# FACTORS CONTRIBUTING TO EXCESS USE OF THE LECTURE METHOD OF TEACHING AMONG HIGH SCHOOL TEACHERS IN SELECTED SCHOOLS OF KITWE AND KALULUSHI DISTRICTS: LESSONS FOR EDUCATIONAL ADMINISTRATORS

By

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A dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the degree of **Master** of Education in Educational Administration of the University of Zambia

THE UNIVERSITY OF ZAMBIA

LUSAKA

2013

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# DECLARATION

I, Jacob Sakala, do solemnly declare that this dissertation represents my own work and
that it has not previously been submitted for a degree at this or another university.
Signed:
Date:

# APPROVAL

This dissertation of **Jacob Sakala**, is approved as fulfilling part of the requirements for the award of the degree of Master of Education in Educational Administration by the University of Zambia.

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#### **ABSTRACT**

Concern has been raised about the overuse of the lecture method of teaching in schools. The study investigated factors contributing to excess use of the lecture method of teaching among high school teachers in selected high schools of Kitwe and Kalulushi districts in the Copperbelt Province of Zambia.

The data was collected using questionnaires and interviews. The key respondents were pupils, teachers, Heads of department and Head Teachers. In addition to using questionnaires and interviews, inspection of some facilities was done to verify the information given by the respondents. Qualitative data was thematically analysed using the themes and sub-themes that emerged from the data. Quantitative data was processed electronically using SPSS that generated frequencies, percentages and tables.

The findings from the study showed that teachers had been exposed to a variety of teaching methods during their initial teacher training. However, down the line as they practiced their career very few of those teaching methods were used. In most cases, teachers resorted to using the lecture method. This study revealed that the factors that contributed to that apathy include: large class sizes, wide syllabi, lack of/inadequate teaching/learning materials, low and demotivating participation of learners due to their background, college/university lecturers and missionary teachers manner of teaching, the need to prepare learners for examinations and tests, lack of supervision, need for teachers to control strictly the learners' academic freedom and the fact that the older the teacher became in the teaching profession, the less one prepared for lessons.

In view of the findings, recommendations were made. There was need to procure teaching/learning materials, formulate and implement policy on enrolment and enhance the pre- and in-service training for teachers. These recommendations were directed to educational administrators including policy makers and executives such as the Ministry of Education as a whole, and in particular Head teachers, teachers and teacher training institutions. From the study results it is expected that educational administrators will have some insight of the causes for the excess use of the lecture method in teaching so as to enable educational administrators effectively plan and implement remedial measures. There is nonetheless, still need for further research on the subject in order to get down to the bottom of the issue.

## LIST OF ACRONYMS

CPD - Continuous Professional Development

DODI - Demonstration, Observation, Discussion and Implementation

DH - Deputy Head teacher

GRZ - Government of the Republic of Zambia

HOD - Head of Department

MOE - Ministry of Education

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

SMARC – Subject Meetings at Resource Centres

TGs - Teacher Groups

OBE - Outcome Based Education

PTA - Parents' and Teachers' Association

Q & A - Question and Answer method

SPSS - Statistical Package for Social Sciences

UNZA - The University of Zambia

# **DEDICATIONS**

This work is dedicated to the following:

# My mother and father

Dad, Ndema Sakala, could not live to see me grow into a man: he died when I was six years old. Mum worked hard single handedly to see me from Grade One up to my twelfth year as a teacher when she died. May their souls rest in peace.

# My wife

Martha Simon Mwanza: loving, cheerful and source of inspiration.

# My Children

Chaiwe, Shadreck, Lucky, Lucy, Jenard, Daliso and Bessy: aim higher.

# My grand children

Lenia, Namakando, Nang'uni, Ing'utu, Stephane: Hopefully, they shall continue with this legacy.

#### **ACKNOWLEDGEMENTS**

A mammoth task like this one would have been in vain without the support of people too numerous to mention. So, I would like to thank all individuals and institutions who gave me academic, material, financial and moral support to make this dream a reality. I would like to extend my thanks to those who directly participated as study sample in both the pilot and final studies whose contributions have culminated into this compilation. Nonetheless, let me single out a few for their specific roles.

Firstly, I wish to express my sincere indebtedness and gratitude to the crucial role played by my supervisor, Dr K. Kalimaposo of the Department of Educational Psychology, Sociology and Special Education who tirelessly and objectively supervised the production of this dissertation from the beginning to the end.

Secondly, I wish to acknowledge the support received from my employer, the Ministry of Education and in particular, Copperbelt College of Education (now being transformed to Mukuba University) for moral, material and financial support. Unreserved

Thirdly, may I candidly thank the lecturers who opened many academic avenues for me during part one of my study for the M. Ed. degree, namely: Dr Alfred Kakanda, Mr. Henry Msango, Dr Peter C. Manchishi, Dr A. Akakandelwa, Dr. Sophie Kasonde-Ng'andu and others.

Fourthly, my course mates, with whom we worked together so well and encouraged one another to achieve our vision. Special thanks also, go to my boarding house-mates and our landlord (Dr and Mrs Sibalwa) for the happy moments we shared together.

Fifthly, I would like to extend my very special gratitude to the following: Mr and Mrs Alfred Sakala (51 Jesmondine, Lusaka), Mr and Mrs Nawa, Mr and Mrs Goodson Banda, Mr and Mrs Reuben Mwanza, Mr and Mrs James Mulwila for the many things (too numerous to itemize) done to me during my studies including their words of encouragement.

Lastly, but surely not the least, my sincere appreciation goes to my dear wife, Martha Mwanza and our lovely children, for their love, support and tolerance during my period of study.

Above all, thanks be to the Almighty God for paving my way of success.

#### **CHAPTER ONE**

#### 1.0 INTRODUCTION

#### 1.1 BACKGROUND

Teaching, according to <u>The Oxford Advanced Learners Dictionary</u> (2006), is the issuing of instruction to an individual for the purpose of learning to take place. Sharpening teachers' skills in pedagogical instructions so as to enhance learning is the ultimate goal for teacher training colleges or universities (MoE, 1996). The quality and effectiveness of an education system depend heavily on the quality of its teachers. Teachers are key persons in determining success in meeting the goals of education in society. Further, the educational and personal well-being of children in schools and indeed after school hinges crucially on the competence, commitment and resourcefulness of teachers. Being resourceful here implies that the teacher is aware of the many techniques of teaching at his/her disposal and employs the most effective and suitable at the right time during the process of teaching for learning to take place.

About three centuries ago, the evolution of the science of teaching started (Kochhar: 1985). Rousseau (1712-1778) for example, advocated for the development of natural instincts of the child without any restriction during the process of teaching and learning as opposed to the traditional informative approach. From this perception, there followed a number of views in its support as a reaction to the earlier views of teaching and learning.

The best known contributors to the emerging pedagogical schools of thought and their stance were: Pestalozzi (1746-1827) – direct experience; Herbart (1776-1841) – interest; Froebel (1782-1852) – kindergarten concept; Montessori (1870-1852) – child freedom; and Dewey (1859-1952) – democracy in education. These advocates nonetheless, basically were agreeable on one fact; that any method a teacher uses has merits and demerits and requires preliminary preparation. These divergent views were all aiming at improving the achievement of the goals of education. The development of different approaches to teaching and learning eventually resulted into several techniques (methods) of delivering lessons in classrooms.

The traditional view of classroom activity, assigns learners the role of passive recipients of facts, and the teacher as presenter of factual knowledge. This has been subject to

criticism by many educational theorists as earlier demonstrated. One of the contemporary critics of this view is Freire who rejects what he terms the banking concept of teaching and learning (Freire, 1972). Educational theorists maintain that learners are responsible for their own learning. They also condemn teaching which reduces learners to empty vessels into which the teacher pours content and expect them to pour it back at testing time and propose participate (active) teaching and learning.

Which method is right for a particular lesson depends on a number of factors, among them; the age and developmental level of the pupil, what the pupil already knows and what they need to know, the subject-matter content, the objective of the lesson, time, space and material resources available. To this effect Kayungwa (2002), from his research on teacher effectiveness, concludes that there is no 'right' method for teaching a particular lesson, but there are criteria that pertain to each that can help a teacher make the best possible decision. Regardless of the teaching method used, a teacher must organize the material properly. Lessons do not stand alone within a subject. There must be a plan of action (Lesson Plan) to lead the teacher and students through the lesson in a logical and coherent manner towards the desired goal for teaching.

In Zambia, over the years colleges and universities, through their faculties of education, have endeavoured to equip trainee teachers with the best and modern techniques of lesson delivery. The fact that these institutions have successfully graduated students is clear testimony that the graduates are capable of being tactful and resourceful in their lesson delivery. However, it has been observed that whilst practicing their profession teachers resort to using one or two of the formal methods of teaching (Lifalalo, 1995).

To that effect the Permanent Secretary in the Ministry of Education wrote to Principals of Colleges of Education (December, 2010) pointing out that it had been observed that graduate and serving teachers were in most cases using teacher-centred type of methods of teaching, that is, the lecture method. In other words, teachers were not using methods that generated creativity and critical thinking in learners. Aga (2005: 50) contends that 'since the same method does not work for every student ... teachers should be advised to use a variety of teaching methods, so as to address the individual needs and preferences of the students they teach'. The learner is not being developed holistically – that is why current pedagogical approaches favour active learning strategies that are equivalent to

lectures in promoting content masterly but superior to lectures in encouraging student thinking and writing skills (Bonwell and Eison, 1991).

This is the source of the concern for this study. The performance of teachers in the classroom is being questioned. Teachers are not taking on board the modern trends in pedagogy. They are unable to adjust in their teaching techniques according to the changing environment and availability or non-availability of resources.

#### 1.2 STATEMENT OF THE PROBLEM

It had been observed that most teachers in schools in Zambia were overly dependent on the use of teacher-centred methods of teaching as opposed to participative methods. To this effect, the Permanent Secretary in the Ministry of Education wrote to Principals of colleges of education on this matter.

The Permanent Secretary contended that the traditional view of classroom activity that assigns learners the role of passive recipients of facts, and the teacher as presenter of the factual knowledge has been criticised by many educational theorists and educators. Modern techniques propose liberal and learner participative methodologies.

There was need, therefore, to find out factors that contributed to excess use of the lecture method of teaching by high school teachers.

#### 1.3 PURPOSE OF THE STUDY

The purpose of this study was to investigate factors contributing to the excess use of the lecture method of teaching among High School teachers in the Copperbelt Province of Zambia.

## 1.4 OBJECTIVES

The objectives of this study were:

- 1.4.1 To find out the teaching methods high school teachers are exposed to while in Colleges of Education or Universities
- 1.4.2 To explore the extent to which the lecture method is excessively used.
- 1.4.3 To establish factors that lead high school teachers to overuse the lecture method of teaching

1.4.4 To find out measures put in place by administrators to encourage teachers to use a variety of teaching methods in high schools.

## 1.5 RESEARCH QUESTIONS

The research questions of this study were:

- 1.5.1 What teaching methods are high school teachers exposed to while in Colleges of Education or University?
- 1.5.2 To what extent is the lecture method used excessively?
- 1.5.3 What factors contribute to the excess use of the lecture method by high school teachers?
- 1.5.4 What measures have administrators put in place to encourage the use of a variety of teaching methods in high schools?

#### 1.6 SIGNIFICANCE OF THE STUDY

This study has generated vital information on factors contributing to excess use of the lecture method of teaching among high school teachers in selected high schools of Kitwe and Kalulushi districts. The findings of this study might be useful to teacher educators, educational administrators, policy makers in education, curriculum developers and other stakeholders who may utilise this information in improving classroom practice among teachers. The desire of the Ministry of Education, Science and Vocational Training is to encourage teachers to adapt to learner-centred strategies of delivery rather than teacher-centred. The study has also contributed to the body of knowledge on learner-centred education from the Zambian context.

## 1.7 DELIMITATION

This study was conducted in the Coppebelt Province of Zambia. The schools from where the respondents were drawn were purposively selected from the urban Kitwe and sub-urban Kalulushi towns.

## 1.8 LIMITATIONS OF THE STUDY

Limitations related to this study were firstly, the fact that the study covered a limited number of high schools; teachers and pupils in the province, the generalization of the findings would be limited. Secondly, the high schools were purposively drawn thereby losing the views of some administrators, teachers and pupils that would have been valuable to this study. Thirdly, in order to have a wider analysis, the study should have covered the Ministry of Education, Science and Vocational Training, provincial educational administrators as well as staff and management of colleges of education and the universities that train teachers.

#### 1.9 OPERATIONAL DEFINITIONS

**Activity-based learning** - learning that ensure learners play an active role practically in the process of learning instead of passively receiving information from the teacher.

**Brainstorming** - an activity involving free thinking of learners with no restriction on quality of ideas but for the purpose of generation of ideas, evaluation and decision-making.

**Cognitive** - mental processes such as knowing, perceiving and understanding

**Collaborative learning** - learning where pupils work with or without their teacher(s) in small groups to complete a task or reach a common goal together

**Competencies** - abilities as they relate to knowledge, understanding and skills

**Constructivism** - a theory that claims people learn by constructing knowledge through social interactions with others and personal experience.

**Context** – setting (in this case) where teaching and/or learning occur: includes social, geographical, political and other factors as related to the learning environment.

Co-operative learning - learning that requires the co-operation of pupils/learners

**Critical thinking** - ability to evaluate claims, assumptions and implications of a particular point of view without simply accepting them as facts

**Continuous Professional Development** - opportunities for individuals to increase their current professional levels of knowledge, skills or values through attending courses or other means without ceasing and progressively

**Facilitator** - an individual who assists in a learning process but does not act as the primary source of knowledge: a guide during learning activities.

**Flexible learning** - learning/education where pupils are allowed to determine their own time for study and topics they will study

**Learner-centred** - learning where the pupil (as a learner) is at the centre of activities. Where the pupil assumes the responsibility and activity for one's own learning while the teacher is responsible for provision of a conducive environment to facilitate learning

**Learning environment -** a place or setting where learning occurs

**Lecture** - a strategy in teaching where the teacher dominates the talking and doing of activities during the lesson while pupils listen passively.

**Objectives** - goals of learning

**Oral skills** - skills related to speech and language fluency

**Outcome** -what learners are able to do, say or think about once the learning process is over.

**Pedagogy** - an approach or process of teaching. The science of teaching

**Research skills** - abilities related to the undertaking of an investigation that includes strategies and tools for accessing and evaluating information

**Resource** - material, either object or person that can be used to provide information

**Role play** - learning activity in which learners act out the roles of other individuals for the purpose of developing particular skills

#### 1.10 CONCEPTUAL FRAMEWORK

To study the factors that contribute to excess use of the lecture method by high school teachers, the researcher was influenced by the cognitive constructivist perspective which explains how learners as individuals adapt and refine knowledge. Poplin (1988) as quoted by Sguazzin and van Graan (1999) contends that learning is not simply the taking in of new information as it exists externally, according to the traditional view; it is the natural, continuous construction and reconstruction of new, richer, and more complex and connected meanings by the learner. To the constructivist, learning takes place when new meanings (knowledge) have been integrated with existing meaning (experience). The following is what constructivism stands for:

- The whole of the learned experience is greater than the sum of its parts.
- The interaction of the learned experience transforms both the individual's knowledge (whole) and the single experience (part).

- The learner's structure of knowledge is self-regulating and self-pre-serving.
- All people are always learning and learning never stops
- The best predictor of what and how someone will learn is what they already know.
- Accuracy follows function and meaning.
- Learning often proceeds from whole to part to whole.
- Errors are critical to learning.
- Learners learn best from experiences in which they are passionately interested and involved.
- Learners learn best from people they trust.

One of the most powerful determinants of whether constructivist approaches flourish or flounder in classrooms is the degree to which individual teachers understand the concept of constructivism and apply it in their classroom environment. Without a kind of working understanding, teachers cannot be expected to link constructivist objectives for learning with appropriate types of instruction and assessment or to adapt constructivist principles to their particular classroom contexts. Implementing learner-centred instruction has proved to be more challenging than many educators realise. It has been reported by Apple (1982), Little (1993) and Purpel and Shapiro (1995) that the most profound challenges for teachers are not associated merely with acquiring new skills but with making personal sense of constructivism as a basis for instruction, reorienting the cultures to be consistent with the constructivist philosophy on which learner-centred education is premised. This could be the genesis of the apathy by serving teachers.

Many teachers, in their early stages of understanding, create for themselves a kind of naïve constructivism whereby they place a lot of faith in the ability of pupils to structure their own learning – a faith that interferes with the development of more sophisticated views of constructivist teaching (Prawat, 1992). This problem of equating activity with learning can be attributed to a belief on the part of many teachers that students' interest and involvement in the classroom are sufficient as well as necessary conditions for worthwhile learning. For many teachers, activities, as opposed to idea creation, are the

starting points and basic units in the process of planning, and little thought is given to the intellectual implications of an activity.

For example, in a study of a school advocating learner-centred education, Elmore (1996) documented the efforts of a teacher who used an "inquiry approach" in a science class. Students were asked to brainstorm about where ants might be found; later, students went out to the playground to count ants in various locations. After students gathered their data, there were no classroom conversations about the purposes of the investigation, the method or the final results as collected. The researchers observed that the students had engaged in "an exciting, hands on activity that consisted of counting ants and reporting the numbers", but without written or oral discourse on possible big ideas about ... the relationship of animals to their environment or ... the scientific significance of the method of investigation.

In connection with the tendency to rely on activity for its own sake, teachers also tend to present abstract parts of a constructivist approach from the whole, which results in distorted understandings of its applications (Cobb and Yackel, 1996).

A teacher who holds a constructivist view of teaching and learning might be expected to show the following characteristics in the classroom:

- A prior awareness of ideas that children bring to the learning situation, and/or attempts to elicit such ideas.
- Clearly defined conceptual goals for learners and an understanding of how learners might progress towards these.
- Use of teaching strategies which involve challenge to, or development of, the initial ideas of the learners and ways of making new ideas accessible to them.
- Provisions of opportunities for the learners to utilise new ideas in a range of contexts.
- Provision of a classroom atmosphere which encourages children to put forth and discuss ideas ... teaching is a relationship and a teacher must adhere to the demands/needs of learners.

According to Burger in Sguazzin and van Graan (1999) good and effective education in the classroom demands:

- A well-prepared teacher
- A competent teacher (academically, pedagogically, linguistically)
- Clear goals and objectives to be achieved
- A selection of best teaching strategies, activities, materials to achieve the objectives
- Resourcefulness and enthusiasm
- Consistent follow-up, consolidation and assessment of learning

As at present the underpinning philosophy of the constructive viewpoint stands out as the best model of pedagogy. This study endeavoured to explore what hinders the development of this approach among teachers from selected high schools.

#### **CHAPTER TWO**

#### 2.0 LITERATURE REVIEW

#### 2.1 INTRODUCTION

This chapter explores the literature documented on teaching, teaching techniques and learning. Firstly, the historical development of teaching is presented, then methods of teaching will be discussed. These will be followed by a look at the current views on teaching and learning and, finally, the effective classroom teacher is discussed.

## 2.2 HISTORICAL DEVELOPMENT OF PEDAGOGY

Teaching is an art – it is the art of planning, explaining, showing, questioning and answering in a teacher-pupil relationship (Petty 2004). Further, according to Hornby (2006:1517) to teach is to 'show somebody how to do something so that they will be able to do it themselves'.

# Loughran (2006:2) writes that:

Teaching and learning are seen as being linked in powerful and important ways that the intention implicit in the use of the term is that teaching purposively influences learning and vice versa. Therefore, pedagogy is not merely the action of teaching (which itself can easily be misinterpreted as the transformation of information), more so, it is about the relationship between teaching and learning and how together they lead to growth in knowledge and understanding through meaningful practice.

About three centuries ago, the traditional view of imparting knowledge, skills, attitudes and values to a learner was that 'the child was treated as a pitcher into which the teacher poured "gallons of empirical facts!"... the child was made to remain quiet and receptive; the teacher was a dictator', explains Kochhar (1985:1). That is, the teacher was all-knowing who needed not to be questioned or challenged over what was delivered to the learners especially by the learners themselves. The genesis of modern teaching techniques has been summarized as discussed below.

Before the 17<sup>th</sup> century the science of teaching hinged on being informative where the learner was a pitcher and receptive of knowledge from the 'know it all' teacher.

Facilitators of learning were authoritative and information to be imparted to learners was derived from written records in books only.

This approach to teaching was first criticized by Rousseau J J (1712 – 1778). Rousseau was a naturalist who believed that in the imparting of knowledge educationists should consider the nature of the child. During the process of learning this should be explored. He observed that a child was innately good and should have the freedom to behave and develop naturally.

Then, Pestalozzi (1746 – 1827) added his view to pedagogy. He contended that learning took place through direct experience. Valuable lessons were learnt through direct experience with objects, places, observations, inquiry and reasoning. Therefore, there was need to develop the child's instincts without restriction. He emphasized that children must be taught as children. However, they should not be taught the three Rs, that is, Reading, Writing and Arithmetic, only but also practicals such as weaving, house-keeping and farming to provide wide but natural experience.

Herbart J. F (1776 – 1841), was a philosopher and educationist. He developed the doctrine of 'interest' in the field of pedagogy. His major contribution was that accumulation of facts was a result of interest and the motivation to derive meaning of experiences. Children learn new knowledge by recalling relevant past knowledge as a motivator. When learners build interest in old information they are more receptive to innovations and new information. Learning will thus lead to character formation. Education henceforth, was considered ethical and moral. The task of the facilitator must therefore, be to evoke this interest in a learner and maintain it by the use of appropriate teaching techniques.

Further, between 1762 and 1852 another school of thought on this subject, called the kindergarten concept, was propounded by Froebel F. W. A. He was an educator. Picking it up from Herbart, he advocated that child interest had potential. There was need to develop that potentiality in the educational process through emphasis on activity from childhood as well as social participation throughout life. His emphasis was that child play and activity were natural and could be intellectualized as a means of instruction to attain lesson objectives as well as a happy classroom spirit.

Later, Cook Caldwell, another educator, further explored Froebel's Kindergarten principle and advocated the 'play-way teaching', that is, school with fun. In a school situation play would imply a learner doing an activity wholeheartedly but with leisure. It was understood that a child learns best with interest, purpose and sees significance in what s/he learns when done with leisure. This approach discarded drill and exercise since they emphasized memorization and proposed rigorous mental training.

Child freedom and auto-education in the process of learning was the next school of thought. The idea was developed by Montessori Maria, an environmentalist (1870 – 1952). The development of a child should be propelled from within self. Latent powers must be unfolded in the learner through liberal methodologies of teaching. Montessori believed that 'every stupid child or man is a product of discouragement'. If given the right environment and resources, education can mould a learner to a desired product.

The major thrust in the advocacy of pedagogical change was by John Dewey (1859 - 1952). He was a philosopher, educationist and humanist. His experience in the various areas of human activity might have compelled him to suggest that there was need for democracy in education – an education by, of and for experience. The learning process must cater for the whole child specifically referring to learning from experience and activity in contrast to rote learning. Education should provide learners with real life situations and experience, that is, a combination of theory and practice. It was found that a child or man does not learn exclusively with the mind or with the body but with the body-mind. This view refocuses bookish learning. Book-learning was only a part perhaps not the most important part of education.

This has been the changing paradigm of pedagogy. The realization and eventual shift from the traditional receptionist view to the more humanistic and constructive modes of teaching are trends that have been embraced more these days. What was clearly learnt from those early educationists was that no one method was appropriate for all lessons. Each lesson was unique just as each group of learners was different from the other. That was more of the reason for each one of the above advocates seeking a better approach to the teaching and learning process so that education become meaningful to an individual and society.

In the same line, I agree with Loughran (2006) who suggests that, not only must both teachers and pupils pay careful attention to the subject matter being taught, but also

simultaneously pay attention to the manner in which that knowledge was being taught ... and both must overtly be embraced. To have an effective classroom outcome it would be necessary to blend all pedagogical theories put forward by the advocates. Classroom freedom must be exercised within the context of gaining knowledge, skills, attitudes and values for the present and future.

#### 2.3 METHODS OF TEACHING

In order to make an informed choice of the best teaching and learning strategy, Petty (2004: 137) points out that a teacher must know:

...what teaching methods are available, what the strengths and weaknesses of these methods are, what purposes each of them can serve and how each should be used in practice .... Which learning activities or teaching methods you choose, and how you use them, will not depend only on your purpose. It is crucial to consider also your students, the physical environment such as the room and the equipment available and the emotional climate.

This is because a teacher must be observant and responsive to what happens in class. Probably the best teaching method ought to take into account the interests of the teacher and most importantly those of the learners. It is clear that teaching is more than appearing before a class and merely applying specific techniques. Kochhar (1985) describes teaching as '... an intricate, exacting, challenging job'.

Broadly, all teaching methods can be grouped into two, namely: teacher-centred and learner-centred. The teacher-centred teaching methods are referred to as didactic or formal teaching methods. They include all methods of instruction in which the teacher dominates the class activities and allow only minimal or no active participation at all from learners. Dominance in this case arises from the fact that the teacher is older than the learners and, therefore, is more knowledgeable and experienced than the learners under his control. There is thus, pleasure in an adult exercising absolute class authority. The teacher dominates the lesson with a verbal in-put while the learners remain 'attentively' quiet (loyal) as recipients of the knowledge, skills and values.

In contrast, the learner-centred approach is where the teacher's instructions in class take into account the learners as partners in classroom activities. Hopkins (1996) says there is

dialogue and collaboration in the teaching learning situation. This process permits the teacher and learners to participate in classroom activities as equal partners. The teacher is a facilitator and the responsibility of the actual learning is placed on the learner since the relationship between the teacher and pupil generally still remain as that of 'expert' and 'novice'. The learner-centred technique assumes that the learner is capable of learning through tapping from the teacher's, including one's own, experiences to build new meaning. The learner is not a fixed recipient of knowledge.

Some of the teacher-centred modes of delivery include: lecture, direct observation, indirect observation and demonstration. If the teacher employs the lecture mode of delivery then the pattern of interaction is teacher initiated (Open University, 1976; Good, et al, 1980). Research conducted in American schools revealed that teachers resort to the lecture method of teaching because it was convenient for explanation, could easily be adapted to the correct level for the class and very little preparation or resourcing was required on the part of the teacher (Darling-Harmond, 1992). Furthermore, it was a rapid method of presenting and covering subject material. Nonetheless, most critics have argued that use of that mode of delivery made learners to be bored and inactive as they were not required to form an understanding or construction of knowledge (Walford, 1981; Fien, et al 1984; Fontana, 1988). As a result of this, pupils' retention was very low – the teacher got very little feedback on the acquisition of knowledge by the learner.

The learner action-demanding modes of delivery, referred to as learner-centred techniques include among others: discussion, project, discovery, debate, role-playing, simulation, question and answer, problem solving, inquiry and field study. As prescribed by Kochhar (1985), learning is a sum total of growth, adjustment, experience, intelligence and action. The learner-centred methods take into account both the cognitive and emotional development of a human being. Since the learner is an active participant during the process of teaching and learning, Capel, et al (2005:67) adds that this approach is advantageous because:

... learning activities are structured by the teacher in such a way that they match the needs of the learner, that is, tasks develop the individual pupil's knowledge, skills, attitudes ... that the pupil is applying past knowledge as appropriate and laying the foundation for the next stage of learning.

Learners respond differently to different methods of teaching. Also, learners have their unique way of demonstrating the knowledge acquired and absorbing the information that was imparted in them. So, to aid this process of demonstrating the knowledge, the teacher has to adopt a technique that assists the learners in retaining the information and increasing their understanding span. This is what was advocated for by the legend advocates that there be a shift from traditional to the collaborative and social learning.

The following is a discussion of some of the methods of teaching used in education:

## 2.3.1 Lecture Method

This is a process of verbally delivering a pre-planned body of knowledge to a class in a one way teacher to pupil style. Petty (2004: 155) simply says 'a lecture is where information passes from the notes of the teacher into the notes of the pupil, without passing through the brains of either'. James as cited in Kochhar (1985) was apt when he wrote that "the lecture is a pedagogical method whereby the teacher formally delivers a carefully planned expository address on some particular topic or problem". Explaining (lecturing), nonetheless, is one of the very important teaching methods in education. It is where the teacher presents the factual information in a direct and a logical way.

While adopting this method the teacher gives an introduction and a summary ensuring that information is specific to the learners. The explanation is usually accompanied with suitable examples for the better understanding by the pupils.

Advocates of this method argue that it could be used to introduce the lesson, clarify issues, review and evaluate a point in a lesson or expand or restrict the contents. It gives learners a chance to attain skills in listening and writing notes. The teacher is able to cover a lot of material in a period of time. However, this method has been heavily criticized because learners are not required to be active during the lesson but rather consent to the teacher's authority. The teacher is the only transmitter of knowledge. Therefore, it makes the learner passive and lessens the opportunity for the learner to 'learn by doing'. It does not guarantee understanding as the pace of the teacher might not appeal to all students and the learners may be bored due to monotony of the lecture. Therefore, the method should be used sparingly and carefully.

#### 2.3.2 Direct Observation

This is a process in which the teacher makes available a phenomenon and pupils observe features of such phenomenon by watching, for instance, a film or video. The role of the teacher is to provide a set of themes/characteristics to be observed after which a discussion ensues or an exercise is given.

#### 2.3.3 Indirect Observation

This is a process in which pupils observe features/patterns about a phenomenon for example, a topographic map, a diagram or photograph. The teacher must direct the pupils to observe features or characteristics which will help learning to take place through interpretation. This is used when the teacher wishes to employ images such as pictures, photographs, posters, shapes and patterns, diagrams, cartoons, overhead projector transparencies, logos which through seeing creates visual representations.

In both direct and indirect observation, teachers usually are unable to effectively discuss what has been observed by the pupils; instead they promptly give what they know.

#### 2.3.4 Demonstration

This is a method of delivery of audio-visual explanation in which the teacher emphasizes important points of a process, product or idea. Demonstration is 'showing how' by example (Petty: 2004). The instructor must show students the actions necessary to perform a skill. As little extraneous activity as possible should be included in the demonstration if students are to clearly understand that the instructor is accurately performing the actions previously explained. If, due to some unanticipated circumstances the demonstration does not closely conform to the explanation, this deviation should be immediately acknowledged and explained.

Student performance requires students to act and do. To learn skills, students must practice. Through doing, students learn to follow correct procedures and reach established standards. It is important that students be given an opportunity to perform the skill as soon as possible after a demonstration. In flight (aircraft) training, the instructor may allow the student to follow along on the controls during the demonstration of a manoeuvre. Immediately thereafter, the instructor should have the student attempt to perform the manoeuvre while supervising and coaching are going on.

This method is appropriate for teaching physical (psychomotor) skills such as making a dove tail joint in Wood Work lesson, using the Pythagoras' Theorem in Mathematics or writing a letter of appreciation in composition writing. The point in using this methodology is that after a successful demonstration by the teacher 'pupils learn by doing' what the teacher was showing them. Teachers however, are less keen in supervising and coaching after conducting a demonstration.

#### 2.3.5 Discussion

To discuss is to examine, analyse carefully and give reasons, pros and cons, merits and demerits or advantages and disadvantages. In using this method, the teacher introduces a problem (topic) and allows pupils, as a whole class or in smaller groups, to participate in solving it or arriving at a common conclusion agreeable to all.

Teachers should organize small groups of approximately three to six members so that students are mixed heterogeneously, considering academic abilities, ethnic backgrounds, race, and gender. Students should not be allowed to form their own groups based on friendship or cliques. The main advantages with heterogeneous groups are that students tend to interact and achieve in ways and at levels that are rarely found with other instructional strategies. They also tend to become tolerant of diverse viewpoints, considerate of the thoughts and feelings of others, and seek more support and clarification of various opinions. This is typical of co-operative learning – an instructional strategy which organizes students so that they can work together to maximize their own and each other's learning.

So, after the pupils have been carefully introduced to the issue at hand, they are expected to express their complete views by giving details backing their point of view. Heated arguments may arise while discussing, but all that happens in the spirit of arriving at an agreed upon conclusion.

The essence of this method is 'freedom of expression' that eventually, as Capel, et al (2005) say, will bear the fruits of active learning, efficiency in communication and language and motivation. Group discussions motivate the pupils to perform in a team, show leadership skills and enhance the presentation capabilities of individuals as well as the group itself. Teachers however, do really manage to control the content and duration of the discussion.

## 2.3.6 Project

A project is a teaching and learning method where an individual pupil or group of pupils carry out an activity on a component of a particular topic in a subject in order to attain a desired goal. Usually, pupils are given considerable autonomy over how, where, when and in what order the task will be carried out. Projects are usually more open ended – they give learners an opportunity to use, that is to practice and apply skills and knowledge and so come to a deep understanding that a 'realistic context' explains. This usually arises from a topic taught or a demonstration done in class by the teacher after which pupils carry out a project activity and are expected to show some well-defined competence through handing in a project report.

The advantage of the Project method is that it can be used among others, to improve skills that enhance creativity and problem-solving.

Project based learning places the most emphasis on topics of every day concern, that, through the teacher's guidance, enable pupils to explore and solve problems together with their peers (Lee and Tsai: 2004). Projects are usually completed out of class in pupils' own time. The teacher's role is to design the assignment, brief the pupils and become a learning manager and facilitator. As the work is being done, the teacher checks the progress and requests for improvement where necessary so as to enhance success and motivation. To achieve the goals of the lesson, planning is as important as making follow-ups.

## 2.3.7 Discovery

This is where a pupil internally mediates some concept or principle leading to an effective way of solving a problem or to the grasp of an insight. This is 'teaching by asking' to 'doing-detail'. Petty (2004: 296) illustrates this. He asks; 'How could a discovery or 'teaching by asking' approach be used to teach the following?'

For a circle of any size, the ratio of the circumference to the diameter is 3.14 ( =  $\pi$ ).

Then, he suggests a discovery method as follows:

Assuming the learners are familiar with the concepts of circumference and diameter, the teacher could say: 'Measure the

different sized circles I have given you, and see if you can see any patterns in your data.'

This method is preferred because it is active, involving, motivating and fun to learners. In addition, pupils are encouraged to make their own meaning, that is, they create their own understanding of the subject matter. Furthermore, since it involves higher-order thinking, pupils are more likely to remember what they worked out on their own. Ausubel (1968) sees discovery learning as an excellent method of producing integrated teaching and learning.

#### **2.3.8 Debate**

Debate or debating is a formal method of interactive and representational argument. It is a broader form of argument from axiom and factual argument, which only examines what is or is not the case or rhetoric. Debate is a learning situation in which a class is divided into (two or more) groups to discuss the merits or demerits, pros and cons, in a form of argument for or against a given topic. It is a formal discussion or argument expressing different opinion on a topic where a conclusion cannot easily be arrived at and so a vote by independent judges is preferred to arrive at the way forward (Hornby, 2006).

Though logic, consistency, factual accuracy and some degree of emotional appeal to the audience are important elements of the art of persuasion, in debating, one side often prevails over the other side by presenting a superior 'context' and/or framework of the issue, which is far more strategic. While rhetoric is important and reflected in the 'speaker points' given to each debater, each round is usually decided based on who has 'won' the argument according to the evidence and logic presented.

In schools and colleges, debate often takes the form of a contest with explicit rules. It may be presided over by one or more judges (teachers). Each side of the debaters seek to win by following the limits of the rules. Each side is either in favour ("for, 'Affirmative' "), or opposed to ("against, 'Negative' "), a statement (proposition, controversy or resolution) which if adopted would change the view point.

In a classroom debate contest, there are rules for learners to discuss and decide on differences, within a framework defining how they will interact. The teacher comes up with rules of interaction so as to enable the debate achieve the goal(s) of the lesson. The topic for the debate would be given to the participants between ten and fifteen minutes

before the class debate starts. The debate format is relatively simple; each team member of each side would speak for, say five minutes, alternating sides every after the five minutes. A ten-minute discussion period, similar to other discussion formats follows and then a five-minute break. Following the break, each team gives a four-minute rebuttal. The class is thereby made to accept one view/opinion or the learners are left on their own to draw an independent conclusion.

Debates are useful when discussing social, economic or political issues that have no clear cut point of view and are quite controversial, for example, abortion, girls' re-entry policy, use of condoms as a way of combating HIV/AIDS, and many others.

The quality and depth of a debate improves knowledge and skill of the participants as debaters and learners. Learners develop language fluency, proficiency and skills of logical presentation of ideas as well as tolerance of other points of view. In addition, learners improve their aspects of showmanship and critical thinking. Teachers use debates to persuade learners to strengthen their points of view, or indeed drop their weaker opinions on things. However, the major goal of debate as a method or art is to develop learners' ability to play from either position with equal ease.

#### 2.3.9. Role playing

This is a teaching and learning situation in which individuals or groups of pupils are assigned roles in which they perform and display actions to the solution of the particular problem. A role-playing game is one in which the participants assume the roles of characters and collaboratively create stories from real life situations. Participants determine the actions of their characters based on their characterisation. Within the rules, they may improvise freely; their choices, shape, the direction and outcome of the games. Role-playing is a form of simulation

Role-playing may also refer to role training where people rehearse situations in preparation for a future performance and to improve their abilities within a role. The most common examples are occupational training role-plays, educational role-play exercises, and certain military war-games. It is the taking on of a role, either unconsciously to fill a social role or consciously, of an existing character or person and acting it out with a partner often involving different genre of practice.

Role-playing methods emphasise the fact that directed activities give reality to learning. Such activities are meant to provide varied experiences to the learner to facilitate the acquisition of knowledge, experience, skills and attitudes. Through personal attachment the learner builds self-confidence and develops understanding by work and play in the group and in a classroom situation. Kochhar (1985: 316) concludes that 'teachers should furnish children with rich and purposeful learning experiences... that challenge aspirations to fuller understanding'.

Just like Froebel (1782-1852), earlier discussed argues, play, as the language of young people, facilitates and encourages sensory and perceptual experience and leads to construction of knowledge. It affords a safer release of physical and mental energy, relieves emotional tension and provides valuable theoretical and practical accolades. Through this method, teachers therefore, aim at giving joy, freedom and contentment to the learners during the process of teaching and learning. It is the planning and giving pupils freedom that teachers are often reluctant to do and give respectively.

#### 2.3.10 Simulation game

A simulation game is a process in which pupils learn by participating in a make-believe situation that requires decision-making about issues in real life. The teacher or pupil imitates a particular role of a person or actual life situation. The simulated phenomena are based on the assumption that certain patterns of behaviour can best be described, practiced, discussed and understood when acted upon in the classroom situation. Simulations model a real world environment in a simplistic way so as to help a learner develop an understanding of the key concepts. Normally, a user can create some sort of construction within the micro-world that will behave in a way consistent with the concepts being modelled (Percival, et al, 1993).

The simulation exercise should be well planned for. A small group of four or five pupils may be selected to act out the roles. The roles should be rotated to give chance to as many pupil actors as possible such that by the end of the day each member will have the opportunity of being an actor and the observer which is an important ingredient for the discussion which follows every game. The procedure of coming up with a simulation lesson (activity) involves the teacher selecting the role players, selecting and discussing skills, planning, deciding the procedure of evaluation and providing practical lessons.

According to Aldrich (2003) this method is preferred because it establishes a setting where theory and practice can be effectively combined. It motivates pupils through active involvement. Pupils obtain experiences and become critical, for instance, if the game was on family planning (social simulation), apart from gaining knowledge on the advantages and disadvantages some pupils who are in their puberty stage may voluntarily wish to practice what has been learnt. Thus, decisions are made and carried out without physical or psychological harm to pupils or schools.

However, critics point out that if classroom teaching is to be carried out using this method effectively a lot of time is needed. You need good simulators to help drive the point home.

#### 2.3.11 Question and Answer (Q + A)

This is a moment in class when questions are either teacher-initiated or pupil-initiated to further pupil understanding. Testing and questioning are always known to be effective teaching methods due to the interactive nature and higher levels of concentration.

Questions may be asked by the teacher with an intention to know what the student has learnt from earlier discussions or activities and that it helps in deciding what should be taught further. This can be even vice-versa, that is, pupils questioning their teacher to clarify the doubts in order to enhance their understanding of the subject matter. The inquisitive instinct of the pupils evokes them to ask questions and quench their queries.

The teacher encourages this in a positive way so that the student's critical thinking and promptness are developed. So interaction between the teacher and learners is increased and reinforced. Teachers may use Q+A to tease and subdue pupils, while some pupils find it inappropriate to quiz their teacher.

## 2.3.12 Problem-solving

Problem-solving is a mental process that involves discovering, analysing and solving problems. The ultimate goal of problem-solving is to overcome obstacles and find a solution that best resolves the issue (Reed, 2000).

The way in which people solve problems best depends largely on the unique situation. In some cases, people are better off learning everything they can about the issue and then using factual knowledge to come up with a solution. In other cases, creativity and insight are the best options. Both cases are vital in utilizing problem-solving as a method of

teaching. It is where either the teacher structures an initial lesson with a task (guided problem-solving) or introduces a task (modified free problem-solving) and then assumes the role of a resource person to assist pupils as individuals or in groups in solving that problem.

The major advantage of this method is that it enables learners to develop strategies and organize own knowledge in order to come up with solutions to problems. Pupils are trained to identify problems, define the problem, formulate strategies, organize the necessary materials or information and monitor progress or results.

## **2.3.13 Inquiry**

This is a teaching and learning technique in which pupils themselves formulate a problem and themselves devise techniques for solving it. The purpose of inquiry is to reduce doubt and lead to a state of belief, which a person may call knowledge or certainty. Research is a kind of inquiry meant to consolidate knowledge of facts, ideas or values.

# 2.3.14 Field (Study) – trip

As the name suggests, this is a situation in which pupils are allowed to go out of class to observe a phenomenon, seek and record information, reason and draw conclusions as they encounter the phenomenon face to face.

For instance the teacher may want pupils to understand how the manufacture of a certain product is done in an industry. A field-trip may be organised where pupils are taken to an industry where such an activity takes place to accord them a chance to see for themselves. The advantage lies in the fact that 'seeing is believing'. Both the learners and teacher however, do not realise the link between what they saw and the lesson in class.

# 2.4 CURRENT VIEWS ON TEACHING AND LEARNING

When we go back to the historic Rousseau, Pestalozzi, Froebel, Montessori, Dewey and many other philo-psycho-educationists, their contribution to the development of pedagogy in the world is interwoven and indisputable – they are great teachers of the world (Kochhar, 1985). Their contribution and influence to the field of teaching and learning has led to the modern search for the best ways of passing on as well as acquiring knowledge, skills and values.

The realization and eventual shift from the traditional receptionist view to the more humanistic and democratic modes of teaching and learning is a trend that is being more and more being advocated for and embraced now. Hopkins (1996) describes the the former as where the teacher pours knowledge into learners and learners reciprocate by memorizing and recalling the facts and figures. The curriculum is not negotiable since the learner merely receives it and has no choice. Further, young people do not make application of knowledge in unforeseen circumstances as the system does not encourage flexibility in circumstances – it restricts liberal thinking since the learner highly depends on the teacher.

Further, Hopkins (1996) continues and contrasts the receptionist view with the modern constructivist mode of learning. The constructivist model of teaching and learning entails that the teacher is a facilitator of learning while the learner constructs knowledge through activities in the classroom and experience. Activities are based on the assumption that learners are teachers and teachers are learners since teacher-pupil hierarchies are broken down. The learner is a participant in the process of knowledge acquisition and not a passive and 'loyal' listener. Learning is based on dialogue, collaboration and concerted effort. Constructivism takes a holistic view of the learner as a human being that is, by considering emotional aspects of learning and the dynamics of learning that include contexts, purposes, effects and outcomes of learning. A teaching method is seldom used all by itself. In a typical lesson, an effective instructor normally uses more than one method. For example, a demonstration is usually accompanied by a thorough explanation, which is essentially a lecture, and then a practical (psychomotor).

The most dramatic development in the recent past in this direction is the introduction of technology. Use of technology in education, and in teaching and learning in particular, has been welcome because it seems to 'give instruction more scientific, make instruction more powerful, make learning more immediate, and access to education more equal' (Hopkins, 1985). For example, the use of audio-visual aids as instructional devices, makes learning become meaningful, enjoyable and effective. This is so because they give variety to classroom techniques, providing the learner with opportunities to handle and manipulate objects (first-hand experience), supplying the context for sound or skill and they provide understanding and generalization. Audio-visual aids may furthermore, provoke debates, discussions and discovery learning.

Of more recent is the development and use of computers, calculators and television in teaching and learning. Petty (2004: 375) warns us when he says:

...if we don't teach our students how to find trustworthy computer resources, and how to learn from these, then we are not preparing them for real life, or for life-long learning, or for progression on to their next course.

This is to emphasise that this is the computer age. In other words, the computer has become such an important resource to teaching and learning such that, as a teacher if you do away with it you do that at your own peril. Computers are useful in data processing and displays, transfer and record keeping of information, playing simulation games and delivery of programmed lessons. Lee and Tsai (2003:31) have followed this development and thus explain and advise that:

with the great progress of science and technology, the information industry has grown enormously, which in turn has caused fundamental changes in people's learning styles and has helped usher in a knowledge based economy ...we urgently need to teach students at faster pace or guide them in 'learning how to learn' and in 'co-operative learning with others'.

Co-operative learning is one of the tenets of the constructivist model of learning. It helps pupils elaborate upon information through interpersonal discourse, and this may provide a higher level of thinking. This interaction stimulates pupils to put forward and order their thoughts to understand the ideas or questions of their peers.

### 2.5 CONSTRUCTIVISM IN PRACTICE

Constructivism, according to Tobin (1993), is a view that holds that knowledge is personally constructed but socially mediated. In the classroom, the teacher takes into account of what learners already know, maximizes social interaction between them such that they can negotiate meaning and provide a variety of sensory experience from which learning is built. This view also holds that the teacher is a learner and as a facilitator, he guides learners, puts language to their understanding, clarifies, elaborates, justifies and evaluates the learning. The teacher and the pupils have to work (co-operate) as a team.

There is a lot of pupil-teacher, pupil-pupil collaboration as well as subject-subject, subject-environment integration. In terms of assessment the model demands a

considerable competence in knowledge, interpretation, presentation, discussion, debate and projects.

Now, the call is to utilise constructivism. Constructivism as a reflective tool (Tobin: 1993) empowers teachers and enables them to fashion learning activities to the circumstances in which they find themselves. Thus, teachers can focus planning and implementation strategies on the needs of learners as they understand them from a constructivist perspective. After all, a teaching method is seldom used all by itself. In a typical lesson, an effective instructor normally uses more than one method as explained earlier.

It is important to place constructivism in a historical perspective before looking at the challenges teachers face in the implementation of constructivist pedagogy. In the late 1800s, Francis Parker led reforms in Quincy, Massachusetts and at Chicago's Cook County Normal School based on the child-centred theories of Rousseau, Froebel and Pestallozi (Farnham, 1990). Emphasis was placed on learning in context, for example, by taking students on trips across the local countryside during Geography classes rather than having them recite names of countries and capitals. In 1919, Helen Parkhurst founded the Dalton School on similar principles that school programmes should be adapted to the needs and interests of the pupils and those pupils should work to become autonomous learners (Semel, 1999). Similarly, John Dewey routinely used the common experiences of childhood as starting points for drawing his learners into the more sophisticated forms of knowledge represented in the disciplines. Dewey intended that educative experiences be social, connected to previous experiences, embedded in meaningful contexts, and related to pupils' developing understanding of content (Dewey, 1938).

Although challenges associated with constructivist teaching have precedents, the nature of constructivism itself, as a learning theory and the general character of schools today combine to form a context for teaching that is unique in several ways. As the basis for progressive pedagogy, constructivism is heavily grounded in psychology and social science research (National Research Council, 2000), both of which have intellectualised the perception of learning (Ayers, 1991) and have helped to distinguish between teaching approaches based on constructivism and those more generally labelled as "teacher-centred". Additionally, contributions of interpretive research paradigms have provided important insights into the social and cultural influences on knowledge construction. In

line with findings from research, theorists have proposed new ways of framing the act of teaching, for example, as co-constructing knowledge with pupils, acting as conceptual change agent, mentoring apprentices through the zone of proximal development, and supporting a community of learners.

Other distinctions between historical and contemporary education have to do with conceptions of learning and instruction. Philosophers have suggested different "constructivisms" according to Nola (1997). However, the literature relevant to educators can sensibly be categorised in terms of cognitive and social or cultural emphasis. Depending on which paradigm a teacher prefers, the goals, learning activities, and even the culture of the classroom can differ dramatically. Cognitive constructivism is perceived as a system of explanations of how learners, as individuals, adapt and refine knowledge (Piaget, 1971). In this view, learners actively restructure knowledge in highly individual ways. Cognitive constructivism posits that meaningful learning is rooted in and indexed by personal experience (Brown, Collins and Duguid, 1989) and learners maintain ideas that seem reasonable to them.

In contrast to cognitive constructivism, social constructivism views knowledge as primarily a cultural product (Vygotsky, 1978). From this theoretical perspective, originating in the work of Lev Vygotsky and elaborated by members of the sociohistorical school, knowledge is shaped by micro and macro-cultural influences and evolves through increasing participation within different communities of practice (Cole, 1990; Scribner, 1985). Whereas cognitive constructivism focuses on the internal structure of concepts, social constructivism focuses on the context of their acquisition (Steiner and Blackwell, 1990). Vygotsky also introduced the "zone of proximal development," the notion that developing mental functions must be fostered and assessed through collaborative activities in which learners participate in constructive tasks or problem solving, with the assistance of more knowledgeable others. Through this assistance the child internalises the supportive talk and tactics used on the social plane and becomes able to accomplish such tasks independently. From the social constructivist perspective, a major role of schooling is to create the social contexts for mastery and the conscious awareness of the use of cultural tools so that individuals can acquire the capacity for higher – order intellectual activities (Olson, 1986).

Constructivist classroom approaches involve fundamental shifts in how teachers typically think about instruction, from focusing exclusively on dispensing content to placing students' efforts to understand at the centre of the educational enterprise. The traditional didactive relationship between teacher and student is replaced by one that is more interactive, complex and unpredictable according to Hammond (1996) and Glaser (1990). In a study of 24 schools that were engaged in constructivist approaches, Newman and Associates (1996) found that the most progressive teachers scored considerably below the researchers' highest levels for constructivist pedagogy. Lampert (1989) and Noddings (1990) noted that the first of several specific challenges in designing constructivist lessons is that teachers must include conjectures about student thinking as well as the 'incomplete understandings, and naive understanding of concepts that learners bring with them to a given subject,' as key elements of instructional decision making (National Research Council, 2000). This is not a straight forward task, for example, in a study of teachers' efforts to help 10-year olds develop an understanding of taxonomic categories of animals, Panofsky, et al (1990) found that children would actively engage in sorting and grouping but that their particular categorization were frequently unavailable to teachers. In the language arts, McLane (1990) found that teachers routinely have difficulty in discerning the communicative intentions of a beginning writer. In working with young learners on geometric concepts, Bastable, Schifter and Russell (2003) in their study on a second-grade teacher reported that the teacher needed to use extensive conversations and deep probing to discover that her students would identify a three-sided shape as a triangle only if it was sitting on its 'base'. Heath (1983) contends that when children are involved in active explorations, they move toward systematization of their knowledge but according to the parameters of their own conception-conceptions that are not well defined even in the mind of the child. If teachers can get a sense of students' conceptions, then they must employ a range of facilitative strategies to support students' understandings as they engage in the problem-based activities that characterise constructivist classrooms. These strategies can include gradual approximation of practice, in which the most difficult components of complex tasks are strategically facilitated by the teacher; modelling, in which the teacher either thinks aloud or acts out how they would approach a problem; coaching, guiding, or advising, which are loosely defined as providing prompts, probes or suggestions to learners at varying degrees of explicitness; providing heuristics or conceptual structures for learners to use in approaching problems;

and using various technologies that help learners select, organise, and represent information and ideas (Choi and Hannafin, 1995).

In the constructivist classroom, facilitation becomes an elaborate set of strategies from which teachers select to support the increasingly autonomous intellectual work of pupils. For example, Hammond, Ancess and Falk (1995) tell how a group of expert language art teachers 'scaffolded' their students' learning through successive conversations about the purpose of writing and collaborative experiences that took them from their various starting points to proficient writing performances. Facilitative strategies in this case included providing opportunities for approximation and practice, debriefing and conversing, sharing works in progress, and guiding the revision of work. Similarly, Tharp and Gallimore (1988) describe how a skilful third-grade teacher elicited ideas from students about people they admired, then helped mediate classroom conversations through careful questioning strategies so that the students build on their original ideas to develop more sophisticated understanding of the concept of 'hero'.

### 2.6 AN EFFECTIVE CLASSROOM TEACHER.

The question is 'Who is an effective classroom teacher?' In his research on this matter, Kayungwa (2002) discussed an effective teacher as one who achieves set goals by administration and the government of the classroom. On teaching methods he says that an effective teacher should not only be eclectic but also use vigorously the pupil-centred approaches such as discovery, group work or role play in addition to adequate preparation, knowledge of material available and interesting presentation.

However, teaching nowadays has been accused of facilitating movement of people out of the traditional sector into modern sector – a movement which has not yet been created. This has rendered the teacher irrelevant to the objective needs of society, because teaching is not based on life experience, cultural realities and environmental cues. Mazrui (1975: 198) maintains that:

The cultural goods which African countries import include course content, language of instruction, and evaluation. Instead of teaching African language, music and folk culture, the schools continue to sell cultural goods marked 'made in Europe'.

When a teacher attends to (teaches) his class, students pass examinations (learn) and, parents and administrators are happy, such a teacher is said to be effective in the classroom, but is he? Modern classroom practice processes stress fundamentals thus far by emphasizing on the learner, guiding the learner and promoting learner development. In addition to memorizing and reproducing knowledge, an effective teacher is also one who aims at enabling learners demonstrate skills of interpretation, analysis, application and critical thinking.

Nonetheless, the question is: despite the graduate teachers being endowed with all this knowledge of the trends and skills in the science of teaching, why do high school teachers in Zambia overwhelmingly use the less preferred lecture method of teaching? This is the purpose of this study.

### **CHAPTER THREE**

### 3.0 METHODOLOGY

#### 3.1 INTRODUCTION

This chapter describes the research designs which were employed: the population, methods and procedures which were used in data collection and how the data was analysed. It further describes the target population, sample size and the sampling techniques. In addition, analysis as well as the data collection instruments used in the investigation are discussed.

### 3.2 RESEARCH DESIGN

A descriptive survey design was used. The study sought teachers and administrators' views on the factors contributing to the excess use of the lecture method of teaching in high schools. The investigation was conducted contextually and holistically in the districts and schools selected. The reason for choosing such an approach was to allow for a detailed and in-depth investigation of the factors in the areas under study.

## 3.3 STUDY POPULATION

The target population comprised teachers, pupils and school managers (Head teachers and Heads of Department) from the selected schools. The study was conducted in the Copperbelt Province of Zambia in the high schools of the urban and peri-urban towns of Kitwe and Kalulushi respectively.

### 3.4 STUDY SAMPLE

A sample size of 183 respondents was drawn whose composition was 137 pupils, 37 teachers and nine administrators. Following the population of each school, the first and second schools contributed 45 pupils, twelve teachers and three administrators as respondents, while the third school contributed: 47 pupils, thirteen teachers and three administrators as respondents. The Head teachers, Deputy Head teachers and Heads of Department are here-in referred to as administrators.

## **3.4.1 Pupils**

Since the pupils earmarked for this study were from three different grades (Grades 10, 11, and 12) of the high schools selected, the researcher ensured that an appropriate proportion from each grade was selected in order to have a balanced representative

sample. The simple random sampling technique was used to do that. For example, where there were eight grade ten classes at least two pupils would be selected randomly from each class through casting a dice of heads and tails following class registers obtained from class teachers. The 'heads' were preferred. The pupils (heads) who remained up to the end of the contest were the selected respondents to represent the rest. The 137 pupils were picked in that way, that is, about sixteen from grade 10, sixteen from grade 11 and fifteen from grade 12 from each school. This was repeated at every school. The method ensured that each pupil in the schools (grades) stood a chance of being part of the study sample.

### 3.4.2 Teachers

It was felt that the number of teachers was too big for all to be part of the study sample. So, it was decided to select a representative group from each school using the simple random sampling system. A maximum of two teachers from each department were selected using a dice (heads and tails) – where 'heads' were preferred. The two teachers who remained in the contest became respondents. For instance, a school with seven departments provided a maximum of fourteen teachers as respondents for the study. It was found that doing so would ensure that each of the teachers in the departments (Mathematics, Languages, Natural sciences, Social Sciences, Business Studies, Design and Technology and, Creative and Performing Arts) would be given an equal chance of being selected for the study sample. In all, 37 teachers were selected and participated in the study.

## 3.4.3 Administrators

The administrative structure of schools was such that the Head teacher was the chief executive of the school who was followed by the Deputy Head (DH) teacher. Heads of department reported to the Deputy, especially on academic matters. The Head teacher, Deputy Head and one Head of Department (HOD) made the respondents as administrators from each school. While the Head teacher and Deputy Head were purposively selected for the study, the HODs were picked using the simple random sampling method of casting a dice (heads and tails). In this way, out of the seven HODs at each each, the researcher came up with one from each school as a representative of others. Thus, in total there were nine administrators in the study sample, that is, three Head teachers, three Deputy Heads and three HODs.

### 3.5 RESEARCH INSTRUMENTS

To collect data both qualitative and quantitative methods were used. Thus, questionnaires and interview schedules were employed. Semi-structured questionnaires were administered to teachers and pupils while administrators and a few teachers as well as a few pupils were subjected to in-depth interviews. For the purpose of triangulation, documentary analysis of books official records such as schemes, records of work and reports were referred to through the office of the Deputy Head teachers.

# 3.5.1 The Questionnaire

It was felt that the questionnaire was the most ideal method of collecting data from pupils and teachers in this research because first, the instrument could be administered to a considerably large number of respondents at the same time and enabled the survey to be done within the limited time given. Secondly, data collected through questionnaires was easily analysed as all respondents were asked the same questions and the themes were easily developed. Thirdly, it was cheaper to print the questionnaires and administer them at once. The questionnaire used a Likert response format and an open ended response format. The respondents were free to give their views since questionnaires were mainly completed in the absence of the researcher. Confidentiality was assured as there was less interaction between the researcher and the respondents after administering questionnaires and no identity/personal information was sought. The researcher assured the participants that information collected was for the purpose of the research only. The target groups for the questionnaires were pupils and teachers.

## 3.5.2 The Interview Schedule

In order to offset the limitations of the questionnaire, semi-structured interviews were used to collect data qualitatively for this research. The researcher engaged a face-to-face interaction with the respondents. This mainly targeted the administrators of the schools, that is, the Head teachers, Deputy Head teachers and Heads of Department. The advantages in using interviews were that, firstly, the researcher got prompt feedback from administrators. Secondly, there was room for the researcher to alter or clarify the interview question(s) or item(s) through in-depth interviews. Thirdly, the researcher obtained more and clearer data from the respondents' non-verbal expressions and by making follow-up leads. With permission from the informants, all the responses were written down in order to have a record that enabled the researcher develop themes for

ease of analysis. Interview schedules strengthened the validity of the findings from the questionnaires.

### 3.6 DATA ANALYSIS

In this study, the data collected was analysed both manually and electronically. This study mainly employed both qualitative and quantitative approaches. Basic descriptive statistics such as frequencies and percentages were used in the analysis of quantitative data. Frequencies, percentages and some tables were generated electronically using the Statistical Package of Social Sciences (SPSS).

Qualitative data was thematically analysed using the themes and sub-themes that emerged from the data. Each item in the questionnaire constituted a theme under which all responses were recorded and consolidated. Similarly, views from interviewees were recorded under specific themes.

## 3.7 PILOT SURVEY

A Pilot Survey was conducted in Lusaka at Kamwala High School using a small total sample of thirty-two (32) respondents. The aim for this survey was three-fold: to test the validity of the research topic, to test the validity of the research objectives and questions, and to test the validity and reliability of the research instruments.

After the results, the topic was adjusted to include: Lessons for Administrators. And, the research instrument had some questions removed or added while the rest were confirmed as valid and reliable.

## **CHAPTER FOUR**

# 4.0 PRESENTATION OF FINDINGS AND DATA ANALYSIS

## 4.1 INTRODUCTION

This chapter presents the findings of the study. It is divided into seven sections. These sections include themes that mainly focussed on research objectives and research questions of the study. The general objective of the study was to investigate factors contributing to excess use of the lecture method of teaching among high school teachers in the Copperbelt Province of Zambia. The study solicited information from pupils, teachers and school administrators such as Heads of Department, Deputy Head teachers and Head teachers.

The study was motivated by a communiqué from the Permanent Secretary of the Ministry of Education encouraging teachers and lecturers to use participatory approaches (learner-centred methodologies) as opposed to teacher-centred approaches in teaching. This was a reaction from the Standards Officers' Performance Audit Report (2010).

Data was collected using questionnaires, structured interviews and in-depth interviews. The questionnaire used a Likert response format and an open ended response format. The Likert format was selected because of its ease of understanding to respondents with minimal familiarity with survey research. Respondents were requested to indicate whether they strongly agreed, agreed, disagreed or strongly disagreed with the statement posed in the questionnaire. Using this format the results were interpreted.

# 4.2 QUALIFICATIONS AND EXPERIENCE OF TEACHERS

The following table shows the qualifications of teachers:

Table 1: Qualifications of Teachers

Qualification	Number of teachers	Percentage
Bachelor of Arts with  Education	4	10.8
Diploma In Education	27	73.0
Certificate in Education	6	16.2

The study found that in the schools visited both teachers and administrators were professionally trained as teachers. The largest number of teachers 27 (73%) possessed the qualification of Diploma in Education while 6 (16.2%), had Teachers Certificates. It was also found that 4 (10.8%) of the staff had degrees in education.

Teachers were initially trained in teacher training institutions within Zambia. Figure 1 below gives details of the initial teacher training findings:

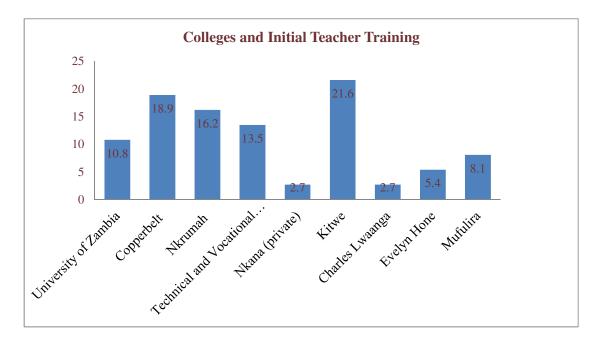


Figure 1: Initial Teacher Training

The largest proportion of the teachers 33 (89.2%) had their initial teacher training in basic school teacher training colleges as can be seen from Figure 1. The figure also shows that only 4 (10.8%) had their initial training for high school teaching at the University of Zambia (UNZA). Copperbelt, Nkrumah and Technical and Vocational Teachers Colleges of Education, mandated to train teachers for Upper Basic school level, trained a total of 18 (48.6%) teachers.

A large proportion of pupils 67 (48.9%) strongly affirmed that their teachers showed adequate knowledge of the subject matter. However, a total of 16 (11.7%) pupils indicated that their teachers' knowledge of content wavered and thus did not show

competence. This implies that though qualified to teach, some teachers were not knowledgeable of what they were to deliver to the learners as shown in Table 2 below.

Table 2: My teacher has adequate knowledge of his/her subject

Response	Frequency	Percentage
Strongly agree	67	48.9
Agree	54	39.4
Disagree	9	6.6
Strongly disagree	7	5.1
Total	137	100

The following table presents results of the study of teaching experience for administrators and teachers:

Table 3: Experience of Administrators and Teachers

Range (Years)	Administrators	Teachers
0-5	0	8 (21.6%)
6 – 10	0	12 (32.4%)
11 – 15	2 (22.3%)	10 (27.0%)
16 – 20	3 (33.3%)	3 (8.1%)
21 – 25	0	2 (5.4%)
26 – 30	4 (44.4%)	1 (2.7%)
31 and above	0	1 (2.7%)
TOTAL	9 (100%)	37 (100%)

Table 3 shows that administrators had work experience ranging from 11 to 30 years, that is, as subordinates and supervisors. Four of the administrators (44.4%) had taught for more than 25 years and two (22.3%) for less than 15 years.

The minimum experience for teachers was one year while the longest serving teacher had worked for 31 years. The majority of the teachers had work experience ranging between 6 to 15 years. From the table, we also learn that the majority of the teaching staff 30 (81.0%), had been teaching for less than 15 years while those who had taught for more than 16 years were only 7 (18.9%).

The effect of that experience on teaching, according to the face-to-face interview with teachers was that it helped them to enhance knowledge of content, sharpened teaching strategies and therefore improved lesson delivery and pupils passed examinations. While on one hand, most of the older teachers were well versed in content, they tended to be relaxed in planning for their lessons on the other.

# 4.3 METHODS OF TEACHING

# 4.3.1 Methods of teaching known by teachers

The figure below shows teaching methods known by teachers, that is, the methods of teaching they were exposed to especially during their initial teacher training:

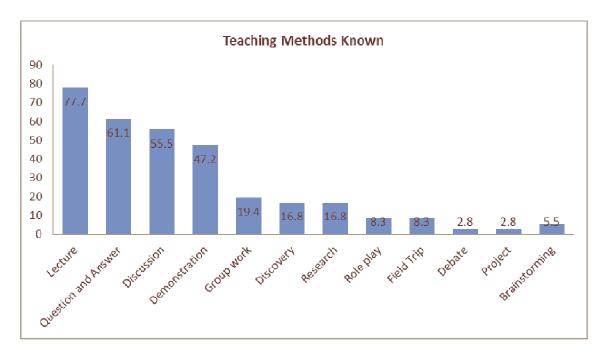


Figure 2: Teaching Methods Known to Teachers

Figure 2 shows that the most known method of teaching was the lecture (expository) method, 28 (77.7%) teachers were aware of it. Role play, field trip, debate, project and brainstorming methods were least known among teachers. Only 10 (27%) teachers expressed knowledge of these methods. Figure 3 below shows some methods as used by teachers.

## 4.3.2 Extent of use of Lecture Method

During interviews, all teachers stated the methods they frequently used in their lessons as shown in Figure 3 below:

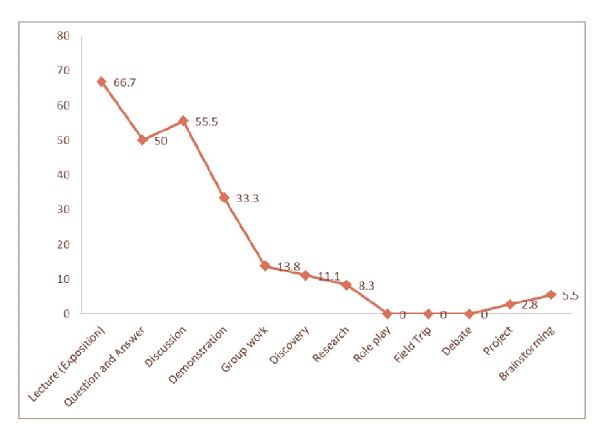


Figure 3: Extent of use of Lecture method by Teachers

Figure 3 shows that the largest proportion of teachers 24(66.7%) used the Lecture (expository) method of teaching more than any other method. The next popular method was Discussion where 20 (55.5%) teachers used it. The teaching methods that appeared unpopular among teachers were role play, field trips and debate where none of the teachers indicated having used them at all. During in-depth interviews with the school administrators (Heads of department) it was reported that most teachers were comfortable with the expository methods of teaching because they were considered as less demanding in terms of preparation on the part of the teacher.

This was confirmed by 73 (53.3%) pupils who strongly agreed that their teachers used explanations for most of the lessons as shown in Table 4 below:

Table 4: My teacher uses explanations mostly as she or he teaches

Response	Frequency	Percentage
Strongly agree	73	53.3
Agree	37	27.0
Disagree	15	10.9
Strongly disagree	11	8.0
No response	1	0.7
Total	137	100

Pupils further, stated that their teachers did not enjoy teaching without pupil involvement as supported by the information given in the table below:

Table 5: My teacher likes presenting lessons without involving pupils

Response	Frequency	Percentage
Strongly agree	27	19.7
Agree	12	8.8
Disagree	53	38.7
Strongly disagree	45	32.8
Total	137	100

Table 5 shows that 53 (38.7%) of pupils disagreed that teachers enjoyed teaching their lessons without involving pupils. However, 27 (19.7%) strongly agreed and another 12 (8.8%) agreed that their teachers did like presenting lessons without involving pupils.

Choosing a method for a particular lesson is often done during the time for preparing to teach. In the table below pupils acknowledge that their teachers adequately prepared for lessons.

Table 6: My teacher adequately prepares for lessons

Response	Frequency	Percentage
Strongly agree	61	44.5
Agree	46	33.6
Disagree	16	11.7
Strongly disagree	12	8.8
No response	2	1.5
Total	137	100

Table 6 shows that the majority of the pupils, 61 (44.5%) and another 46 (33.6%) observed that their teachers prepared for the lessons they delivered. However, a combined total of 28 (20.5%) disagreed that their teachers adequately prepared for their lessons. During in-depth interviews with Heads of Department, it was reported that some teachers prepared their lessons adequately while others did very little.

The table below shows the reasons given for the choice of method of teaching by teachers.

Table 7: Reasons for Choice of Method by Teachers

Method	Reason for the choosing the method
Lecture	To introduce theorems, concepts, etc so as to provide pre-requisite knowledge to build on. To explain thoroughly
	<ul> <li>For overcrowded classes</li> </ul>
	<ul> <li>Where teaching/learning materials lacked or were</li> </ul>
	inadequate
Discussion/Group work	To enable pupils participate fully in class activities
Individual attention	To assist slow learners
Question and answer (Q+A)	To evaluate learning
Demonstration	To demonstrate an activity
Lecture/demonstration/ Q+A	To capture learners attention

Table 7 shows that a number of factors were taken into account before teachers could settle for a teaching technique. Some teachers chose a method of teaching so as to enhance full pupil participation in class activities. Others thought that a method was

determined by the fact that the teacher needed to introduce theorems, concepts and terms that were vital for the firm foundation of a lesson and other lessons yet to be taught.

Significant were also considerations of the factors such as lack/inadequacy of teaching/learning materials, to assist slow learners, to evaluate learning, to demonstrate an activity, and to enable the teacher manage overcrowded classes.

# 4.3.3 Learner-centred methodologies

The table below shows the number of times teachers preferred to use learner-centred methodologies in their classroom activities.

Table 8: Frequency of use of learner-centred Methods

Response	Frequency	Percentage
Never	0	0
Rarely	2	5.4
Sometimes	14	37.8
Always	21	56.7
Total	37	100

Quite a large number of teachers 21 (56.7%) claimed that they always used learner-centred methods during their lessons. Further, another 14 (37.8%), stated that from time to time they used the participative methods in class. None of the teachers indicated that they did not use the learner-centred methodologies at all.

Pupils submitted the following information on the use of some learner-centred methods by their teachers:

Table 9: My teacher uses group work mostly as s/he teaches

Response	Frequency	Percentage
Strongly agree	17	12.4
Agree	35	25.5
Disagree	59	43.1
Strongly disagree	22	16.1
No response	4	2.9
Total	137	100

Table 9 shows that 59 (43.1%) pupils did not agree and another 42 (30.7%) strongly disagreed that their teachers used group work as they taught lessons. Nonetheless, 52 (37.9%) observed that their teachers used group work method.

Table 10: My teacher uses role play mostly as s/he teaches

Response	Frequency	Percentage
Strongly agree	11	8.0
Agree	32	23.4
Disagree	20	14.6
Strongly disagree	71	51.8
No response	3	2.2
Total	137	100

From Table 10 above 71 (51.8%) pupils strongly disagreed that teachers mostly used role play as they taught compared to 11 (8.0%) who strongly agreed. Therefore, there were situations in which teachers used role play though very rarely.

Table 11: My teacher uses discussions mostly as s/he teaches.

Response	Frequency	Percentage
Strongly agree	28	20.4
Agree	46	33.6
Disagree	43	31.4
Strongly disagree	20	14.6
Total	137	100

Table 11 shows that 46 (33.6%) of pupils agreed and another 28 (20.4%) strongly agreed that teachers mostly used discussions during their lessons. It is also noted that 31.4% and another 14.6% of the pupils disagreed and strongly disagreed respectively that teachers used class discussions. This means that the majority of pupils were in agreement with the assertion.

One prominent feature of learner-centred technique is the promotion of creativity and free thinking among pupils. The table below gives information on whether teachers encouraged creativity and free thinking in class

Table 12: My teacher encourages creativity and free thinking in class

Response	Frequency	Percentage
Strongly agree	41	29.9
Agree	61	44.5
Disagree	16	11.7
Strongly disagree	19	13.9
Total	137	100

Table 12 shows that cumulatively 35 (25.5%) pupils disagreed and strongly disagreed that creativity and free thinking were encouraged. This was despite a greater number totalling 102 (74.4%) of pupils who agreed that teachers did so during lessons.

Table 13: Female teachers are fond of using participative (learner-centred) methods

Response	Frequency	Percentage
Strongly agree	9	24.3
Agree	18	48.6
Disagree	9	24.3
Strongly disagree	1	2.7
Total	37	100

The study, according to Table 13, revealed that 18 (48.6%) teachers out of the 37, agreed and another 9 (24.3%) strongly agreed that female teachers were fond of using the learner-centred techniques when teaching. During the in-depth discussion with teachers, it was said that female teachers wanted to add the 'motherly touch' to teaching and that was why they liked to spend some time with pupils individually or severally in a 'child-play' situation. However, a minority 10 (27%) of the teachers did not endorse that observation.

On whether those teachers who used learner-centred methodologies were time wasters, teachers gave the following opinion:

Table 14: Teachers who use Learner-centred methods are "time wasters".

Response	Frequency	Percentage
Strongly agree	1	2.7
Agree	3	8.1
Disagree	22	59.5
Strongly disagree	11	29.7
Total	37	100

Table 14 shows that a greater majority of teachers, that is 33 (89.2%), disagreed that the use of learner-centred methods was a waste of time. Only 4 (10.8%) of the teachers felt the use of the learner centred methodologies was not worthy it as it was not easy to attain lesson objectives set out by the teacher as a facilitator within the time for a lesson.

The study further wanted to find out on whether teachers who used learner-centred methods were disliked by their fellow teachers. The results obtained are as shown in the table below.

Table 15: Teachers who use Learner-centred methods are dislike by fellow teachers

Response	Frequency	Percentage
Strongly agree	2	5.4
Agree	4	10.8
Disagree	17	45.9
Strongly disagree	12	32.4
No response	2	5.4
Total	37	100

Table 15 shows that 17 (45.9%) of the teachers, disagreed with the assertion that there was such indifference among teachers. They explained in detail that at the point of delivery the method a teacher used in class was none of their concern. During their submission, administrators also added that what mattered most was the achievement of the goal(s) of the lesson and pupils' learning. It was also found, however, that 2 (5.4%) strongly agreed while another 2 (5.4%) of the teachers did not respond in any way.

A question was asked about participatory methodologies in order to seek information on whether such approaches as discussion, role play and project made teachers not to finish their syllabi in time. The responses were as shown in Table 16 below:

Table 16: Teachers who use learner-centred methods do not finish covering the syllabus on time

Response	Frequency	Percentage
Strongly agree	3	8.1
Agree	11	29.7
Disagree	17	45.9
Strongly disagree	6	16.2
Total	37	100

The study, as shown in Table 16, revealed that 17 (45.9%) disagreed that teachers did not finish their syllabi on time as a result of using learner-centred techniques. Another 6 (16.2%) strongly disagreed with that assertion while a cumulative total of 14 (37.8%) assented to the view that learner-centred approaches adversely affected coverage of the syllabi on time.

During the in-depth interview on the methodologies and syllabi coverage, administrators pointed out that among many factors, it was 'industrial and human factors' such as industrial harmony and turnover of staff which impacted negatively or positively on the teachers' completion of the syllabi during each academic year. Some teachers were lazy. On laziness this was what pupils said:

Table 17: Pupils regard teachers who use learner-centred methods as lazy

Response	Frequency	Percentage
Strongly agree	2	5.4
Agree	13	35.1
Disagree	17	45.9
Strongly disagree	3	8.1
No response	2	5.4
Total	37	100

Responding to the statement that pupils regard teachers who use learner-centred methods as lazy, 17 (45.9%) of the teachers disagreed while 13 (35.1%) agreed. Another 8.1% disagreed while 5.4% agreed. Two teachers did not go for either.

An in-depth discussion with pupils revealed that some teachers were naturally lazy and poorly applied themselves.

Another factor investigated was class size and its effect on learner-centred methodologies. From Table 18 we learn that of the total teacher sample, 12 (32.4%) agreed and another 4 (10.8%) strongly agreed that teachers were discouraged from using learner-centred methods due to large class sizes. However, 10 (27.0%) disagreed and another 10 (27.0%) strongly disagreed that class size had a negative bearing on the use of the participatory methods of teaching and learning. One teacher did not respond

Table 18: Teachers are discouraged from using Learner-centred methods due to class size

Response	Frequency	Percentage
Strongly agree	4	10.8
Agree	12	32.4
Disagree	10	27.0
Strongly disagree	10	27.0
No response	1	2.7
Total	34	100

Both administrators and pupils were aware of the problem of overcrowded classes. Over 59% of the pupils observed that their teachers complained about overcrowded classes. However, pupils felt that the negative attitude towards class size could be reversed by using debates, class discussions, research and out-of-class group work.

When interviewed over class size, administrators suggested that provision of facilities such as libraries, computers with internet facilities and reading/study facilities would help alleviate the problem. They also emphasised the need for teachers' commitment and dedication to duty.

This is what pupils reported about their teachers' feelings on class size:

Table 19: My teacher complains of our class having too many pupils

Response	Frequency	Percentage
Strongly agree	45	32.8
Agree	37	27.0
Disagree	34	24.8
Strongly disagree	17	12.4
No response	4	2.9
Total	137	100

Table 19 shows that 45 (32.8%) of pupils, took note of their teachers' complaint over their classes having too many pupils. This confirms the findings from the teachers' perception on the issue. It is also seen that a few (21) pupils (37.2%) took note of the fact that some teachers never expressed discomfort over large class sizes.

Further, interaction between the teacher and his/her pupils, was another feature of the learner-centred methodologies that were studied. Teachers pointed out that it was not impossible to attend to individual pupils' problems in a crowded class. Table 20 below shows that the majority 78 (57%) of the pupils acknowledge that teachers interacted with their pupils while in class but 56 (40.9%) did not agree with that assertion.

Table 20: My teacher encourages pupil-teacher interaction in class

Response	Frequency	Percentage
Strongly agree	39	28.5
Agree	39	28.5
Disagree	33	24.1
Strongly disagree	23	16.8
No response	3	2.2
Total	137	100

When asked to substantiate further on teacher-pupil relationship, pupils felt that cordial and warm teacher-pupil relationships that took into account their interests went a long

way in providing a favourable classroom learning environment. Here is what pupils said about their being encouraged to fully participate in class activities:

Table 21: My teacher rewards pupils for active participation in class activities

Response	Frequency	Percentage
Strongly agree	21	15.3
Agree	30	21.9
Disagree	43	31.4
Strongly disagree	43	31.4
Total	137	100

Over 60% of the pupils reported that teachers did not reward pupils for active participation in classroom activities. During an in-depth discussion with administrators, it was said that, in addition to encouraging pupil and teacher interaction in class, teachers would have done better to reward those who effectively took part in discussions, debates or projects to appreciate their effort.

The study also undertook to investigate among teachers what administrators and parents felt about giving pupils work that required pupils to research on their own. The results were as shown in the table below:

Table 22: Parents and administrators do not like teachers who ask pupils to search for information on their own

Response	Frequency	Percentage
Strongly agree	0	0.0
Agree	10	27.0
Disagree	13	35.1
Strongly disagree	13	35.1
No response	1	2.7
Total	37	100

Table 22 revealed that 26 (70.2%) of teachers reported that parents and administrators favoured the idea for teachers to be giving research and/or homework to pupils.

As coordinators of academic affairs in schools, Deputy Head teachers interviewed reported that the issue of homework had been a major agenda item for almost all Parents

and Teachers Association (PTA) meetings in the past. During such meetings parents strongly demanded that teachers give pupils some work to do while at home, after school hours, over the weekends or during the holidays.

Contrary to the view that most pupils disliked research or homework, the study according to Table 23 below revealed an outright majority of 74 (53.3%) with an additional 47 (34.3%) of the pupils being in favour of being given work that would require them to look for information, compared to a less significant 16 (11.7%) who agreed that they did not like being given work which required them to do research (home work).

Table 23: I don't like being given work by my teacher which requires me to do research

Response	Frequency	Percentage
Strongly agree	3	2.2
Agree	13	9.5
Disagree	47	34.3
Strongly disagree	74	54.0
Total	137	100

Another aspect considered was teaching/learning materials and equipment. Administrators said teachers had complained of lack or inadequacy of the teaching/learning materials/equipment and that this had negatively affected the teaching/learning environment in class. The table below shows the results of whether it was difficult to implement learner-centred methods due to lack or inadequacy of resources (materials or equipment) in the school or department.

Table 24: Learner-centred methods are difficult to implement due to inadequacy/lack of learning/teaching materials or equipment.

Response	Frequency	Percentage
Strongly agree	11	29.7
Agree	16	43.2
Disagree	4	10.8
Strongly disagree	6	16.2
Total	37	100

From the table above the study revealed that 27 (72.9%) of teachers responded affirmatively to the fact that learner-centred methods were difficult to implement when there was inadequate or lack of learning/teaching materials or equipment. Only 10 (27%) said it was not difficult.

When asked whether teachers used teaching/learning materials for most of the lessons, pupils responded as shown in Table 40 below:

Table 25: My teacher uses teaching and learning aids for almost all lessons

Response	Frequency	Percentage
Strongly agree	23	16.8
Agree	65	47.4
Disagree	43	31.4
Strongly disagree	6	4.4
Total	137	100

Pupils acknowledged the effort teachers made in using teaching and learning aids for most of the lessons. Over 65 (47.4%) of the pupils observed their teachers use some teaching and learning materials for their lessons compared to a total of 49 (35.8%) who denied that.

On the other hand, during interviews administrators stated time constraints, class size and the wide subject syllabi as the major challenges faced by teachers when using the learner-centred strategies. Pupils were divided into almost two equal groups in their perception of the time their teachers spent to correct their work in class as can be seen from the table below:

Table 26: My teacher spends time correcting pupils' work while in class

Response	Frequency	Percentage
Strongly agree	28	20.4
Agree	44	32.1
Disagree	40	29.2
Strongly disagree	25	18.2
Total	137	100

Table 26 shows that 72 (52.5%) pupils stated that teachers spared time correcting pupils work while in class while 65 (47.4%) disagreed. The results could have been influenced by subjects such as Mathematics. In such subjects teachers were required to correct pupils written exercises more often than other subjects such as History or Religious Education especially where the lecture method was used.

Further, administrators pointed out that the abrupt curriculum changes and the wide syllabi had posed some serious challenges for teachers using the learner-centred teaching methods. Teachers put forward the following challenges as some of the factors affecting the use of learner-centred methodologies in the classroom:

- Inability to cover syllabi (Time consuming)
- Poor calibre and background of pupils
- Large class size
- Lack of or inadequate teaching-learning materials
- Pupils lack of research skills or pupil laziness
- Teachers' fear of being challenged by pupils

Following the order of the list, according to teachers, the most prevalent challenge teachers faced in using learner-centred methods was the inability to cover the syllabi in time. This did not give them ample time to revise and prepare for examinations or tests. This challenge was followed by poor calibre or background of pupils, large class sizes, lack of or inadequate teaching-learning materials/equipment in that order. The last challenge, though quite significant, was the teachers' fear of being challenged by pupils.

### **4.3.4** Teacher-centred Methods

The researcher wanted to find out if teachers preferred to use teacher-centred methodologies because they were able to cover the syllabus quickly. Teachers' responses were as shown in Table 27 below:

Table 27: Teacher-centred methods are preferred for quick syllabus coverage

Response	Frequency	Percentage
Strongly agree	5	13.5
Agree	14	37.8
Disagree	12	32.4
Strongly disagree	6	16.2
Total	37	100

Table 27 shows that the cumulative total of the teachers who agreed and strongly agreed to the claim that 'Teachers who use teacher-centred methods are able to cover the syllabus on time' was 19 (51.3%), thereby having a simple majority over their counterparts 18 (48.6%) who disagreed.

Another perception for the teacher-centred approach was that pupils enjoyed being given information quickly by their teachers. Table 28 shows the results of the study.

Table 28: Pupils enjoy lessons where information is quickly given by teachers

Response	Frequency	Percentage
Strongly agree	4	10.8
Agree	19	51.4
Disagree	11	29.7
Strongly disagree	3	8.1
Total	37	100

As many as 19 (51.4%) and another 4 (10.8%) of the teachers agreed and strongly agreed that pupils enjoyed lessons where information was quickly given to them by teachers during the presentation of lessons as compared to 11 (29.7%) who disagreed.

On whether it was true that teachers opted for question and answer method during teacher-centred lessons, pupils reported as shown in Table 29 below:

Table 29: My teacher uses question and answer mostly as s/he teaches

Response	Frequency	Percentage
Strongly agree	26	19.0
Agree	67	48.9
Disagree	28	20.4
Strongly disagree	16	11.7
Total	137	100

The investigation proved that 67 (48.9%) of the pupils agreed that teachers used question and answer method most of the time during lessons. Pupils said after 'talking for some time' teachers would pause and ask pupils a number of questions mainly to find out if they had understood what was taught.

During interviews, administrators stated that usually pupils wished they could be taught by teachers who were knowledgeable, parent-like and psycho-social counsellors. This seemed to be more of the reason why pupils (Table 20) agreed that teachers encouraged pupil and teacher interaction in class (despite the overcrowding).

The following were the reasons cited by teachers for preferring to use teacher-centred methods:

- To explain new and difficult terms and concepts
- To drill pupils for tests and examinations
- To cover the syllabus quickly
- Due to large class size
- To introduce a topic
- To control the class and learning pace
- Due to low calibre of pupils in terms of subject knowledge and self expression.
- Due to inadequate teaching/ learning materials

The study has already brought out the fact that teachers preferred the use of the lecture method because they felt that they had to make pupils understand. Further as can be seen from the list above, other reasons put forward by teachers included to drill pupils for tests and examinations, to cover the syllabus quickly, to teach a large class and to introduce a topic. In an in-depth interview, pupils also stated that teachers were used to doing so especially when new or unknown information was being introduced to pupils in order to make pupils assimilate and appreciate the information.

Pupils also felt that teachers resorted to teacher-centred techniques because they did not spare time to prepare for their lessons. This view was supported by administrators who advanced the reason that teacher unpreparedness was the cause of most of the mediocrity in class. On drilling pupils for the purpose of passing examinations or tests, teachers responded as follows:

Table 30: Teacher-centred methods are often used to drill pupils to pass examinations.

Response	Frequency	Percentage
Strongly agree	2	5.4
Agree	19	51.4
Disagree	10	27.0
Strongly disagree	5	13.5
No response	1	2.7
Total	37	100

In the study, according to Table 30, 19 (51.4%) of teachers agreed that they used teacher-centred methods of teaching in order to adequately prepare pupils for examinations and tests. However, quite a significant number 15 (40.5%) of teachers denied that notion. When interviewed they argued that the teacher-centred techniques were used mainly to impart and concretise understanding of knowledge in learners.

### 4.4 CLASS MANAGEMENT

During in-depth interviews, pupils revealed that some teachers gave unexplained notes to pupils while others 'told stories' mainly to disguise their poor preparation for their lessons and lack of adequate subject knowledge. They claimed that somehow that took place because there was nobody watching over the teachers while in class. They felt that there was need to supervise teachers while teaching. Teachers, on the other hand, were

asked whether they required supervisors for them to implement learner-centred methods. Table 31 shows responses from teachers:

Table 31: Teachers require close supervision to implement learner-centred methods

Response	Frequency	Percentage
Strongly agree	5	13.5
Agree	13	35.1
Disagree	11	29.7
Strongly disagree	8	21.6
Total	37	100

Responding to the question that "teachers need close supervision in order to implement learner-centred methodologies in their lessons", teachers were almost split into two equal groups: 18 (48.6%) were for the suggestion while 19 (52.8%) were against. Those who were against argued that a trained (fully baked) teacher ought not to have a close watch over the methodologies employed in class but rather ought to be free to facilitate the lesson according to their preparation, experience and prevailing situation. During a profound interview, administrators proposed the intensification of the school based Continuous Professional Development (CPD) programme as the best way out. They believed that as professionals, teachers had most of the solutions to their own classroom challenges.

But do pupils need restriction on their academic freedom? This was what teachers reported on this view:

Table32: Pupils academic freedom needs strict control

Response	Frequency	Percentage
Strongly agree	3	8.1
Agree	21	56.8
Disagree	9	24.3
Strongly disagree	3	8.1
No response	1	2.7
Total	37	100

In as far as that aspect of class management was concerned, over 21 (56.8%) of the teachers (as shown in Table 32) felt pupils' academic freedom in class needed strict control while a cumulative total of 12 (32.4%) disagreed. In an interview with administrators, they reported that some teachers suppressed pupil participation and activity because teachers felt challenged by the above average (intelligent) pupils especially those pupils who asked probing questions that exposed the teachers' lack of preparation and deficiency in subject matter. Therefore, most teachers provided very limited academic freedom to pupils in order to attain that desired 'goal'.

According to Table 33 below, from the pupils' point of view teachers exercised firm control over them while in class, as 71 (51.8%) of them had observed that teachers did not tolerate much academic freedom in class.

Table33: My teacher promotes pupil academic freedom in class.

Response	Frequency	Percentage
Strongly agree	29	21.2
Agree	42	30.7
Disagree	37	27.0
Strongly disagree	27	19.7
No response	2	1.5
Total	137	100

However, a considerable combined number of 64 (46.7%) pupils thought teachers gave them freedom in academic endeavours.

As a result of that approach pupils stated that there had been poor teacher-pupil relationship since teachers had firm control over them as could be seen from the table below:

Table 34: My teacher has firm control on pupils while teaching

Response	Frequency	Percentage
Strongly agree	32	23.4
Agree	58	42.3
Disagree	43	31.4
Strongly disagree	4	2.9
Total	137	100

Table 34 shows that 58 (42.3%) and 32 (23.4%) pupils agreed and strongly agreed respectively that teachers exercised firm control on them while in class as compared to the minority 47 (33.3%) pupils who felt that some teachers were not strict with them while teaching. When probed further pupils reported that some teachers resorted to the use of vulgar language to intimidate pupils. Hence, pupils' participation in class activities had been restricted to such an extent that even the squeaking of a desk became a serious punishable offence.

Pupils, nonetheless, reported that teachers tolerated them so much even when academically challenged by pupils as was seen from the results in the following table: *Table 35: My teacher gets upset when academically challenged by a pupil.* 

Response	Frequency	Percentage
Strongly agree	14	10.2
Agree	32	23.4
Disagree	43	31.4
Strongly disagree	48	35.0
Total	137	100

From Table 35 above, an outstanding 91 (67.9%) pupils denied that teachers were unhappy when academically challenged by pupils while 46 (33.6%) agreed that teachers got upset when academically challenged by pupils.

During in-depth interviews, pupils were asked to describe what constituted good teaching. The following were given as definitions of good teaching from the pupils' point of view:

- Exposition that ended with question and answer, testing, exercises, assignments or research.
- Teaching in which pupils were fully involved where the teacher-pupil relationship was cordial
- Use of group work, discussion, debate and research
- Teaching where pupils were encouraged to work hard all the time.
- Teacher being passionate about teaching, confident and simple in approach.
- Teacher ensuring use of a variety of teaching techniques in a lesson.

It is evident from the above statements that pupils look forward to lessons where they would fully take part in the activities and where expository methods ended with activities. They suggested that even where exposition was involved the lesson needed to be modified to include question and answer, assignments and research.

In fact when asked to 'state the method(s) of teaching that would make pupils learn most' the majority 50 (35.5%) of the pupils insisted that the lecture method coupled with question and answer technique was the foremost as shown in the table below:

Table 36: Methods that would make pupils learn most

Method	Frequency	Percentage
Project	8	5.8
Group work	17	12.4
Lecturer with question and answer	50	36.5
Discussion	12	8.8
Research	18	13.1
Role play	19	13.9
Debate	7	5.1
Use of teaching/learning aids	6	4.4
TOTAL	137	100

Pupils felt that project, debate and use of teaching/learning materials would also make them learn most.

On the other hand, teachers were asked to define what bad teaching was. They defined bad teaching as follows:

- Teaching without involving learners
- Teaching without preparation and passion for the profession
- Strict use of lecture method only
- Drilling pupils for examinations only
- Teacher lacking subject knowledge but forcing oneself to teach
- Being vulgar and inconsiderate

The information above was arranged in the order of the most frequent response. The information therefore, shows that the most common definition for bad teaching, as put forward by teachers was "teaching without involving pupils" followed by teachers going to class without preparation. Teachers also felt that being vulgar and inconsiderate was bad teaching. None of the respondents condemned learner-/teacher-centred methodologies as bad teaching.

But, what made teachers feel that they had successfully taught a lesson of the day? Table 37 gives the responses.

Table 37: What makes teachers feel 'Today I have successfully taught my lesson'?

Opinion	Frequency	Percentage		
When results for class exercises are good	22	59.5		
When lesson objectives are achieved	5	13.5		
When responses are good during Question and Answer	21	56.8		

Table 37 above shows that some teachers gave more than one opinion. From the information, it is clear that 22 (59.5%) teachers felt they had successfully taught a lesson when pupils performed well in class exercises. These exercises were given immediately

after a lesson or after a topic had been taught and, by giving the test/exercise, teachers evaluated themselves as well as pupils – the results would reveal the extent of teaching and learning. Another way was where teachers did impromptu evaluation by applying the question and answer technique (56.8%) stated that a good indicator for teaching was shown by good responses during oral questions. Five (13.5%) felt that a lesson was successfully taught when the lesson objectives were achieved.

# 4.5 INFLUENCE OF COLLEGE/UNIVERSITY LECTURERS AND MISSIONARY TEACHERS ON TEACHING METHODOLOGIES

# 4.5.1 University/college lecturers and teaching methodologies

The study investigated whether lecturers of colleges and universities of education, who trained teachers in methodologies, had influenced classroom practices of serving teachers especially in as far as teaching methods was concerned.

Table 38: College/University lecturers' methods of teaching have influenced teachers' methodologies of teaching in high schools

Response	Frequency	Percentage
Strongly agree	5	13.5
Agree	16	43.2
Disagree	13	35.1
Strongly disagree	3	8.1
Total	37	100

For long it has been said that 'the best cook is your mother'. Even in the teaching fraternity, most teachers have held the view that their lecturers gave them the best foundation for their career development. In this study, this has come true.

Table 38 shows that 21 (56.7%) of the teachers blamed their non-implementation of the learner-centred methods of teaching in high school classes on the influence from their college or university lecturers' methods of presenting lessons. On the other hand 16 (43.2%) disagreed with the statement. During interviews with administrators, it was explained that: "since lecturers taught student teachers using the lecture method even when they were teaching how to use group work, research or role play, their product (the graduate teachers) were unable to use these methods. Why? Because they never saw their

lecturers use (practice) the learner-centred methods practically. So, most of them were "copy cats."

## 4.5.2 Missionary teachers and teaching methods

Further, the study sought to find out if missionary teachers of the pre-colonial and colonial days influenced the teaching methods for teachers of nowadays. The following table gives the results of the study:

Table 39: Methods of teaching that Missionaries used have had influence on methods of teaching for a long time

Response	Frequency	Percentage			
Strongly agree	5	13.5			
Agree	24	64.9			
Disagree	4	10.8			
Strongly disagree	2	5.4			
No response	2	5.4			
Total	37	100			

Most teachers 24 (64.9%) agreed that there was influence from the methods of teaching that missionaries used on the modern teachers in high schools. On the other hand, 6 (16.2%) disagreed with the statement while 2 (5.4%) never responded.

## 4.6 TEACHING AND/OR LEARNING ENVIRONMENT

## 4.6.1 Teaching/learning facilities

The availability or non-availability of teaching/learning facilities has always been a concern especially in as far as teaching and learning are concerned. For the purpose of this study, the following facilities were investigated and their condition was described as shown in Figure 4 below:

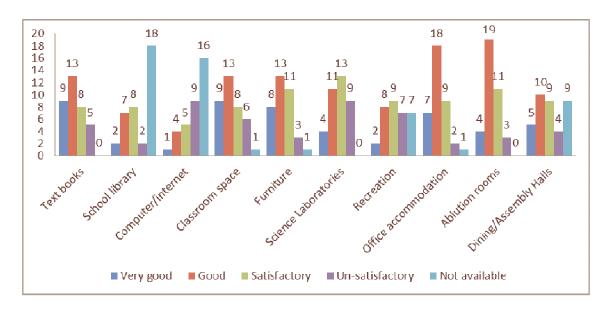


Figure 4: Condition of Teaching/Learning facilities

As can be seen from (Figure 4), the visited schools generally had good facilities meant for teaching and learning except for the school libraries and computer facilities which were either not available or unsatisfactory. In as far as academic activities were concerned, the school library and computer facilities were cornerstones for school life. A physical visit to the centres revealed that the facilities were either not available or indeed very unsatisfactorily equipped with old computers or books. This meant that research and private studies were seriously adversely affected.

Administrators acknowledged that such facilities were very vital for a successful school life. Lack or inadequacy of the facilities seriously affected the choice of methodologies and the effectiveness of the delivery of lessons since strategies and teaching/learning facilities highly complemented each other.

## 4.6.2 Classroom practices

In this study by practices is meant 'what teachers performed while in the classroom'. Some of the practices listed in the table below, of course, were performed outside the classroom. However, they impacted a lot on the classroom activities, for example, knowledge of the subject matter and lesson planning. These have a bearing on what happens in class.

The revelations of the study as given by teachers and administrators are as shown in Table below:

Table 40: Rating of Classroom Practices by Teachers and Administrators.

Classroom	Teachers (37)			Administrators (9)				Com		
Practice	a	b	c	d	a	b	С	d	ment	
Lesson	20	14	3	0	1	7	1	0	Good	
preparation	(54%)	(38%)	(8%)	U	(11%)	(78%)	(11%)	U		
Knowledge of	23	9	1	0	0	1	6	2	0	Exce
subject	(62%)	(24%)	(3%)	U	(11%)	(67%)	(22%)	U	llent	
Lesson	18	16	3	0	2	2	5	0	Good	
organisation	(49%)	(43%)	(8%)	U	(22%)	(22%)	(56%)	U	Good	
Lesson	14	21	2	0	0	7	2	0	Good	
presentation	(38%)	(57%)	(5%0	U		(78%)	(22%)	U	Good	
Helpful to	11	21	5	0	2	4	3	0	Good	
pupils	(30%)	(57%)	(14%)	U	(22%)	(44%)	(33%)	U	Good	
Time spent on	12	20	5	0	3	5	1	0	Good	
Class work	(32%)	(54%)	(14%)	U	(33%)	(56%)	(11%)	U	Good	
Use of teaching	5	17	15	0	1	3	4	1	Fair	
aids	(14%)	(46%)	(42%)	U	(11%)	(33%)	(44%)	(11%)	ган	
Encouraging	16	19	1	0	1	2	6	0	Good	
pupils to think	(43%)	(51%)	(3%)		(11%)	(22%)	(67%)	U	Good	
Teachers	10	21	5	1	1	7	1	0	Good	
Flexibility	(27%)	(57%)	(14%)	(3%)	(11%)	(78%)	(11%)	U	Good	
Individual	17	15	5		1	6	2			
attention to	(46%)	(42%)	(14%)	0	(11%)	(67%)	(22%)	0	Good	
pupils		, í	, í		` ′	<u> </u>	` ′			
Pupil academic	4	21	10	1	2	5	2	0	Good	
freedom	(11%)	(57%)	(27%)	(3%)	(22%)	(56%)	(22%)	U	Good	
Class control	11	18	7	1	2	6	1	0	Good	
	(30%)	(49%)	(19%)	(3%)	(22%)	(67%)	(11%)	U	Good	
Punishment	1	11	17	6	2	3	4	0	Fair	
	(3%)	(30%)	(46%)	(16%)	(22%)	(33%)	(44%)	U	ran	
Rewards	4	18	14	1	0	4	3	2	Good	
	(11%)	(49%)	(38%)	(3%)		(44%)	(33%)	(22%)	Jood	
Open to other	12	18	5	2	2	4	3	0	Good	
view points	(32%)	(49%)	(14%)	(5%)	(22%)	(44%)	(33%)	U	Good	

Key:  $\mathbf{a} = \text{excellent}$   $\mathbf{b} = \text{good}$   $\mathbf{c} = \text{fair}$   $\mathbf{d} = \text{unsatisfactory}$ 

Table 40 shows that 23 (62%) of teachers rated themselves as being excellent in the knowledge of the subject matter outweighing the opinion of 5 administrators who stated that it was good although in most practices teachers rated themselves highly. It was however, stated that teachers were fair in the use of teaching/learning aids and execution of punishment.

## 4.7 RE-TRAINING TEACHERS IN TEACHING METHODOLOGIES

All qualified teachers were trained in teaching methods during their initial teacher training. But when asked to state short term courses in teaching methods that they had

attended recently, all of them said they were attending the Continuous Professional Development (CPD) programme currently running in schools.

The programme was described as one where teachers discussed professional and academic challenges with a view to perfecting their practice in the classroom. Under the CPD programme was the Demonstrate, Observe, Discuss and Implement (DODI) and the Subject Meeting at the Resource Centre (SMARC) teacher groups. Both involved groups of subject teachers from one department or indeed the zonal schools discussing the strengths and weaknesses of lesson delivery as observed during their own individual peer teachers' lessons.

No teacher had gone for long term training in teaching methods except for one teacher who had gone for training for more than two years in methodologies of teaching pupils with special education needs.

#### **CHAPTER FIVE**

#### 5.0 DISCUSSION OF FINDINGS

#### 5.1 INTRODUCTION

The study tried to answer the question "What are the factors contributing to the excess use of the lecture method of teaching among high school teachers?" Specifically, the foregoing chapter provided data from the study to answer four questions:

- What are the teaching methods high school teachers are exposed to while in colleges of education or university?
- How much is the Lecture method excessively used?
- What factors contribute to excess use of the lecture method by high school teachers?
- How have administrators encouraged high school teachers to use a variety of teaching methods?

In this chapter, the results of the study collected are interpreted further and discussed according to the objectives of the study as outlined above. Before that we will start by discussing the general characteristics of the study sample.

# 5.2 GENERAL CHARACTERISTICS OF THE STUDY SAMPLE

Administrators, as was seen from the study sample, were generally professionally mature teachers with a considerable amount of experience both as teachers and supervisors. This experience made them confident enough to guide and supervise teachers under them, for instance, Heads of Department guided and supervised specialist subject teachers under them and in turn reported to the Deputy Head who coordinated academic affairs in the school. This implied that in addition to being well experienced, they were professionally well qualified as teachers.

As for teachers, most of them were between young and middle-aged professionals. From the study there was overwhelming evidence that most teachers who taught in the high schools had diplomas in education obtained from Technical and Vocational Teachers College, Nkrumah and Copperbelt Colleges of Education. The graduates from these colleges were mandated to teach in upper basic schools, that is, schools with pupils in grades 8 and 9. The university graduates teach at high school level, that is, pupils from grades 10 to 12. However, some teachers with teacher certificates taught in high schools.

Further, a larger proportion of teachers had their initial teacher training in basic school teacher training colleges within Zambia. The majority of the staff had experience of between six and fifteen years – good enough for effective lesson delivery.

On age and experience of teachers, administrators reported that generally, newly appointed teachers (those with experience of less than 3 years) were more willing to adapt to changes in the delivery of lessons than old teachers (those with more than 5 years of experience). Young teachers were ready to break new grounds and face challenges including in methods of teaching. When they got stuck they easily sought help by consulting amongst themselves or with the old teachers. Supervisors, however, pointed out that young teachers were usually shallow in subject matter – because of that they usually flip-flopped in lesson delivery. Young teachers also needed social counselling to fit well into the profession.

Generally, on the other hand, the old teachers were quite loyal to 'traditional norms' of classroom practices and social conduct. In whatever they did, their main aim was to improve and/or uphold the pass rate in their subject area and maintain the tradition (of passing). They were very familiar with the teaching-learning materials and applied the 'know-it-all' approach. Administrators observed that most of such teachers were 'conservatists' and were reluctant to go for teaching strategies that challenged their usual way of lesson delivery – they wanted to do things as they usually did.

The age of pupils ranged from fourteen to twenty-two years. This is the age group that in psychology is referred to as adolescent stage. Adolescence is a stage in individual development that is associated with acute self-consciousness, rebelliousness and idealism (Kuppuswamy, 1996). It is a stage in school life where individual pupils needed a school in which they could get greater individual attention and reassurance – certainly because they were looking forward to competition, free expression with equals rather than complying with norms. This view is very cardinal as we discuss the findings of this study especially in the light of teaching methodologies and classroom activities. For instance, as a facilitator to learning, how does a teacher relate with pupils who were so ambitious, energetic and of high self-esteem? Probably freedom and liberalism would do.

The following is a discussion of the rest of the data collected following the research questions.

# 5.3 TEACHING METHODS HIGH SCHOOL TEACHERS ARE EXPOSED TO WHILE IN COLLEGES OF EDUCATION OR UNIVERSITIES

The study revealed that teachers were exposed to a variety of teaching methods. Teachers stated that they were exposed to the following teaching methods; group work, discussion, debate, field trips, research, discovery, lecture, demonstration, project, question and answer, role play and brainstorming. If well utilised, these are quite adequate for the effective delivery of a lesson. However, it was observed that some teachers knew some teaching methods more than others. It was clear from the data, for instance, that teachers knew more of teacher-centred than learner-centred methodologies. This scenario had a direct effect on the application of teaching methods as it was obvious that teachers could not use methods they were not aware of. This finding confirms the complaint raised by the Permanent Secretary in the Ministry of Education – that graduate and serving teachers were in most cases using teacher-centred type of methods of teaching, especially the lecture method.

Regarding training in pedagogy, it was expected that teachers graduating from colleges of education and universities would be well equipped with teaching techniques because the Ministry of Education (2001:3) confirm that "college tutors have undergone a major retraining programme in order to adopt the changed methodologies. Methods ... based on learner-centred principles ...". This had been advocated for and was included in the teacher trainer curriculum. In light of that, if all teachers were taught these methods while in colleges, then why only one teacher did, for example, express knowledge of the role play method of teaching? On the other hand, almost all teachers knew the lecture method. In light of that, Brimmer and Pauli (1971:85) aptly advise that:

It is useless to tell teachers over and over again that they should be guides and advisers – unless, in the course of their training, they have themselves taken part in a community experiment in an atmosphere which gives them an idea of what the atmosphere of a class should be.

In the opinion of the researcher, this apathy can be attributed to the less frequent use of some teaching methods by most teachers. That casualness, over the years, has resulted into incompetence and hence the fading away of the knowledge of those teaching techniques especially that were participatory and collaborative.

According to Lockheed and Verspoor (1991) an effective teacher is one who has a thorough knowledge of the subject matter; one who has a repertoire of pedagogical skills and one who was motivated. It can, therefore, be inferred that a teacher with a shallow knowledge of the subject to be taught has a narrow view of teaching approaches and therefore not motivated enough to teach.

## 5.4 EXTENT OF USE OF THE LECTURE METHOD OF TEACHING.

In as far as this study was concerned, administrators, teachers and pupils agreed that teachers had very good knowledge of the subject matter. That meant that it was possible for them to deliver the rightful content in any best way possible.

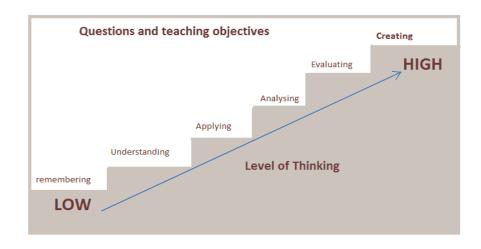
It has been found through this study that the commonest method of teaching employed by teachers was the lecture (expository) method where 66.7% of the teaching staff indicated that they used it more often than other methods. This was followed by discussion, question and answer and demonstration methods in that order. While most teachers used the expository methods, there was very little evidence that showed that teachers used participatory teaching methods such as role play, field trips, debate and project. In fact some teaching methods were neither known nor used by teachers. From those discussed in the literature review, methodologies not known included simulation games, and problem-solving. Further, the data does not show that teachers had changed their mind-set to adopt new trends of teaching and learning such as constructivism and outcome based education (OBE).

Therefore, it can be said that teachers still consider formal or instructive teaching as the best mode of delivery compared to collaborative and participative teaching. Although to some extent, as revealed in this study, some teachers involved pupils in their lessons, to a greater extent most of them overwhelmingly used own explanations as they delivered the subject material to the pupils.

Since the choosing of a method of teaching was usually done during the preparation stage other than spontaneously, teachers predetermined how well the lesson would flow and how the class activities would be organised. The study showed that the choice of method of teaching to be used was determined by several factors, among them: to introduce theorems and concepts so as to provide background knowledge; to explain a lesson thoroughly; to make pupils participate in class activities; to assist slow learners; to evaluate learning; to consider class size; and to consider availability or non-availability

of teaching/learning materials. This list was quite comprehensive. It would enable a teacher to be eclectic if taken into account seriously. During preparation the teacher might combine two or more of these factors to effectively and efficiently achieve the intended goals of a lesson.

However, teachers felt that a lesson had been successfully taught when the results from the exercises or tests given were good, or when the responses from the question and answer session were good. This is a narrow view of a successful lesson, firstly because as Kayungwa (2002:32) says "for a teacher to be perceived as effective, they should not only be eclectic in approach but also use vigorously the pupil-centred discovery approaches..." and secondly, according to the Interactionist Sociology of Education theory, Ruttler (1979) observed that pupils did not simply respond mechanically to stimuli forces such as drives, needs or motives but that they constructed their behaviour in the course of interaction with teachers and school administrators as well as with each other. Therefore, learner-centred methods, when utilised would be useful in producing an integrated learner whose competences would be useful to him/herself and the community at large. The teaching techniques used by the teacher ought to make the learner systematically climb the ladder of thinking from remembering to creativity as shown below by Crawford, et al (2005):



Adapted from: Crawford, et al (2005)

Figure 5: Levels of critical thinking

If what Crawford, et al (2005) in Figure 5 contemplate is the vision for any lesson, then, effects of a successful lesson should go beyond the classroom. In the view of the researcher, long after teaching a lesson pupils ought to be able to measure, infer, observe, communicate, investigate/research using the skills of 'hands-on' and 'minds-on' obtained during the lesson process. Indeed, it is true that some teachers from time to time have always adjusted their methodologies especially when their students appeared not to be learning. As well, pupils and teachers, in this study, acknowledged the fact that there was some form of interaction between them in their classrooms. There was also some promotion of academic freedom in class by teachers. Furthermore, administrators felt that teachers were flexible enough, helpful, open to other view points, rewarded pupils and were fairly organised in terms of class management and lesson execution despite the many industrial challenges they faced.

In this study, however, the teacher's adjustment in the methods of teaching was observed to mean the teacher resorting to question and answer method, drilling and preparing pupils for examinations. These were restrictive and inadequate approaches to climb the ladder of critical thinking. They do not enhance holistic development of pupils' life skills especially when out of school. Teachers on one had been firm on class control and executed punishment fairly. On the other hand, they spent some considerable time on class activities and encouraged pupils to work hard. According to some teachers this was being learner-centred. To some degree it is but that was more of a misrepresentation of the learner-centred teaching principles – giving freedom on one hand and taking it away with the other.

In short, it can be deduced from this discussion that teachers did not have an appropriate understanding of learner-centred teaching because though aware of the methods and their claim to use them, they still preferred to use approaches that were not permissive of classroom liberties and if they did they were not well applied. In other words, the teachers' theoretical knowledge and understanding of learner-centred methodologies did not influence their classroom practice since they had religiously followed the old ways of doing things. This view, however, does not imply to down-play the contribution to pedagogy of the teacher-centred school of thought but rather to clearly demonstrate that it is necessary to blend all pedagogical approaches in the quest for learners to acquire appreciable knowledge, skills, attitudes and values for the individual and society needs as well as for the present and future.

# **5.5** FACTORS THAT CONTRIBUTE TO EXCESS USE OF THE LECTURE METHOD OF TEACHING

This study revealed that use of learner-centred methods was inhibited by the following factors:

#### 5.5.1 Class size

The study has shown that administrators, teachers and pupils noticed that large class sizes had an adverse effect on the use of learner-centred methods. The blame for these large classes as Lifalalo (1995) points out, is placed on the high national population growth rate which has resulted into high demand for school places. Most teachers were discouraged from using learner-centred methodologies because in doing so they lost the grip on class control and organisation of the lesson. For example, some teachers pointed out that it was difficult to put pupils in groups of the right size suitable for group work in order to have meaningful group activities in an overcrowded class. Similarly, a teacher would need to organise a lot of teaching aids such as books and apparatus to effectively conduct an activity-based lesson. Therefore, to capture the attention of most pupils during a lesson in such a classroom situation there was need to lecture (like the way preaching was done in church) – where pupils kept quiet and listened as the teacher talked loudly to deliver the material to them.

During interviews with administrators, it was suggested that among other solutions, the provision of facilities such as libraries, computers with internet facilities and reading/study facilities would help alleviate the problems of congestion. In addition to this, it was observed that reducing the teacher-pupil ratio by reducing enrolment or stepping up construction of more schools and deployment of more teaching staff would be a solution to the problem.

However, not all learner-centred methods would be affected by the factor of class size. For instance, a variation of the discussion method known as directed listening-thinking activity could be done by pairing pupils or using groups of up to thirty members such that a class of sixty pupils might be divided into two groups only. Different kinds of groups are, suitable for different purposes, for instance; individual work may be best for drill and practice, paired work for cognitive problem-solving tasks, groups of 4-6 pupils for application and extension tasks while whole class for discussion and transmission (expository) teaching. Every method used in a lesson should contribute towards the

transformation of a learner following the steps: anticipation, building on knowledge and consolidation (Crawford et al: 2005). Therefore, there was a possibility of going round the challenge of an overcrowded class to implement the pupil participatory activities.

## 5.5.2 Wide syllabi

It has been argued that teachers who would like to use the learner-centred methodologies risk not being able to cover the wide syllabi because these methods consume a lot of time. Administrators pointed out that subjects such as Biology, Mathematics, Geography and Geometric and Mechanical Drawing had a lot of content that was to be covered in a year or over a period of three years. Teachers were therefore, 'forced' to use methodologies that enabled them to teach the content as quickly as possible to leave some time at the end of the period for revision and preparation for examinations.

According to Muma (2007) the problem of wide syllabi was real and it manifested itself in many subject areas apart from the sciences. Teachers found themselves with a lot of work to cover within the time frame of a year. As a result of this one would have to make a decision to teach using the learner-centred and remain behind or use the lecture method and complete the syllabus in time. During the face-to-face interview with a teacher it was said that administrators did not accept such excuses as 'not finishing a syllabus because of the methodology used'. It was argued that it was not worthwhile to spend a lot of time on straight forward material in the name of engaging the 'best practice'. The teacher added that some teachers combined the lecture method with question and answer method of teaching as a way of trying to imply that they were using the learner-centred approach. Though it seemed to be a good initiative, in the opinion of the researcher, this approach was a serious misapplication of methodologies and a violation of pedagogical skills – the two are different methodologies and should be applied as appropriate as necessary.

From the revelation above, it was clear that teachers were torn apart in terms of what and how to teach. Thus, we can say that the concept of learner-centred teaching was defined according to the teacher's own practice, that is, teachers constructed their own classroom practice of activity based lessons that served as a means of controlling the learning pace as well as implementing the learner participatory methodologies.

## 5.5.3 Learning/teaching materials

It has been reported in this study that it was indeed difficult to implement learner-centred methodologies in the classroom in the absence or shortage of a variety of

teaching/learning materials. The availability of facilities such as classroom and study space, chairs, desks and tables is indeed crucial to both teachers and pupils. In addition, the school should have books, paper, copiers, apparatus, laboratory or workshop equipment, models, charts, computers, projectors, printers and so on. Coupled with the teacher's inspirational approach, all these teaching/learning facilities and equipment create what is commonly referred to as a conducive classroom environment. For instance, Crawford, et al (2005:7) says "the arrangement of the space makes it easy and natural for the students to work together and to talk to each other". These educationists further postulate that:

"if we want to stress the idea that students are important, that what they have to say is interesting and should be shared, then we should arrange the classroom space in such a way to allow them to talk to each other and work together freely".

It was pleasing to note that the schools studied had most of the teaching/learning materials and facilities though, of course, not in a very good condition.

In this study, pupils felt that a good teacher was one who was well prepared, used a variety of teaching methods, was confident, passionate to the profession, simple in outlook and did better in class even with limited resources. They felt mutual teacher-pupil relationship enhanced pupil understanding and digestion of taught material because of a peaceful and tolerating environment. That would have more influence in lesson delivery than the use of materials.

Administrators insisted that a teacher could be resourceful through improvising teaching/learning materials. Teachers could still achieve a lot. What was required most was adequate preparation for lessons through which some teaching/learning resources could be organised. This meant that most teachers did not plan their lessons. Some teaching methodologies did not require a lot of teaching/learning materials, for instance, role play and discussions. All that was needed to implement them successfully was adequate planning by the teacher.

Of course another important characteristic of a good teacher that pupils pointed out was the teacher's ability to effectively use the teaching/learning material at an opportune time during a lesson. According to administrators, appropriate use of charts, models, apparatus, text books or indeed audio teaching aids in addition to adequate explanations and correct demonstrations would add to achieving a lot in a lesson. Teachers complained that those were not available or were inadequate thereby posing a serious threat to the use of some methods of teaching especially learner-centred while administrators were calling on teachers to be innovative and creative.

## 5.5.4 Calibre and Background of Pupils

Calibre and background of pupils was one of the elements referred to by the respondents when considering factors contributing to the excess use of the lecture method of teaching. Teachers interviewed associated 'calibre' with the quality and ability of pupils enrolled in grade 10 as individuals or groups to critical thinking. In other words, what value does a pupil add to the learning/teaching process when they could not read or write as expected? Some pupils did not understand basic information, how could they engage themselves in higher order thinking?

Teachers and administrators talked to regretted that most pupils who 'passed' and were enrolled in high schools were of low calibre. They hardly could read a sentence fluently or speak English (medium of instruction) fluently. One teacher said

"How can I ask a pupil to explain and later on discuss something when all she/he does is look at you and smile when you ask her/him to say something? It is as if you are talking to a dumb person or one whose language is so different from yours"

This situation is quite unfortunate for high schools. Language acquisition, especially second language acquisition was always interfered with by the mother tongue (first language or language of play). Thus the language problem had serious effects on the activeness of a learner in class and that inactivity put off most teachers.

Many teachers therefore, resorted to using the lecture method of teaching because apart from being demoralised by such pupils, it was found difficult to motivate them to do activity- based classwork. Administrators acknowledged that there were such pupils in schools with very poor academic background except that they were very few. Kasanda, et al (2005) also acknowledged the fact that there were students who go up the ladder of education with head knowledge which could not be used in effecting activity-based

situations. For such pupils, there was more development of the cognitive skills at the expense of manipulative and communicative skills. During classwork that 'handcaptcy' made it difficult for such pupils to effectively take part in activity-based lessons.

On that account, the researcher felt that, that was more of the reason why learner-centred methodologies were needed to develop the communicative skills of the pupils. Expository methods such as lecture, demonstration, question and answer or indeed learner-centred methods such as discovery, research and project that used questionnaires would not help improve the predicament in those pupils. They required a lot of practice through role play, simulation games, discussions and debates. Those slow learners had some prior knowledge and the main task for teachers at the high school level should have been to work on the old habits of thinking by showing such pupils how to inquire, question, seek and examine information in order to turn them around to become active pupils both within and outside class. They were confident enough that with intense practice the results were usually remarkable.

# 5.5.5 College/university lecturers and missionary teachers

College and university lecturers have the task of moulding the personality of individuals into professionals; in our case moulding up individuals to become teachers. Lecturers are subject (content) specialists and they teach teachers various methods of delivering that subject content to pupils. They teach how to teach content. In this study, we can simply describe lecturers as 'teachers of teachers' or guides and advisors (mentors) of teachers.

Missionary teachers, as presented in this study, were the first Christian missionaries who brought Western education to Africa and in particular to Zambia. They taught in mission schools or colleges. They taught mainly to educate Africans so that they could read the Bible and eventually the graduates would help them spread the word of God (Snelson, 1974).

As for college and university lecturers of nowadays, the study revealed that teachers were using the same methodologies their lecturers used to train them to teach. Teachers in the field performed their class duties in the same way they saw their lecturers teach while in colleges rather than what the lecturers said the teachers should do when attending to their pupils in high schools. In colleges, lecturers do lecture to students and in schools teachers teach pupils – that is the difference. It has been found in this investigation that teachers lecture to pupils, why? This is because teachers emulated what their mentors did when

they were being coached as student teachers in colleges. It was also proved by Muma (2007), in his study on activity-based science teaching, that for the students in college "the most prominent activities student teachers were exposed to by their science teacher educators were mainly group work and lecture note-taking" and that is how the teachers eventually conducted their lessons in schools. According to Kasanda, et al (2005) it can therefore, be said that there was a problem of contextualising what was learnt theoretically in college and what was practically applicable in schools. This confirms further the fact that most high school teachers prefer to use the lecture method of teaching because they did not have enough practice on methodologies. Most of the time they saw their lecturers lecture and therefore, thought that it was the best way of conducting lessons.

As for missionary teachers, it has been proved beyond doubt with a record of 64.9% in this study that missionary teachers' methodologies have had influence on modern teachers' classroom practices. Teachers agree that there has been influence from the methods of teaching that missionaries used in the past on the modern teachers.

Though each missionary group had its own teaching approach, there were similarities. The methods were inclined towards the expository (teacher-centred) techniques – and sometimes teachers (missionaries/priests) coerced their learners to get educated. This research takes note of the fact that those methodologies used for teaching lessons in mission schools in pre-colonial and colonial days (in Zambia) have had influence on teaching methodologies of nowadays. Teachers enjoy 'preaching' to the pupils in the same way evangelists taught their pupils in the mission schools of the past. The methodologies missionary teachers were using could have been more inclined to lecturing because they were trained priests and so their manner of teaching was as if they were preaching in church.

Some teachers, just like some parents believed that there were better teachers those days than there are now despite the economic, social, political, and technological developments and changes that have taken place since. Just as the old adages go, it is believed that "The first cut is the deepest" and that "Old habits die hard".

This revelation implies that the missionary legacy (tradition) has had a lasting impact on the methodologies used in schools and colleges or universities in Zambia up to now (for over a century). Aisedu-Akofi (1981) concludes on this with this contribution:

it is difficult to change established attitudes because the learnercentred teaching is a challenge on the part of the teacher because its organisation is labour intensive and a drain on one's time ... teachers had already formed their attitudes that were enduring up to date. As a result of this they were being haunted ... it requires a particular mind-set and readiness in order to be appreciated

## **5.5.6** Examinations and Tests

Through this study, the researcher found that one of the major reasons for the use of the teacher-centred methods was the need to drill learners for the purpose of passing examinations especially national examinations. Examination results were acting as a major yardstick in the assessment of teaching and learning in schools. So, it had been felt that the better the examination results for a pupil or school, the better the teaching and learning had been during the academic period. This view from one administrator spoke volumes on this subject:

'As a Head of this institution, if I do not make the pupils pass examinations my stay in this school and my job in general is at stake. Supervisors from the district and province, parents, pupils or even teachers themselves do not take it kindly when the results for a school are poor. A teacher whose subject results are poor is a laughing stock among fellow teachers and parents or community. It's like you don't know what your profession demands'

Through the expository methodologies the teacher drilled pupils to such an extent that rote learning (memorisation) was promoted – after all, pupils were expected to bring out what they were drilled on in the tests or examinations, and if they are able to, that's fine.

That view is supported by Loughran (2006) who said that pupils enjoyed lessons from old teachers, especially those labelled 'good' as they made them understand content easily and pass examinations. Teaching was biased towards enabling pupils pass examinations and by pupils going through over and over again certain topics and past papers (questions) whose content was expected in the coming examination. They 'spoon-fed' pupils by drilling them, thereby promoting rote learning which in turn promoted the application of the lowest level of thinking (recalling of facts). What was paramount was

'passing' examinations or tests rather than making pupils wholesomely gain knowledge, skills and values necessary for the present and future survival – developing children holistically who, in addition to recalling and understanding would apply, analyse, evaluate and be creative. Teachers nonetheless, were going for the former at the expense of the later.

## 5.5.7 Supervision of Teaching

During interviews, administrators brought out the qualities of good and effective teachers. They said effective teachers were those who had the following qualities:

- were willing to be flexible;
- had capacity to perceive the world from the pupils' point of view;
- had the ability to 'personalise' their teaching;
- were willing to experiment on new ways of doing things;
- developed/had the skill in asking questions appropriately;
- knew their subject matter;
- were willing to provide study help to pupils;
- had capacity to be reflective; and,
- had the conversational manner in their teaching.

Overall, the qualities listed above are the classroom practices (performances) that were considered in this study in the last chapter. The ratings of the practices by both administrators and teachers were quite high meaning that all events in class went on very well, even though in terms of learner-centred methods, the majority of the teachers agreed that female teachers were fond of using them than their male counterparts. Pupils claimed that female teachers usually motivated pupils more towards creativity and free thinking than their male teachers. Male teachers usually forced pupils to be creative and thoughtful through such expressions as "Maths is for hard thinkers. Work hard or you will fail".

However, responding to the assertion that "teachers needed close supervision in order to implement learner-centred methodologies in their lessons", all teachers were almost neither for nor against as they were split into almost two equal groups. With this revelation therefore, almost all teachers believed that teachers who used learner-centred strategies were still as effective as those who used the teacher-centred strategies of

teaching and thus there was no need for strict supervision except that teachers needed self-regulation.

Nonetheless, a group of teachers felt that their colleagues who used learner-centred approaches were lazy because they enjoyed sitting back while they engaged pupils in activities that they themselves were supposed to perform. One member of staff asked: 'If you are a trained teacher, why ask pupils to teach themselves?' This group of teachers was for the idea of close supervision of teachers by the administrators. On the other hand, another group contended that assuming that they were accomplished masters of their trade; teachers would do a lot of ground work on behalf of their pupils before classwork thereby providing effective organisation appropriate, relevant and objective for lesson delivery. Thus, this group felt there was no need for someone to be watching over them as they taught pupils since they were well trained in methodology.

Another consideration: administrators reported that it had been observed that most newly appointed teachers were more flexible in their styles of approach rather than being critics and desk observers. Young teachers took pupils as co-operating partners who were dynamic and creative in classroom practices. Hence, they were seen studying content, preparing lesson plans and/or charts, rendering personal attention to pupils and sometimes giving rewards to outstanding and hardworking pupils. It was also observed that they had been marking/correcting pupils' work in the staffroom together with old teachers (especially the teachers of languages and Mathematics). They also mingled freely with pupils in recreation and club activities. Administrators felt such teachers needed supervision to moderate their activities even though they were already self-motivated.

On 'old' teachers, administrators reported that they were well endowed with the subject content and to some extent the strategies of delivery. For a number of reasons 'old' teachers went to class without planning for their class activities. They relied mostly on their greatest asset – experience. Pupils described most of them as self-centred and closed-up because most of them rarely had time for pupils to discuss problems or welfare. Administrators said that 'old' teachers believed that a successful lesson was one where at the end of it pupils were able to satisfactorily perform a certain task, for instance, pupils performing a demonstrated practical lesson successfully and attaining more than fifty per cent in a written or oral exercise (the behaviourist perception). These

teachers needed supervision as they were slowly degenerating in their professional performance and seemed demotivated.

Therefore, it can be deduced that lack of supervision was one of the factors that led to the excessive use the lecture method in high schools. In addition to that the investigation has further pointed out that strengthening teacher-group meetings under the auspices of the Continuous Professional Development (CPD) programme in subject areas would help monitor lesson delivery and generally improve professionalism.

# 5.6 EFFORTS TO ENCOURAGE TEACHERS TO USE VARIOUS TEACHING METHODS IN HIGH SCHOOLS

In the opinion of the researcher on the philosophy and teaching style of the teacher, it all boils down to the mind-set of the teachers. Thus, the teachers' attitude must be changed. It is attitude that can inhibit or enhance learner-centred teaching in schools.

The study has shown that schools had embarked on short term in-house training through an initiative known as CPD programme. Apart from the training teachers had during their initial teacher training in methodologies, there was no other long term training that was undertaken either directly or indirectly.

Administrators explained that the CPD was a Ministry of Education approved and sponsored programme at school level. The CPD programme was an initiative for inservice teacher training aimed at mainly improving lesson delivery at local school or zone level. It was done mainly in two ways: the Demonstration, Observe, Discuss and Implement (DODI) and the Subject Meeting at the Resource Centre (SMARC) teacher groups. Both involved groups of subject teachers.

One Head teacher explained how the programmed worked: In their subject areas, teachers converged and picked a topic of concern out of the many forwarded by members of the group. Together they planned how it could be best taught. After that, one teacher would take up the challenge to teach the discussed topic to fellow teachers using the newly proposed/suggested approach. Finally, the group would re-sit to discuss/reflect on the outcome of the lesson especially the strengths and weaknesses. The newly approved approach would be agreed upon as the way of teaching that rehearsed topic. The process would be repeated over and over if the results were not satisfactory to the group until they approved of what could work best. The same process would be done for the other

topics. And teacher groups in each subject area would do the same. This approach conforms to what Crawford, et al (2005:9) suggested in their analogue that:

Learning a new teaching method is like learning a new move in sports – you have to see it done, try it out in front of someone who knows how to do it better, and get suggestions to improve your performance.

During the CPD programme sessions both the young and old teachers discussed the best teaching methods for a topic (whether teacher- or learner-centred). They also considered the availability or non-availability of teaching/learning materials, suggestions for improvising teaching/learning materials, where and when to seek help, and many other issues of concern.

Administrators were pleased with this programme. It provided social gatherings for teachers as well as according teachers opportunities to learn from each other. Administrators also took advantage of the programme to make administrative announcements to teachers, for instance, changes in the curriculum or government policies. Administrators, therefore, fully supported the CPD programme.

Despite that effort to improve methodologies at local level, there was an observation that little or nothing at all had been done for long term training in methodologies outside the schools or resource centres. There were no specially designed refresher courses in methodologies in colleges or at the University of Zambia. If there were such courses, only few teachers were exposed to them.

## 5.7 LESSONS FOR ADMINISTRATORS

This chapter has discussed some factors that influence teachers' choice of teaching strategies. It has been observed that the way teachers were exposed to teaching methods during their initial training in colleges or universities had influenced teachers' choice of the teaching methods used in high schools. Administrators should take note that factors that contribute to excess use of the lecture method include: large class size, inadequate teaching/learning materials, low calibre of pupils in terms of subject knowledge, lack of supervision by administrators, wide syllabi, examination driven type of education and the desire to produce good results and the influence they got from lecturers and missionary teachers.

Teachers have got stuck to using the lecture method due to these challenges. The highlighted factors are indicative of the realisation that as one of the main stakeholders (as policy makers and enforcers) administrators should play an active role to successfully implement and enhance the use of learner-centred techniques in schools. It is the role of the administrators to promote the philosophical culture of sharing experiences, knowledge and resources as well as promoting the tenets of democracy in the school environment. Kudumo as quoted in Sguazzin and van Graan (1999) tells us that:

Change in classroom practice can be enhanced and sustained by creating a conducive environment whereby teachers in general, and subject teachers at a particular school, neighbouring school, circuits, districts, regions and at national level start to interact and share experiences, ideas and resources.

There is need for concerted effort to effectively deliver lessons in the classroom in order to achieve the national education goals.

#### **CHAPTER SIX**

#### 6.0 CONCLUSION AND RECOMMENDATIONS

## **6.1 INTRODUCTION**

This chapter made up of the conclusion, recommendations and proposes areas for further study based on the findings of the study.

## 6.2 CONCLUSION

From the discussion of the findings a number of conclusions can be drawn concerning the factors that contribute to the excess use of the lecture method of teaching among high school teachers in selected schools of Kitwe and Kalulushi districts.

Using the research objectives and questions the following are the conclusions of the study:

- 6.2.1 Colleges and Universities of education expose trainee teachers to a good number of teaching methods. Teachers are trained in both teacher- and pupil-centred methods. These methods include: Lecture, Question and Answer, Group work, Demonstration, Discovery, Discussion, Project, Debate, Role play, Research, Brainstorming and Field trips.
- 6.2.2 Very few methods of teaching are put to use. The methods commonly used by teachers in high schools are teacher-centred. The study revealed that for various reasons, teachers excessively used the lecture method of teaching. Other methods commonly used included demonstration, observation, and question and answer. Of the learner-centred methods used teachers preferred mostly group work and discussion. Methods such as simulations and problem-solving were neither known nor used by teachers.
- 6.2.3 The study indicated that factors that lead to excessive use of the teachercentred methods, which was the main focus of the study, especially the
  lecture method of delivery included: lack of or inadequate teaching
  learning materials, need to explain and make pupils understand, classes
  were too large, need to quickly cover the syllabus as the system is
  examination oriented, low (de-motivating) participation of pupils, teachers
  lecture in high schools because they were lectured to while in college or

university, to prepare pupils adequately for examinations, need to strictly control pupils' academic freedom, the older the teacher becomes in the teaching profession, the less one prepares for lessons – they claim they become more effective and efficient, and the legacy of missionary teachers which still influence (haunt) teachers of nowadays.

6.2.4 School administrators are encouraging high school teachers to use a variety of teaching methods by coming up with the school or zone based Continuous Professional Development (CPD) programmes through conducting Demonstration, Observation, Discussion and Implement (DODI) activities and Teacher Groups (TGs) workshops. Through these groupings and discussions teachers learn from each other the best techniques of lesson delivery. The administrators also endeavour to replace/update equipment as well as provide learning/teaching materials. Teachers are encouraged to be resourceful and eclectic.

## **6.3 RECOMMENDATIONS**

Based on the findings and conclusion discussed above the recommendations arising from this study are three-fold: firstly to administrators (Policy makers, Head teachers and Heads of Department) secondly to teachers in high schools, and thirdly to teacher training institutions.

## **6.3.1 Recommendations to Administrators**

- a) This study concluded that one of the factors that adversely affected the use of learner-centred methodologies was the wide syllabi. Following that, it is recommended that stakeholders, that is, the Ministry of Education, Curriculum Development Centre, Teacher Education institutions, Head teachers and Heads of Department should together revisit the syllabi and remove some content that make the syllabi (curriculum) bulk. This will call for curriculum harmonisation since as Brimmer and Pauli (1971) have rightly observed curricular, methods of teaching and evaluation are closely interdependent and should not be dealt with independently.
- b) Secondly, this study has also revealed that it was difficult to implement learnercentred methodologies in the classroom in the absence or shortage of a variety and appropriate teaching/learning materials. It is therefore, recommended that the

Ministry of Education and school managers should strongly advocate for improved budgetary allocation in order to equip and re-equip laboratories, workshops, kitchenettes and other specialised rooms in schools. Further, enough and appropriate books should be stocked in school libraries and resource centres for both teachers and pupils.

- c) Thirdly, this study has revealed that high school teachers lecture their pupils because of the large class size. The study has shown that the fewer interactions in very large classes are due to the adoption by teachers of more formal teaching styles which are teacher-centred and thus impede pupils' full classroom participation. To that effect, it is recommended that the Ministry of Education and Head teachers should regulate vigorously the enrolment of pupils in high schools. The problem of overcrowding places a lot of pressure on teachers as well as teaching/learning materials and equipment. The other way of going round this problem would be to recruit more teachers or provide more classroom space with enough teaching learning resources.
- d) Fourthly, it has been discussed that school administrators are encouraging high school teachers to use a variety of teaching methods by coming up with Continuous Professional Development (CPD) programmes. While this is commendable, the Ministry of Education together with Head teachers should ensure that there is sustainability and improvement of the programme by ensuring that time, funding and material resources for training purposes are readily available to motivate the teaching staff.
- e) Fifthly, it has been observed that the calibre of pupils entering grade 10 is below capacity for effective use of the learner-centred methods of teaching. This is a matter of the Ministry of Education revisiting the pass mark for grade 10 entrants so that those with better marks are allowed to proceed to grade 10.
- f) Further, the Ministry of Education and Head teachers should encourage teachers and educationists in general to write books, magazines and other materials as individuals, teacher groups or as subject area associations or specialists illustrating how learner-centred techniques can be used effectively in high schools according to the Zambian situation. School managers should strive to promote excellence and effectiveness.

## **6.3.2** Recommendations to Teacher training institutions

- a) Firstly, the study has pointed out that lecturers do lecture to student teachers and thus student teachers graduate as 'lecturers' for high schools. There is need to change this trend and therefore, it is recommended that college management revisits the teacher training programmes with a view to enhancing the practical teaching of methodologies to student teachers.
- b) Secondly, it has been observed in this study that students have little practice on methodologies except what they get from their mentors (lecturers). It is recommended that school experience or teaching practice (TP) should be vigorously monitored and sustained by motivating both lecturers and students lecturers should demonstrate enough competence in order to mentor students effectively.
- c) This study further advocates for lecturers in teacher training institutions to use learner-centred methodologies when delivering their own subject content to student teachers in order to be practical in their teaching. To effectively do that there is need to strengthen the CPD programmes in colleges.
- d) It is further proposed and recommended that management and the education departments in teacher training institutions review, develop and implement a full methodology course (syllabi) to include activities such as demonstrations, group teaching, peer teaching, school experience, monitoring and evaluation.

# **6.3.3** Recommendations to high school teachers

- a) The study advises that since pedagogy is constantly changing teachers should also constantly rekindle and reflect on their teaching strategies through CPD programmes currently going on in schools. To be eclectic enough, teachers ought to prepare and conduct lessons according to prevailing situations. They should embrace the use of technology such as computers, projectors and other teaching aids for outcome based education to be effective. It is also important that teachers are competent enough to blend learner- and teacher-centred methodologies as is found necessary to enhance learning and teaching.
- b) This study observed that teachers felt that pupils' academic freedom needed strict control. To the contrary, the study recommends that teachers be

integrative in approach. Integrative teachers, as opposed to dominative teachers, are those who approve, commend, accept and help learners. They elicit friendliness, co-operativeness and self-directedness in learners. These are mostly realised through learner-centred teaching and being in concomitant with the principles of constructivism.

## 6.4 RECOMMENDATIONS FOR FURTHER RESEARCH

The subject of pedagogy is vast. This study concentrated on the factors contributing to excess use of the lecture method in some high schools of Kitwe and Kalulushi districts. Therefore, many aspects of teaching methodologies were not investigated. In view of that the following could be investigated further:

- 6.4.1 Teachers are making an effort to employ learner-centred approaches during their lessons. However, their understandings of learner-centred approaches of teaching vary among teachers, administrators and schools. In one view, learner-centred seems to imply that it is activity-based associated with learning/teaching materials on one hand and child-play on the other. Generally, there seems to be lack of common understanding of leaner-centred education.
- 6.4.2 Further studies may also investigate the administrators, that is, Head teachers and Heads of Department competencies on pedagogical skills and their leadership styles. Head teachers and schools, as key agents of the implementation of learner-centred techniques should play a crucial role. Much depends on the calibre of the management of the school to effectively implement such socio-philosophical ideas.

#### REFERENCES

Aga, F. J. (2005) 'Active Learning Versus the Traditional Lecture Method of Teaching at Higher Educational Institutions: A Case Study of Learners' Preference at the Department of Business Education, Addis Ababa University' in *The Ethiopian Journal of Education Vol. XXV No. 1: 49-77*, Addis Ababa: Addis Ababa University

Apple, M. (1982) Education and Power, London, Routledge and Keagan Paul

Aldrich, C. (2003) Learning by Doing: A Comprehensive Guide to Simulations, Computer Games, and Pedagogy in e-Learning and Other Educational Experiences, San Francisco: Pfeifer-John Wiley & Sons

Asiedu-Akofi, K. (1981) *The Living Classroom*, London: George Allen and Unwin (Publishers) Ltd

Ausubel, D. (1968) *Educational Psychology: A cognitive View*, New York: Hort, Reinhart and Winston

Ayers, W, (1991) "Grounded insight". In K. Jervis and C, Montag (eds.) *Progressive Education for the 1990s: Transforming Practice*. New York: College Press

Bastable, V., Shifter, D., and Russell, S. J. (2003) *Examining Features of Shape Case-book*. New Jersey: Dale Seymour

Best J. W. and Khan J. V. (2009) *Research in Education*, New Dehli: PHI Learning Limited

Biggs, J. (1987) *Student Approaches to Learning and Studying*, Camberwell: Australian Council for Educational Research

Bless, C. and Achola, P. (1990) Fundamentals of Social Research Methods: An African Perspective, Lusaka: Government Printers

Bonwell, C. and Eison, J. (1991) Active Learning: Creating Excitement In The Classroom, Washington DC: George Washington University

Brimmer, M. A. and Pauli, L. (1971) Wastage in Education: A World Problem, Paris: UNESCO

Brophy, J. E. and Good, T. L. (1974) *Teacher-student Relationship*, New York: Reinhart and Winston

Brown, J. S., Collins, A. and Dugind, P. (1989) "Situated Cognition and the Culture of Learning". In *Educational Researcher*, 18 (1) pp. 32 – 42

Capel, S. et al (Eds), (2005) Learning to Teach in the Secondary School, New York: Routledge

Child, D. (1973) Psychology and the Teacher, London: Longman

Chiyeke, G. S. (1987) 'An Investigation into the Factors affecting Geography teacher Classroom Performance at Junior and Senior Secondary School levels in Zambia', *M. Ed Thesis (Geography)*, Lusaka: University of Zambia.

Choi, J., and Hanaffin, M. (1995) "Cognition and Learning Environments". In *Educational Technology, Research and Development*, 43 (2), pp. 53 – 69

Cobb, P. and Yackel, E. (1996), 'Constructivist, Emergent and Sociocultural Perspectives in the Context of Developmental Research' in *Educational Psychologist*, 31 (3-4), 175 - 190

Cole, M. (1990) "Cognitive Development and Formal Schooling: The Evidence from Cross-cultural Research". In L. Moll (ed.) *Vygotsky and Education: Instructional implications and Applications of Socio-historical Psychology*. Cambridge: University Press

Crawford, A. et al (2005) *Teaching and Learning strategies for the Thinking Classroom*, New York: The International Debate Education Association

Darling-Harmond (1992) The Right To Learn, San Francisco: Bass Publishers

Dewey, J. (1916) Democracy in Education: An Introduction to the Philosophy of Education, New York, The Free Press

Elmore, R., Peterson, P. and McCarthey, S. (1996), *Restructuring in the Classroom*, San Francisco, Jossey-Bass

Farnham, S. (1990) Schooling. Cambridge: Harvard University Press

Fien, J. et al (Eds.) (1984) *The Geography Teachers Guide to The Classroom*, Sydney: The Macmillan Company of Australia

Fontana, D. (1988) Classroom Control: Understanding and Guiding Classroom Behaviour, London: The British Psychological Society

Freire, P. (1972) Pedagogy of the Oppressed, London: Penguin

Glaser, R. (1990) Testing and Assessment. Pittsburgh: University Press

Good, T. L. et al (1980) 'Classroom Interaction as a Function of Teacher Expectations, Student sex and Time of Year' in *Journal of Educational Psychology* 72, 378 – 385

Harmond, L. (1996) Authentic Assessment in Action: Studies of Schools and Students at Work. New York: College Press

Harskamp, E. et al (2008) 'Group Composition and its Effect on Female and Male Problem-solving in Science Education' in *Educational Research Vol. 50 No. 4*, University of Groningen: Routledge

Heath, S. B. (1983) Ways with Words. Cambridge: University Press

Hitchcock, G. and Hughes, D. (1952) Research and the Teacher: A Qualitative Introduction to School Based Research, London: Routledge

Hopkins, A. (1996) School Improvement for Real, London: Falmer Press

Hornby, A. S. et al (Eds) (2006) Oxford Advanced Learner's Dictionary of Current English, London: Oxford University Press

Kasanda, C. et al (2005) 'Southern African Association for Research in Mathematics, Science and Technology' in *Proceedings of the 15<sup>th</sup> Annual SAAMSTE Conference*, Windhoek

Kayungwa, L. J. (2002) 'Qualities of an Effective Teacher as perceived by Grade 12 pupils and Teachers in Selected Secondary Schools in Lusaka', *M. Ed Thesis* (*Educational Psychology*), Lusaka: University of Zambia.

Kochhar, S. K. (1985) *Methods and Techniques of Teaching*, New Dehli: Sterling Publishers Private Limited

Kombo D. K. and Tromp D. L. A. (2006) *Proposal and Thesis Writing: An Introduction*, Nairobi: Paulines Publications Africa.

Lampert, M. (1989) *Teaching and Learning Division for Understanding in School.* Michigan: University Press

Lee, C. I and Tsai, F. I. (2004) 'Internet Project-based learning environment: The effects of Thinking Styles on Learning Transfer' in *Journal of Computer Assisted Learning 20*, Tainan: Blackwell Publishing Ltd.

Lifalalo, G. K. (1995) 'The Relationship of Class size to Teaching Styles and Teacher-Pupil Interaction in Geography: An observation Study', *M. Ed Thesis*, Lusaka: University of Zambia

Little, J. W. (1993) Teachers' Professional Development in a Climate of Educational Reform' in *Educational Evaluation and Policy Analysis*, 15 (2) 129-151

Loughran, R. (2006) Developing a Pedagogy of Teacher Education, London: Routledge

Maliwatu, J. (2006) 'A Comparative Study of Classroom Practices of Graduate and Non-graduate Teachers of Mathematics', *M. Ed Thesis*, Lusaka: University of Zambia

McLane, J. B. (1990) Writing as a Social Process: Instructional Implications. Cambridge: University Press

Ministry of Education (1996) Educating Our Future: National Educational Policy, Lusaka: Government Printers

Ministry of Education (2001) *Teachers' Curriculum Manual*, Lusaka: Curriculum Development Centre

Ministry of Education (2009) Zambia Education Sector Strategic Plan: 2009 – 2015 (Draft), Lusaka: Government Printers

Ministry of Education (2010) 'Standards Officers' Performance Audit Report' (unpublished), Lusaka: Ministry of Education

Muma, E. (2007) 'An Exploration of Science Teacher Educator's Interpretation of Activity-based teaching at Kitwe College of Education' *M. Ed Thesis*, Lusaka: University of Zambia

National Research Council (2000) *How People Learn: Brain, Mind, Experience and School.* Washington DC: National Academy Press

Noddings, N. (1990) "Constructivism in Mathematics Education". In R, B, Davis (ed.) Constructivist Views on the Teaching and Learning of Mathematics. Reston: NCTM

Newman, F. and Associates (1996) Authentic Achievement. San Francisco: Jossey-Bass

Nola, R. (1997) "Constructivism in Science and Science Education: A Philosophical Critique". In *Science and Education*, 6 (1-2), pp. 55 = 83

Olson, D. (1986) "Intelligence and Literacy: The Relationship between Intelligence and Technologies of Representation and Communication". In R. Sternberg and R, Wagner (eds.) *Practical Intelligence: Nature and Origins of Competence in the Everyday world*. Cambridge: University Press

Open University (1976) Classroom Interaction (Block II), Walton Hill: The Open University Press

Panofsky, C. et al (1990) "The Development of Scientific Concepts and Discourse". In L. Moll (ed.) *Vygotsky and Education: Instructional Implicational and Applications of Socio-historical Psychology*. Cambridge: University Press

Peter, G. (1982) Teaching and Learning of Mathematics, London: The Worburn Press

Petty, G. (2004), *Teaching Today*, London: Nelson Thomas Ltd

Percival, F., Lodge, S. and Saunders, D. (1993). *The Simulation and Gaming Yearbook:* Developing Transferable Skills in Education and Training, London, Kogan Page.

Piaget, J. (1971) Biology and Knowledge. Edinburgh: University Press

Piaget, J. (1952) *The Origins of Intelligence in Children*, New York, International University Press.

Prawat, R. (1992) Teachers' beliefs about Teaching and Learning: A Constructivist Perspective' in *American Journal of Education*, 100 (3), 354 – 395

Punch, K. F. (2004) Developing Effective Research Proposals, London, SAGE Publications Ltd

Purpel, D. E., and Shapiro, S. (1995) *Beyond Liberation and Excellence: Reconstruction the Public Discourse and Education*. Westport, CT, Bergin and Garvey

Scribner, S. (1985) "Vygotsky's use of History". In J. Wertsch (ed.) *Culture, Communication and Cognition: Vigotskian Perspective*. Cambridge: University Press

Semel, S. F. (1999) "The Datton School: The Transformation of a Progress School." In S. F. Semel and A. R. Sadovnik (eds.) *School of Tomorrow, Schools of Today: What happened to Progressive Education.* New York: Lang. pp. 171 - 212

Sguazzin, T. and van Graan, M. (1999) Education Reform and Innovation in Namibia: How Best can Changes in Classroom Practice be Implemented and Supported? Proceedings from the 1998 NIED Educational Conference, Okahandja: Longman Namibia

Smith, E. <u>et al</u> (2003) *Introduction to Psychology*, Belmont: Waldsworth/Thomson Learning

Snelson, P. D. (1974) Educational Development in Northern Rhodesia: 1883 – 1945, Lusaka: NECZAM

Stapleton, M. (2004) Psychology in Practice, London: Hodder and Stoughton

Tharp, R. and Gallimore, R. (1988) Rousing Minds to Life: Teaching, Learning and schooling in Social Context. Cambridge: University Press

Tiberondwa, A. (978) Missionary Teachers as Agents of Colonialism, Lusaka: NEDCOZ

Tobin, K. (Ed) (1993) *The Practice of Constructivism in Science Education*, New Jersey: Lawrence Erlbaum Associates Publishers

Vygotsky, L. (1978) *Mind in Society: The Development of Higher Psychological Processes*. Cambridge: Harvard University Press

Walford, R. (Ed.) (1981) Signposts for Geography Teaching, London: Longman

White, C. J. (2002) Learner Guide for Research Methods and Techniques, Pretoria: Technikon

Windschitl, M. (2002) 'Framing Constructivism in Practice as the Negotiation of Dilemma: An Analysis of the Conceptual, Pedagogical, Cultural, and Political Challenges Facing Teachers', in *Review of Education Research*, Vol. 72, No. 2, Washington: American Educational Research Association

### **Internet Sources**

http://epaa.asu.edu/epaa/v8nl/

http://.garysturt.free.online.co.uk/edutime.htm

http://necs.ed.gov/surveys/frss/publications/19999080

http://www.ed.gov/admins/tchrqual/learn/preparingteachersconference/

http://www.etin.org.uk/page37.html

http://www.utexas.edu/academic/cte/sourcebook/teacher.pdf

### **APPENDICES**

### **APPENDIX "A"**

### RESEARCH INTERVIEW SCHEDULE FOR ADMINISTRATORS

### Dear Respondent

This is a study of the factors that contribute to the excess use of the lecture method by high school teachers. It is intended to help improve teaching and learning in schools. The statements or questions I will ask you will seek your opinion on a number of issues related to classroom practices.

Note that the information you give shall be treated in strictest confidence, so please respond to all the questions freely and honestly. The researcher will collect, record and analyse the information (data) personally.

analyse the information (data) personally.						
1.	Name of School:	2. Rank:				
3.	Age:	4. Length of Service				
5. Qu	ualifications:					
5. Where did	d you do your initial teacher training?					
6. Does the College/University a teacher went to for initial teacher training have any effect on his/her classroom practice? Explain						
7. In your op	pinion, who is an effective teacher?					
8. Broadly, teaching methods are grouped into two: teacher-centred and pupil-centred methods. Tell me (In the space below list) as many teaching methods as you may know.						
	e teacher-centred methods is the Lecture the Lecture Method of teaching more th					
	of teaching and learning in the classroomicive for learning.	m, explain the environment that you				

11. (i) Do you think a teacher can still be effective in class even without some teaching

aids/materials (e.g. books) and facilities (e.g. library)?

(ii) If 'Yes', how?

(iii) If 'No', why?

12. How much freedom do teachers give to pupils in the classroom? Explain.

13. Explain what is being done to improve teaching methods in your school or department.

14. Explain what happens when a young teacher from college introduces a new way of teaching in your department/school. What is the reaction like from the old teachers?

15. How do you rate your staff in the following classroom practices? (Researcher: Read the practices to the respondent and tick  $(\sqrt{})$  in the appropriate column).

The scale is: 4=excellent 3=Good 2=Fair 1=Poor

PRACTICE		RAT	ING	
	4	3	2	1
Preparation for lessons				
Knowledge of subject				
Organisation of lesson				
Presentation				
Time spent on classwork				
Use of teaching aids				
Encouraging pupils to think				
Flexibility				
Attention to pupils				
Pupil academic freedom				
Class control				
Punishment				
Rewards				
Open to other view points				

16. As we conclude our interview, what do you think should be done to improve lesson delivery in the classroom?

### The End

Thank you for your participation

### **APPENDIX "B"**

### RESEARCH QUESTIONNAIRE FOR TEACHERS

### Dear Respondent

This is a study of the factors that contribute to the excess use of the lecture method by high school teachers. It is intended to help improve teaching and learning in schools. The statements or questions will seek your opinion on a number of issues relating to classroom practices.

Note that the information you give shall be treated in strictest confidence. So, please respond to all the questions freely and honestly. The researcher will collect and analyse the information (data) personally.

### **PART A**

Fill in	the bla	nk spaces by writing your answer.
	1.	Name of School
	2.	District
	3.	Grade(s) you are teaching
	4.	Your age 5. Sex
6. Yo	ar profes	ssional qualification(s)
7. Ler	igth of S	ervice
		iversities you attended for your initial teacher training
9. List Colleg	t as man ge/Unive	y as possible, methods of teaching you were exposed to while in ersity during your initial teacher training.
10. (a) use m	Out of ost in cl	the methods you have listed under question (9) above, select three that you ass, and write them down in the space below
(b) Gi	ve reaso	ons for your answer in 10(a)

### PART B

Tick ( $\sqrt{\ }$ ) the correct re	esponse from the	ne choices given.	
11. How often do you	use learner-ce	ntred methods in your	lessons?
(a)Never [ ]	(b) Alv	ways [ ]	
(c) Sometimes [ ]	(d) Ra	rely []	
12. Female teachers a	re fond of using	g pupil-centred method	ds
(a)Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
13. Teachers who use wasters".	participative (	learner-centred) metho	ods are regarded as "time
(a)Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
14. Teachers who use	teacher-centre	d methods are able to	finish the syllabus on time
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
15. Teachers who use	learner-centre	d methods do not finis	h the syllabus on time.
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
16. Teachers are disco	ouraged to use	learner-centred method	ds due to large class sizes
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
17. Pupils regard teac	thers who use le	earner-centred method	s of teaching as lazy.
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]

18. Pupiis enjoy iess	ons where info	rmation is given to ther	n by teachers quickly.
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
19. Parents and schoinformation on their		rs do not like teachers	who ask pupils to look for
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
20. Teachers who us	e learner-centre	ed methods are disliked	by their fellow teachers
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
21. It is difficult to it learning-teaching ma		er centred methods in t	he absence of a variety of
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
22. Teachers use tea	cher-centred m	ethods in order to prepa	are pupils adequately for
examinations.		T I	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
23. Teachers need cl methodologies in the	•	in order for them to in	nplement learner-centred
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
24. Some trained tea	chers do not kn	now how to use learner-	centred teaching strategies.
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]

25. Teachers feel pup	oils' acaden	nic freedor	m in class needs	s strict contro	ol	
(a) Strongly agree	[]	(b) A	gree	[]		
(c) Disagree	[]	(d) S	trongly disagre	e [ ]		
26. Your college/univ	•	urers have	influenced you	so much in y	our using to	eacher-
(a) Strongly agree	[]	(b) A	gree	[]		
(c) Disagree	[]	(d) S	trongly disagre	e [ ]		
PART C						
Fill in the blank space	es by writir	ng your an	swer for the que	estion.		
Methods of teaching methods.	are broadly	divided in	nto two: teacher	r-centred and	learner-cen	tred
27. In your opinion, v	why do you	use teach	er-centred meth	ods of teachi	ng?	
28. What challenges	have you e	ncountered	l in using the pu	upil-centred r	methods?	
29. Learner-centred r	•	•		·		ring
Facility	Very	Good	Satisfactory		Not	
Text books School library	Good			satisfactory	Available	_
Internet/Computers Classroom space						-
Furniture in classes						1
Laboratories						1
Recreation						1

Office accommodation

Dining/Assembly Hall

Ablution rooms

80. What effect has your experience (length of service is delivery?	n teachir	ng) had	in your	lesso
31. How do you rate yourself in the following classroom appropriate column. The scale is: 4=excellent 3=		es? Tick 2=Fa		the =Poo
PRACTICE		DAT	ING	
TRACTICE	4	3	2	1
Preparation for lessons	-	3		-
Knowledge of subject				
Organisation of lesson				
Presentation				
Helpful				
Time spent on classwork				
Use of teaching aids				
Encouraging pupils to think				
Flexibility				
Attention to pupils				
Pupil freedom				
Class control				
Punishment				
Rewards				
Open to other view points				
32. What makes you feel 'Today I have successfully tau	ight my l	esson'?		
33. What is bad teaching?				
34. State short-term courses in teaching methods that yo	u have a	ttended	recentl	

35. State long-term courses in teaching methods that you have attended recently.	
36. Suggest what should be done to improve your classroom practice.	

# The End

Thank you for your participation.

(c) Disagree

# RESEARCH QUESTIONNAIRE FOR PUPILS

Dear Respondent,			
		ing questions as honest I for the purpose of this	ly as possible. The information research only.
PART A			
then answer the follo	owing questions		uite well. Think of one and in the blank spaces by writing onses given.
1. Your age		2. Grade	
3. Qualification of y	our teacher:		
(a) Degree	(b) Diploma	(c) Certificate	
4. How long has you	ır teacher been t	teaching you?	
(a) years	(b) I d	lon't know	
			pared to other teachers.
PART B			
Tick ( $$ ) the correct	response from	the choices given.	
6. My teacher uses e	xplanations mo	stly as s/he teaches	
(a)Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
7. My teacher uses g	roup work mos	tly as s/he teaches	
(a) Strongly agree	[]	(b) Agree	[]

[ ] (d) Strongly disagree [ ]

8. My teacher uses qu	estion and ansv	wer mostly as s/he teac	hes
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
9. My teacher uses ro	le play mostly a	as s/he teaches	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
10. My teacher uses d	liscussions mos	tly as s/he teaches.	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
11. My teacher adequ	ately prepares	for lessons	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
12. My teacher has ac	lequate knowle	dge of his/her subject	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
13. My teacher enjoys	s explaining a l	esson without involvin	g pupils
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
14. My teacher uses to	eaching and lea	rning aids for almost a	ll lessons
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]

15. My teacher spend	s time correctin	g pupils' work while in	n class
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
16. My teacher encou	rages creativity	and free thinking	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
17. My teacher comp	lains of our clas	ss being too big	
(a) Strongly agree	[]	(b) Agree	[ ]
(c) Disagree	[]	(d) Strongly disagree	[]
18.My teacher encoun	rages pupil and	teacher interaction in o	class
(a) Strongly agree	[]	(b) Agree	[ ]
(c) Disagree	[]	(d) Strongly disagree	[]
19. My teacher rewar	ds pupils for ac	tive participation in cla	ass activities
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
20. My teacher gets u	pset when critic	cized by a pupil during	lessons.
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]
21. My teacher prom	otes pupil acad	emic freedom in class.	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	[]

22. My teacher has f	irm control on j	pupils	
(a) Strongly agree	[]	(b) Agree	[]
(c) Disagree	[]	(d) Strongly disagree	; []
PART C			
Fill in the blank spa	ces by writing y	your answer for the que	estions.
most?			would make pupils learn
materials when teach	hing?	n why your teachers pr	refer explaining lesson
25. According to you	u, explain what	is bad teaching?	
		lessons most in class?	
27. In your opinion,	suggest what yo	ou feel is good teaching	g: 

## The End

Thank you for your participation

## APPENDIX "C"