

**IMPLEMENTATION OF GEOGRAPHY FIELD PROJECT IN ZAMBIAN  
HIGH SCHOOLS: A SURVEY OF LIVINGSTONE AND MONZE OF  
SOUTHERN PROVINCE**

**BY**

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fulfillment of the requirements  
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## DECLARATION

I, Kasonde Mundende, do hereby solemnly declare that this dissertation represents my own field research and that it has not previously been submitted for a degree at this or another University. All Maps, tables and figures except for those whose sources may have been acknowledged, are original.

Signed:..........

Date:..... 30<sup>TH</sup> NOVEMBER 2007 .....

**APPROVAL**

This dissertation of Kasonde Mundende is approved as fulfilling part of the requirements for the award of the degree of Master of Education in Geography Education by the University of Zambia.

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## **ABSTRACT**

The New Zambian High School Geography Curriculum (NZHSGC) that was launched in the year 2000 by the Curriculum Development Centre (CDC) of the Ministry of Education (MoE) carried with it a new component called the field project. The reason for proposing a field project was that the geography which was taught in schools then was just theoretical, text-book based and left pupils with little knowledge of their local areas. In addition, it effectively alienated the learners from their environment instead of imparting greater awareness of the same in them (Ntalasha *et al* 2004).

In view of these concerns, this study evaluated the implementation process of the Geography Field Project (GFP) in six Zambian High Schools (ZHS) in the Southern Province of Zambia. The study investigated views, beliefs, attitudes as well as feelings and challenges experienced by Grade 11 and 12 pupils taking geography. It also sought the views of geography teachers who taught the new component of the field project, school managers and the MoE officers respectively.

This study was very largely qualitative hence the use of research questions only rather than hypotheses. The questions used were: (a) What problems did teachers and pupils face in implementing geography field project in ZHS? (b) What should be the professional and academic qualifications for teachers of geography handling geography field project in ZHS? (c) What should be the specific geographical skills for a teacher handling a geography field project? (d) How equipped are the ZHS in terms of relevant geography field project?

The research aimed at bringing out practical challenges experienced by stakeholders in order to equip them with necessary solutions to each concern. The study also sought to establish how each respondent group alleviated practical problems that were encountered in implementing the project.

The main objectives of this study were: (a) To establish the problems teachers and pupils faced in implementing the project, (b) To find out the extent to which geography field project stakeholders were meeting the basic conditions in the implementation of the geography field project in ZHS as stated by authors such as Tilbury and Williams (1997) (eds) and AMSS (1958).

This study employed descriptive and evaluative study design approaches to get different views, beliefs, attitudes and perceptions about the implementations of the project among different respondents.

Although the NZHSGC was launched in the year 2000, the project component has not yet yielded satisfactory results because of various reasons. These included (a) inadequately trained teachers in project related courses (b) lack of appreciation of field projects by education administrators at different levels (c) unfavourable socio-economic, natural and environmental factors. (d) inadequate resources and (e) time for mounting field projects.

To alleviate some of the challenges and experiences during the implementation of the geography field project in ZHS this study recommends

that the Government of the Republic of Zambia (GRZ) through its appropriate wings should provide adequately trained teachers in project related courses and also remunerate teachers who handle the field project. In addition, the (GRZ) should centralize the marking of the project reports at national level by inviting all teachers involved at one place to minimize the delay and missing of reports.

## **DEDICATION**

This work is dedicated in precious memory to my late Father Jackson Mwenya Chifuta Mundende, my late mother Monica Lombe Mangu and my late wife Pamela Nang'ombe Hambwalu.

*Mwe batemwikwa*, I wish you were around. Whatever I am, I owe to God and to your initial firm, inspiring and loving foundation.

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## **ACRONOMYS**

AMSS:	Assistant Masters in Secondary Schools
CDC:	Curriculum Development Centre
ECZ:	Examinations Council of Zambia
EMREB:	East Midland Regional Examinations Board
FNGLEW:	First National Geography Curriculum in England and Wales
GFP:	Geography Field Project
GRZ:	Government of the Republic of Zambia
MoE:	Ministry of Education
NEAREB:	North East Anglian Regional Examinations Board
NWSEB:	North Western Secondary Examinations Board
NEP:	National Educational Policy
NPE:	National Policy on Education
NHSG:	New High School Geography
NZHSGC:	New Zambian High School Geography Curriculum
PTC:	Primary Teaching Certificate
SESO:	Senior Educational Standard Officer
SEREBE:	South East Regional Examinations Board of England
UNESCO:	United Nations Educational Scientific Organisation
ZEP:	Zambia Educational Policy
ZHS:	Zambian High Schools

## **CHAPTER 1 INTRODUCTION AND BACKGROUND**

### **1.1 Introduction**

Fieldwork is an important component of any subject. From the geographical point of view, it should be understood that:

*“Geographies are written records of original field investigations. If there is any virtue in the study of the subject (of Geography), part of this is lost if the children do not themselves carry out some of its fundamental processes. Much if not most raw material of Geography is the surface of the land” (Long and Roberson 1966:128).*

Fieldwork in general may entail going out and exploring possibilities around you. It is an ‘out door’ work or a technique based on learning directly or by direct observation and deduction (Warntz 1964, UNESCO 1965, Debenham 1963, Lambert and Balderstone 2000, and Hanna et al 1966). As in any other subject, fieldwork in Geography entails the same principle of learning through direct observation. Namafe (1986:23) notes that, “fieldwork in local issues can provide active learning experiences for pupils who may be given the opportunity to experience and record the feelings held by others for the environment”.

Ntalasha et al (2004:219) define a field project as “the study of a significant topic or problem in the field where the learner is actively involved in the collection of information, processing and analyzing it before preparing a report”. The main implementers of geography

field project in a Zambian High School (ZHS) setting are teachers, pupils, school administrators and policy makers (that is, the MoE).

Studies all over the world have been carried out to identify what is essential for a successful geography fieldwork. For example, Tilbury and Williams (eds) (1997) and AMSS (1958) from British schools point of view outline safety, financial contribution from both parents and the school authorities, teacher-pupil ratio, teacher qualifications and experience, adequate allowance of the component on the school time-table as some of the conditions which should be met. These conditions are socially, economically and environmentally driven.

Fieldwork in most schools worldwide emerges as a central theme in curriculum planning in that it integrates theory and practice. In Geography, fieldwork is an activity that provides pupils with experiences, knowledge, understanding of skills such as observation, collection, recording, interpreting and assessing of data (Manda et al 2002, Tilbury and Williams (eds)1997 and UNESCO 1965). Geography field projects have been widely carried out in secondary schools in many parts of the world, but not in Zambia. They “involve children in a series of investigations where the results are arrived at through active participation in acquiring knowledge stimulated and guided by fundamental geographical disciplines” (Archer 1972: 9).

In advancing the concept of geography field project in the Zambian Geography Curriculum, the MoE through its wing, the CDC in the year 2000, launched the geography field project as a component of geography carrying 12 per cent of the final examination marks. The main objective of incorporating the project into the ZHSGC was to address the observations made by various people that the teaching and learning of geography in Zambia had been too theoretical and text-book based. It was felt, therefore, that introducing field project into the curriculum would add satisfaction to the teaching and learning of geography because it would, among other benefits, break the monotony and boredom that existed in the coverage of the geography curriculum (CDC 2000 and Ntalasha et al 2004).

Field project which engages pupils in learning directly, among many other things, can be very motivating, enjoyable and desirable because it provides experiential learning which should be encouraged in a scientific world. It brings out reality in the study of geography, it generates interest in pupils and brings about their awareness of resources and problems of the local area. It turns keen geography teachers into seasoned professionals and provides them with opportunities to write local geography text-books (Lambert and Balderstone 2000 and Ntalasha et al 2004).

It had been argued that the theoretical and text-book based way of teaching and learning of geography in Zambia left many pupils with

little and limited knowledge about their local environments which they were supposed to protect, nurture and sustain. Furthermore, geography with emphasis on the study of foreign lands had effectively alienated the learners from their environment instead of inculcating greater awareness of the environment in them. Field project influences positively on the rest of a pupil's work. It also creates and increases interest for geography (Ntalasha et al 2004, Manda et al 2002, AMSS 1958 and Long and Roberson 1966).

The field project has been running in ZHS since the year 2002. The first group of ZHS pupils to write a report on various geographical topics of their own choice was the 'graduates' of the year 2004. By implication, the projects have been written for three consecutive years namely 2004, 2005 and 2006. Grade 12 candidates are expected to submit their written project reports to the Examinations Council of Zambia (ECZ) by 31<sup>st</sup> October every year. If this was not done, the affected candidates were not eligible to sit for the rest of the geography examination papers (CDC 2000). In other words, the field project component is compulsory and so all geography candidates at high school level have to take it. Teachers in ZHS were expected to begin teaching this component in Grade 10. This would prepare pupils with processes and skills of doing fieldwork before they embarked on serious project report writing especially in Grade 12.

## **1.2. Statement of the Problem**

Since inception of the geography field project into Zambian geography curriculum about six years ago, there had never been any study conducted focusing wholly on the same. Habowa's (2006) study investigated only a few aspects of a geography field project, but did not go into the details which the present study went: (readers are referred to pages 29 to 31 of this study for details). Lack of such a focused study created and left only scanty information for the key stakeholders to work with. Furthermore, there had never been any evaluation of the geography field project since its inception. The present study, therefore, wanted to address these gaps.

## **1.3. Purpose of the Study**

The purpose of the study was to address the gaps that Habowa's (2006) study did not address in the study of the implementation of the geography field project. It was also intended for evaluation purposes because such a focused study had not been done before in ZHS. The study was done with a view to coming up with possible solutions to assist stakeholders to combat the social, economic and environmental issues in the implementation process of the field project.

## **1.4 Objectives**

The following were the specific objectives of the study:

1. To establish the problems teachers and pupils faced in implementing geography field project in ZHS.

2. To ascertain the qualifications and experiences of teachers of geography handling geography field project in ZHS.
3. To find out the extent to which geography field project stakeholders were meeting the basic conditions in the implementation of the geography field project in Zambian High Schools as stated by authors such as Tilbury and Williams (eds) (1997) and AMSS (1958).
4. To find out the availability of relevant geography field project resources in ZHS.

### **1.5 Research Questions**

The following research questions were posed:

1. What problems did teachers and pupils face in implementing geography field project in ZHS?
2. What should be the professional and academic qualifications for teachers of geography handling geography field project in ZHS?
3. What should be the specific geographical skills for a teacher handling a geography field project?
4. How equipped are the ZHS in terms of relevant geography field project resources?

### **1.6 Significance of the Study**

This study was significant and worthy investigating. In the absence of adequate and reliable official data about the implementation process of geography field project in ZHS, the findings of this study should provide the initial value and guidance to relevant

authorities to militate against any flaws that were unearthed during the study.

Since a detailed study of this nature in Zambian teaching methods has not been done before, it is hoped that new grounds could be provided for the beneficiaries that include the CDC, ECZ, teachers and learners. The CDC may find the findings of the study very beneficial in that they might know what they need to include or eliminate in the design of the geography curriculum and its relevant teaching methods as regards the field project.

Since the ECZ plays a greater role in the marking and the grading of the project, the study may help them in designing guidelines for the marking scheme. The ECZ would then use such guidelines during teachers' meetings/seminars in order to improve marking standards.

For the teachers of geography, the research findings showed strengths and weaknesses of the geography field project component in order to improve the teaching of geography. There is a possibility that the findings of this study may help both teachers and pupils to increase their skills and enthusiasm, especially to those who have shown little or no interest in the teaching and learning of geography. In the absence of adequate written guidelines, teaching and learning strategies for geography field project, the findings in this study may provide guidance especially to teachers who are inadequately trained in the modern techniques of handling geography field project.

### **1.7 Limitations of the Study**

The researcher restricted the study to only two districts in the same province. The findings may not give a complete picture of the high schools in Zambia, though the samples selected, to a larger extent, represented the type of high schools found in the Zambian setting. The researcher intended to deal with Grade 12 pupils only, but met a challenge at two schools namely Lwengu and Chikuni girls. The two schools had fewer pupils in Grade 12 to meet the required sample of 30 pupils. This, however, was compensated by some sampled Grade 11 pupils who were doing the same things in as far as the field project activities were concerned. The other limitation was failure to retrieve some questionnaires from one school manager and two pupils. But this number was too small to affect the findings of the study.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In spite of the scanty literature dealing specifically with the teaching of the geography field project in ZHS, there is adequate literature that addresses geography fieldwork in general and various ways of implementing it successfully. This chapter is organized under the following broad areas: (a) General overview of fieldwork, (b) basic expectations and techniques in the implementation process of the geography field project, and (c) problems and challenges in the implementation of the geography field project.

##### **2.1. General overview of field work**

Taylor (ed) (1951:396) views geography as “primarily a field study dealing with the surface of the earth, and the features and phenomena which are associated with it”. He adds that such a study involves three principal processes namely “observation, recording and interpretation” (Ibid:396). According to Taylor, field work can be done in natural areas, rural areas and urban areas (Ibid). He further observes that it is inevitable that children learn to observe their own environment.

According to UNESCO (1965:39), fieldwork is a “geography teaching technique based on direct observation”. Referring to the British schools then, UNESCO (1965:39) observes that, “fieldwork or

'outdoor' is now considered an essential part of any geography course". UNESCO adds that:

the value of the direct observation method lies in that it shows pupils how to observe accurately various facts and it makes them critical of sweeping generalizations such as may some times be found in certain text-books. Emphasis is made that the technique of obtaining geographical information by direct observation is fundamental to the subject and that no teacher of geography can afford to dispense with the technique (Ibid1965:73).

What UNESCO may imply here is observing directly brings about accuracy in various facts making them critical of sweeping generalizations as certain books state. It is inevitable by all geography teachers to conduct fieldwork.

Hanna et al (1966) expounding on Taylor's (1951:396) thought on field work suggest that children should be encouraged to observe local environmental geographical features directly from their initial stage. This in turn might help them understand that geography deals with life in reality. Hanna et al (1966) believe that as children dig deeper beneath the earth's surface, they will get answers to their questions.

According to Long and Roberson (1966), fieldwork is the study of landscape where children go exploring on their own, while their teacher is their mentor and guide. Referring to how geography was learnt through field local study, Long and Roberson (1966) believed Geography should be learnt through walking across the landscape,

where they should be able to analyze, and possibly explain the landscape. Long and Roberson (1966:6,7) maintain that,

training in field work offers children a deeper understanding of their cultural heritage and opportunity to obtain later richer experiences during their leisure. Field work offers occasions for healthy outdoor work, and gives town children very necessary knowledge of the country.

The authors believe fieldwork remains the most valuable method that helps an average child improve the subject study and also to understand and appreciate his or her local environment.

Fieldwork has been part of the British schools' syllabus since 1920. Long and Roberson (1966) emphasize that "the main argument for the inclusion of some fieldwork in the school syllabus is that nowadays fieldwork is an integral part of the subject. Much if not most of our materials of geography is the surface of the land" (Ibid:128). Long and Roberson (1966) argue that, fieldwork is able to straighten map reading ability for pupils because most of the fieldwork is recorded on maps. Fieldwork to a greater extent makes geography a reality for children and it helps an average child improve the subject study.

Gospill (1966:14) subscribes to Taylor (1951:396) that, "the techniques of the geographer are employed in observing, recording and analyzing the evidence of the changing world-scene the very substance of geography is constantly on the move". The author believes that, in observing, recording, and analyzing children are

being equipped with skills to have an 'eye for the country' in order for them not miss important phenomena. What this may entail is that it is cardinal to have an opportunity to train in disciplined geographical investigations and that should not be missed.

AMSS (1967) observe that there should be an inclusion of fieldwork at each stage in both schools and colleges courses whose ultimate aim is to give a description of the patterns and relationships of the landscape. In fieldwork, authors emphasize that children must be encouraged to acquire a critical mind for the area under observation.

Gospill (1974:256) subscribes to Hanna et al's (1966) views that, "fieldwork is where the candidate learns how to observe and assess evidence of geographical significance and to record the results". This helps a pupil to relate what is on the actual grounds to what was learnt in the classroom. Gospill (1974) advises that ample time and wide range of topics should be given to pupils.

Nick Foskett writing in Tilbury and Williams (eds) (1997:190), define fieldwork as "any activity that takes place outside the confines of the classroom which provides pupils with experiences, knowledge, understanding or skills that are part of the geography curriculum". They maintain that, "fieldwork provides the opportunity to apply ideas generated in the classroom to the real world to test hypotheses by empirical methods and to learn new knowledge and concepts from first hand observation" (Ibid:189).

Lambert and Balderstone (2000) subscribe to Tilbury and Williams (eds) (1997:190) that, the whole essence of fieldwork is to engage pupils in direct contact with the landscape. This is one of the disputable attributes of geography education.

The aim of fieldwork according to Tilbury and Williams (eds) is to acquire deeper understanding of geographical phenomena on the landscape. Furthermore, pupils may apply intellectual skills to correctly interpret the features they observe.

According to Lambert and Balderstone (2000) children should be exposed to both physical and human geographies phenomena if they have to have a complete picture of the earth's surface. This underscores the aspect that geography is of physical and human nature and both should be addressed if answers to questions faced by each component can be found.

Manda et al (2002:iii), reiterating Tilbury and Williams' (1997) (eds) understanding of fieldwork observe that, " It is regarded as an integral part of geographical studies". They explain further that this "means that what is studied in the classroom should be related to the real world outside the classroom" (Ibid:iii). There should be a close relationship between what is studied in the classroom and what is on the ground.

## **2.2. Basic expectations and techniques in the implementation process of the geography field project**

There are various expectations and techniques in implementing the geography field project.

### **a) Teacher preparation for fieldwork**

Taylor (ed) (1951:398) commenting on what is expected of teachers as they facilitate in fieldwork suggests that, “every geographer should have a field knowledge of at least one of the natural sciences in addition to his geographical training”. He adds that, “under our present system we have very few teachers with the training or inclination and practically none who are permitted the time to take a class into the field” (Ibid:399). Education has been imprisoned in the classroom resulting in a negligence of the environment. It has never been easy to get permission to take pupils out for fieldwork because many people, geographers inclusive, do not see that need, thus the classroom confinement, which is not complete.

UNESCO (1965:50) expounds on Taylor’s (1951) observation that, “the teacher must be absolutely clear as to what he wants to do and as to the purpose of the exercise”. This means that the teacher must set his or her objectives right at school before undertaking any fieldwork. This includes visiting in advance the area to be visited.

According to UNESCO (1965), it is gratifying to see the results of a carefully carried out fieldwork through endurance and

persistence on the part of the pupil and consistence and encouragement on the part of the teacher.

Hanna et al (1966) emphasize that, the teacher is duty bound to help the children draw field sketches of the landscape features from an elevated observational point, and have them note the spatial relationships on the observed phenomena.

Commenting on how equipped the teacher on field trips should be AMSS (1967) observe that, the leader must be clear in his mind what features pupils should look for in the field and also the time it should take for such a field excursion. This is only possible if the teacher walked such a landscape before.

Commenting on the role of the teacher as one of the basic expectations in the successful implementation of field project Archer (1972:10) notes that, “the role of the teacher is that of a guide and helper in this matter”. He advises that:

The role of the teacher is vital in being the coordinator of the various sections of the project. Often the teacher has to be the innovator of ideas but his role should become surbordinate to that of the child. But it should remain the teacher’s responsibility to provide the stimulation of the interest, and to guide his pupils into the exciting world of exploration and discovery (Archer 1972:11).

In other words, the teacher should not override the individual search by each pupil but to facilitate through encouragement and by leading pupils into exciting explorations.

From the administrative point of view Gospill (1966) observes that there are issues pertaining to insurance, traveling as well as

catering, which the teacher should sort out before venturing into field work. This is also part of the needed organization.

Nick Foskett writing in Tilbury and Williams (eds) (1997:195-6), expounds on Gospill's (1966:155) views as regards the organization of fieldwork, on what the teacher is expected to do, when he observes that, "the fieldwork location and task must be pre-visited and tested to assess the practical aspects of the task, safety, and organizational arrangements". They also say that, "comprehensive planning is essential for safe and effective fieldwork. The importance of planning in ensuring that the quality of teaching, the quality of learning and the standards of achievement of pupils is optimized in the classroom is widely stressed, but in the field the increased risk makes this process *sine qua non*"(Ibid:195).

Lambert and Balderstone (2000), on the organizational aspect, add the dimension of each school coming up with a policy on fieldwork, so that nothing is left to chances. The authors add that, "the geography teacher has to apply considerable high-level geographical skills of interpretation, before starting to address the question of how to arrange things so that young and inexperienced pupil geographers can learn to do the same" (Ibid:28). They further admonish that, the teacher must be sharp with a critical perception, the attributes he or she should impart in pupils.

## **b) Follow-ups**

On follow-ups as another basic expectation in fieldwork, Long (1964:79) notes that, “any field course should have some follow-up work afterwards. Field note books will have been written up at the time, and there will have been discussion on the spot of the matter studied”. Follow-ups help to tie notes together.

Gospill (1966) in agreement with Long (1964) observes that on returning to school the leader and pupils together should in a constructive manner emphasize the findings during their fieldwork, which may include photographs taken, maps and diagrams drawn.

AMSS (1967: 237-238), subscribe to Gospill’s (1966) view on what follows when the fieldwork is done that it includes the completion, maps, transects, diagrams or other sections which were not properly written in the field in readiness for presentation.

Archer (1972: 34) on the issue of follow-ups advises that:

After the completion of the project it is necessary to carry out a critical re-appraisal of the whole scheme. Teachers are often reluctant to do this, but without such an analysis there can be no strong foundation on which to progress.

What Archer observes is that progress is dependent on the teacher and pupils reviewing what they underwent in the field.

## **c) Communications**

Long (1964:77) identifies communication as one of the basic expectations to the successful implementation of field project when he says that, “parents should be kept informed, particularly that pupils

at times will be working independently in groups". Communication to parents embraces many facets, financial implications inclusive.

Long (1964) considers the aspect where teachers communicate to their pupils correct information, and also a measure of their power to observe and interpret correctly what lies on the earth's surface.

He adds that, "a detailed set of administrative instructions about clothing, food, equipment; passport requirements, foreign exchange, journey times, and meeting points should be provided" (Ibid).

Long (1964:79) considers communication with various parties especially those who will play a party in such a field excursion. Such may include contacts with the person in-charge of the area to be visited.

Lambert and Balderstone (2000) advise that things such as the purpose of the trip, cost, any special equipment, timings, (when to leave and return), a reply slip where the parent/carers gives consent should be communicated to parents/carers for the child to be taken out of school.

#### **d) Safety**

Long (1964:77) commenting on safety as one of the basic expectations to a successful implementation of field project advises that, "The leader should cover himself against the risk of claims by parents. The legal responsibility of the teacher is a special subject, but membership of most proper moral associations gives cover and

they can be consulted for details.” Referring to British Schools Long says that, “the local education authority’s regulations on schools parties should also be studied. These can vary considerably from area to area”. This means that each authority should come up with its own policy that suits that particular environment.

Long and Roberson (1966) advise that efforts should be made to affiliate with professional bodies in matters relating to safety. The authors emphasize that fieldwork should not be characterized by tragedy. Therefore, every precaution should be made to protect the team on fieldwork.

**e) Teacher-pupil ratio**

According to AMSS (1967) and referring to British Schools, on teacher-pupil ratio they say that the Local Education Authorities require a staff/pupil ratio of 1 to 20 in the field. They emphasize that where it is a class of boys and girls, there would be a need for a male teacher and a female one for easier supervision. Help may be sought from older pupils, geography prefects or other higher forms or grades.

Lambert and Balderstone (2000:29) expand on AMSS (1967) on advice as they get acquainted with school journey. “Make sure you fill it up. The law states 1:20 for 11-16 in UK most schools try to take more. Is this feasible?” The understanding is that this ratio is quite challenging to the ones supervising.

**f) Fieldwork mark allocation**

Archer (1972:42) highlights mark allocation to course work on fieldwork when he compares the following British regions:

NEAREB allocates 331/3 % of the total marks to course work. Part III of the exam calls for an assignment which may include project work." He adds that, " SEAREB award 20% of the total marks for practical assessment. Candidates will be expected to have shown evidence that a personal study has been made of the natural environment, or of the human activity affecting life in a particular environment (for example: industries, building communications, agriculture, fishing, etc.)"(Ibid: 43, 44).

Archer further says: "EMREB allocates 25% of the total marks to course work, which could include one or more projects, each dealing with a geographical subject. The work would be presented in a note-book or folder and there would be an oral test" (Ibid:44).

As for NWSEB, Archer(Ibid) says that, "each candidate should submit course work and this section carries 30% of the total marks. Two pieces of work are called for: i) individual investigation (ii). Study of chosen topic" (Ibid: 44).

SREB allocates 20% of the total marks to course work. Candidates are allowed to choose a topic of interest for their course work. (Ibid: 44). Archer notes that, "it is pointed out that the topic should involve some reading, a survey of an area or possibly an extended journey with some objective. The principle remains that the

work must be done by the pupil with the teacher acting merely as a guide”(Ibid: 45).

The SEREB allows, “the submission of project work which should not exceed 2,000 words and should include maps, diagrams, and illustrations in addition to modeling. Course work will carry 15% of the total examination marks” ( Archer 1972:45).

On the Zambian scene, the mark allocation and number of words have been tagged to the field project as well. “Candidates will be required to write a field project report, which will carry 12 % of the total marks for the subject” (CDC: vii). As regards the number of words, the ECZ (2003:6) states that, “...The investigation should involve a series of activities including:-presentation report (give limit e.g. 1500-2000 words) based on the candidate’s type of fieldwork”. Mark allocation in these various regions indicate the importance of fieldwork.

#### **2.4. Problems and challenge in the implementation of geography field project**

There are many problems and challenges in the implementation process of the geography field project.

##### **a) Permission for fieldwork**

Taylor (ed) (1951:399) identifies the challenge of getting permission to take a class into the field when he observes that, “the value of having school children learn to observe the patterns of their environment cannot be overestimated- yet under our present system

we have very few teachers with the training or inclination-and practically none who are permitted the time to take a class into the field". He identifies this to be a common challenge when he says "we, hear the same cry from our friends in natural sciences such as botany and zoology- education has been imprisoned in the classroom with a resultant neglect of the environment" (Ibid:399,400). This borders on the understanding of the importance of fieldwork by the authority that be to willfully allow a team to go out for excursions. Lack of understanding creates such resistance.

Long and Roberson (1966:124) referring to British schools then, subscribe to Taylor's (1951) view that, "today school fieldwork is still conducted by a minority of enthusiasts, and hazard an estimate that at least half of the secondary population leaves without having made any significant contact with geographical study outside the classroom". They observe further that, "the geography teacher in addition to considerable organizational work has to persuade the head and colleagues that the work is justified. In practice much if not most of the field work developed in schools since the war has been done on voluntary basis during out-of-school time. Many teachers have for years devoted a substantial part of their vacation to leading large school parties on carefully organized field excursions" (Long and Roberson 1966:132). What this implies is that due to restrictions that go with fieldwork, much of it is done outside the normal school timing.

## **b) Accuracy in recording**

Warntz (1964) on the aspect of taking notice of what is observed as a challenge noted that any movement made should not be wasted but should be such which should make one discover something new regardless of how many times one has traveled that way. This is a challenge in the sense that people do not take note of details whenever they are moving. The author adds that every travel by a geographer should not be hurried if it has to be meaningful.

Chorley and Haggett (eds) (1965:187) reiterating the words of Geikie (1905:296) on the power of observation as one of the possible challenges have this to record that “the deficiencies of literary methods’ could be overcome by cultivating the faculty of observation”. They add that, “everyone was not equally endowed with this faculty and that training was required so that the student could see much more in the world around him ‘than is visible to the uninstructed man” (Ibid).

UNESCO (1965) as regards the importance of accuracy admonishes pupils to observe accurately various facts which should help them make critical generalizations which will be worthy to live by.

According to Archer (1972:9,10), accuracy of recording is a challenge to pupils. He observes that, “parallel to the skill of observing must be the ability to record accurately the facts that have been discovered. This aspect is often the weakest part of a pupil’s

topic work". He expands that, "unless help is given pupils can experience difficulty and they are often perplexed by the problem of how to record the findings" (Ibid). Pupils can come out with such inaccuracies in recording if they are trained properly by their teacher. Archer maintains also that accuracy should equally be observed in the condensation of prose passages, summarization of articles, preparation of maps and diagrams and recording in the field.

### **c) Originality of the work**

Commenting on the originality of work as a problem to pupils Archer (1972:15) observes that:

Originality of work must be the fundamental principle and children should be guided towards this aim. Far too often children present projects which are warmly praised but on inspection the work proves to be an exercise in reading and copying sources. When this occurs the educational aim of the work has been severely devalued.

He adds that, "the same care and attention which was applied to the gathering and sifting of information must be applied to the presentation of the material. It is a common failing for pupils to present their work in a slipshod way" (Ibid: 32). The advice Archer gives in coming out of this problem is to help pupils plan their project in sections and chapters showing a sequence of activities and development. This includes the aspect of hand-writing and the coherence in the presentation.

### **d) Time consuming**

AMSS (1967:212) identify yet another challenge of fieldwork being perceived as time consuming. They observe that, "some

Geography masters feel that they cannot conscientiously afford adequate time for fieldwork. After all, they argue, it demands much careful study and even research on their part, as well as room in a syllabus already strained to the limit." They however, advise that, "every pupil should have a minimum of one full day's fieldwork per year, although many teachers like to take junior forms on for one day a term" (Ibid: 213). The authors add that, "it should be a regular time-tabled feature, otherwise good fieldwork habits are not established"(AMSS, 1967:213). Unless fieldwork is time-tabled, it becomes quite a challenge for individual teachers to create time.

Lambert and Balderstone (2000:26) expand on AMSS (1967) when they report that, "fieldwork cannot be taken for granted. It is often under threat because it is mistakenly considered to be unnecessary luxury which disrupts pupils' progress in other subjects whose lessons they miss when they are out of school".

Gospill (1966:155) has this to say as regards fieldwork, "much time, trouble, and expense is involved and it is as well to get the maximum educational return". Unless quality time and funds are spent on fieldwork, the yield is not progressive.

Commenting on the importance of time-tabling the field work period, Archer (1972:31,32) recommends that, "from the normal time-table periods allocated to the subject one double period should be utilized for topic work".

He further advises that, “the discipline of topic work for individual research beyond the confines of the classroom and a pupil interested and absorbed, would be very keen to carry on with his task at home as part of his homework assignment”(Ibid:31). According to British Schools then, Archer (1972:31) observes that, “the most appropriate period for each topic is the six-to-seven week period before or after half-term. The completion of the topic in the half-term period does not put a certain degree of pressure on the pupils’ work rate but there is the satisfaction of seeing the completion of the topic.”

#### **e) Failure to see ‘Big picture’ of fieldwork**

Long (1964:60) put it this way that, “Geography is an explanatory science. It is vital that this exploratory spirit should pervade geography teaching and that, whether in fact or in imagination, the pupils should ‘go and look’ for themselves and later; of course, interpret and understand”. This means a pupil should see beyond the actual excitement that goes with fieldwork. What matters is the achievement of the set objectives. He adds that, “geography worth the name is above all realistic. How better to meet these requirements than by actual field work on the part of the pupils themselves?” (Ibid: 60). Long (1964:61) maintains that,

“it is the task and the privilege of teachers to pass on to their pupils a measure of their power to look at a landscape and to see the skeleton below, to recognize the process and the stages which have helped to form it, and to appreciate the relationship of the palimpsest. ...which man has imposed upon it to the natural aspects which have conditioned that varied

and complex process”.

UNESCO (1965) advises that what is required is for the teacher to convince his pupils about the purpose and meaning involved in their fieldwork. UNESCO further advises that, children should be assisted to observe certain facts of the landscape. In seeing a big picture as a challenge, UNESCO (1965:50) writes that, “Nothing is more frustrating and time wasting than to take out a party of children on fieldwork if they regard the proceedings as a holiday outing. On the other hand nothing is more satisfactory than to see the result of carefully carried out fieldwork”.

Archer (1972:14) explains it this way that “pupils must be given guidance and training on how to explore and discover knowledge.” He further observes that, “informal discussion between child and teacher will keep the pupil to become critical of his own resources and develop a sense of evaluation as well as learn from the discussion on the specific visual aid being considered”.

Lambert and Balderstone (2000:28) identify the difficulty for pupils to see the ‘bigger picture’. They observe that, “one challenge in this genre of field investigation is to keep the geography whole. Although pupils may learn a lot about techniques in relation to specific elements of geography, they may find it difficult to see the ‘bigger picture”.

### **f) How to encourage children to go for fieldwork**

According to Lambert and Balderstone (2000:5) they note that, “but even when we have the geography straight and have worked out a route for enquiring, there remains a third challenge”: “how are we to encourage and enable pupils to respond individually, to the field experience in a way that allows feelings to be expressed towards nature, places , landscapes?” This challenge borders on the attitudes of both teachers and pupils. With positive attitude fieldwork is exciting and meaningful to geographical discoveries.

### **g) Material arrangement**

Archer (1972:42) identifies yet another challenge which he writes that,

It is the selection and arrangement of material that pupils experience the most difficulty: In the writing-up of their work the importance of skeleton cannot be stressed too strongly or there is the danger that the project becomes a scrap-book.

He adds that, “The quality of the work will be judged by the skill used in the integration of the maps and pictures with the text” (Ibid: 42).

### **h) Introducing children to fieldwork**

Archer (1972:9) in trying to explain on what should be done to attract children into fieldwork suggested that, “children of all ability-levels enjoy the opportunity to tackle a task that they help to conceive, develop and work through and finally see completed. It gives that sense of satisfaction which is experienced by all

contributors". He adds that, "projects involve children in a series of investigations where the results are arrived at through active participation in acquiring knowledge, stimulated by interest and guided by fundamental geographical disciplines" (Ibid). All the problems and challenges highlighted above are not only common in the western world, in particular in British schools, but also in Zambia. Chapter 4 of this study presents and discusses these challenges in detail.

Lambert and Balderstone (2000:28) note that, "introducing pupils to fieldworking is a particularly demanding challenge for geography teachers and is therefore best done in terms." They advise that, "The geography teacher usually has to apply considerable high level geographical skills of interpretation, before even starting to address the question of how to arrange things so that young and inexperienced pupil geographers can learn to do the same"(Ibid).

From the Zambian scene, Habowa's (2006) study, looks at the Evaluation of the implementation of the New Zambian High School Geography in general, of which geography field project was a fraction. This study goes into greater detail discussing the geography field project.

Habowa (2006) briefly addressed four major areas, especially in the challenges experienced in conducting the geography field project, namely:

- (a) High schools' geography teachers' views on the field component and the challenges of conducting the field project by Geography teachers.
- (b) Aspects of the field project component in which pupils found difficulties according to teacher respondents.
- (c) Pupils' views about the project component on one hand and the aspects of the field project perceived to be difficult by pupil respondents.
- (d) The teaching/learning resources required to be used in the geography field project component.

Habowa (2006) did not go into details on the geography field project. This study does. For instance, he did not address some of the cardinal basic conditions such as pupil-teacher ratios, the national policy on the safety and insurance of pupils and teachers as they go out on field visits as well as the role of school managers and MoE in the successful implementation of the project.

Furthermore, Habowa (2006) did not go into detail to provide possible solutions to what this researcher calls the social-cultural, economic as well as environmental and natural problems faced by pupils, geography teachers, school managers and MoE (see Appendix 7). These areas are adequately addressed in this thesis.

In addition, Habowa (2006) considered only high schools of rural Zambia. This study covers both rural and urban Zambia as well as how the project has been handled in co-education schools, GRZ

schools, technical schools, private schools, single sex schools and indeed in grant-aided schools on comparative basis.

Habowa (2006) however, justifies the qualification of some teachers who had some PTC qualifications to teach at Chalata High School in M'kushi, stating that the school had just been up-graded. To the contrary, this study argues otherwise.

This study further addresses aspects of geography teachers who sometimes occupy roles of examiners, moderators and markers which Habowa (2006) did not address.

This study has given relatively more detail on Habowa (2006) than other authors partly because, on the Zambian scene, his study was the first to qualify to the M.Ed (Geography Education) degree programme. Therefore, it was felt important that a clear record of what Zambian geographical education researchers said about field project is preserved for future investigators.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter covers the following: (a) study design, (b) research instruments, (c) target population, (d) sample and the sampling procedure, and (e) data processing and administration of research Instruments. It also shows part of the raw data collected during the study. Each component is discussed separately below.

#### **3.2 Study Design**

This study employed descriptive and to some extent evaluative design approaches. Besides being descriptive and evaluative in nature, it was also quantitative and qualitative in design. It was descriptive in that it brought out subjective experiences and views of pupils, geography teachers, school managers and the MoE officials. It was evaluative in nature in that the researcher made some critical assessment of how the basic conditions (cf Tilbury and Williams (eds) (1997) were being met in ZHS. Besides, it sought to establish whether the project was a viable component in the school curriculum.

It was largely qualitative in nature, thus the use of research questions only rather than hypotheses. The quantitative design aspect came in due to some computations which were done to quantify some collected data. This was because certain responses and all objective responses were quantified in form of percentages and

numbers. It was as well qualitative in design in that subjective views from respondents were recorded as they presented them and also the preference of research questions to hypotheses.

### **3.3. Research Instruments**

The researcher used four different research instruments as reflected in Appendices 1-4. Appendix 1 dealt with pupils whilst Appendix 2, was administered to teachers. Appendices 3 and 4 were administered to school managers and MoE officials respectively (see pages 95-113). He further used an interview schedule which targeted geography teachers only as presented in Appendix 5 (page 114). The research instruments were employed to collect primary data. These were in form of semi-structured interview schedules. The semi-structured interview schedules which consisted of subjective, objective and affective questions were used as research instruments to collect primary data. Some of the questions in the research instruments used were closed while others were open ended.

### **3.4. Target Population**

The sampled population was 199 respondents. This number comprised 180 pupils. Out of this number 154 were Grade 12 pupils while 26 were Grade 11 pupils. There were supposed to be twelve teachers of geography, who were handling geography classes, but only eleven teachers managed to respond because Chikuni Girls, had only one teacher of geography handling all geography classes from Grade 8 to 12. The other group of respondents comprised six school

managers, though only five took part in the study. The last group was made up of MoE geography specialist officials from CDC, ECZ, and the Livingstone Provincial Office. This brought the final target population group to 199 respondents. Grade 12 pupils were selected purposively to give detailed data of their long experience in field project since their Grade 10.

Livingstone and Monze districts were purposively selected because they had the type of schools needed for the study. The two districts are serviced by the GRZ (that is, Hillcrest Technical, Linda, and Monze Boarding), grant-aided (that is, St. Raphael's and Chikuni Girls) as well as private sectors ( that is, Lwengu). Teachers, school managers and MoE officers were used to confirm and clarify some observations that were raised by pupils.

The use of Grade 11 pupils at Chikuni Girls and Lwengu Schools to make up for the required 30 respondents was appropriate in that there was no much difference in terms of work coverage by both Grade 12s and Grade 11s in these schools. The other reason was that both groups were handled by the same teacher and also that they had started learning about the field project component, doing the same things at the same time except that Grade 12s were to submit their written reports by 1<sup>st</sup> November, 2006 according to the ECZ guidelines.

### **3.5. Sample and Sampling Procedures**

Six schools out of 36 were purposively chosen. Three high schools were chosen from Livingstone district and the other three from Monze district (see Appendix 6, page 117) for High Schools in the Southern Province and figure 1, page 38 for the areas of study). From Livingstone, the schools chosen were Hillcrest Technical, St. Raphael's and Linda. From Monze, the schools chosen were Monze Boarding, Lwengu and Chikuni Girls. Hillcrest being the only Technical School in the district and with the highest number of degree holder teachers in geography was chosen in order to establish how field projects were being handled in such a school. St. Raphael's was chosen to represent grant-aided schools for boys. Linda, being one of the oldest co-education government schools was also chosen. Monze Boarding was chosen for being not only a boarding school, but also a co-education government school. Lwengu which is also a co-education school was considered to represent private schools. Chikuni was chosen to represent grant-aided schools for girls. Since this was a survey, six schools from two districts were deemed adequate.

The sampling procedure was done in the following categories: Hillcrest Technical, Linda and Monze Boarding, had four Grade 12 classes each whereas St. Raphael's had two Grade 12 classes only.

Chikuni Girls and Lwengu had only one Grade 12 class each with 15 and 19 pupils respectively. For Chikuni and Lwengu schools, the balance to make up for 30 respondents were sampled from Grade 11s.

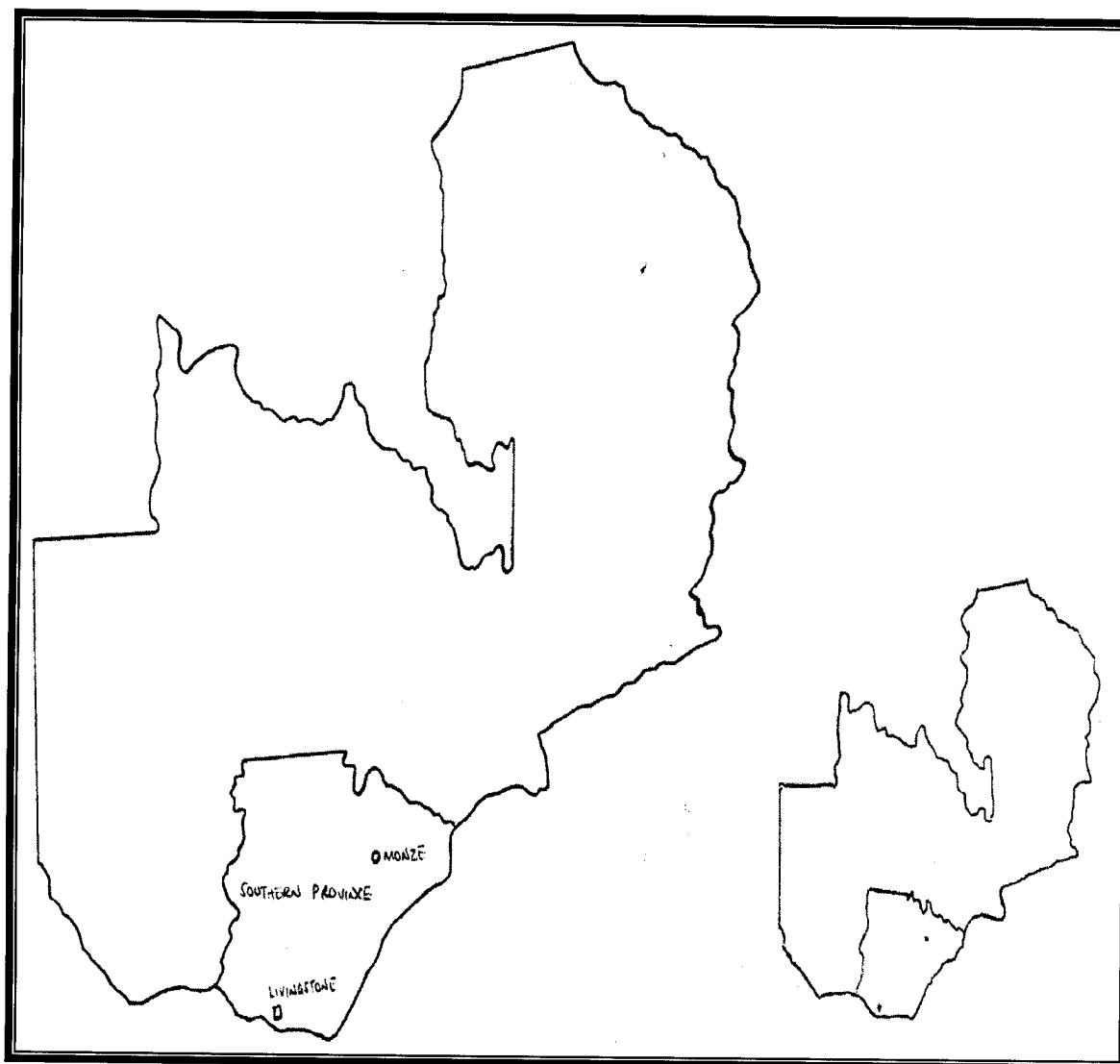
The lottery technique was used to select the required number of pupils from each school. Each school provided two sets of class lists for each grade which had already been serialized. One of the class lists from each school was cut into small pieces and the other was not to preserve the serial numbers. For example, St. Raphael's, had two Grade 12 classes namely 12A and 12B. The class list which was cut for St. Raphael's for 12A class was given the labels 1A, 2A, 3A, 4A, up to 30 A. Those from 12B were given labels 1B, 2B, 3B, 4B, up to 30B. The researcher thereafter, put all the labeled pieces of paper in a box. Two independent pupils who were not doing geography from other senior grades were randomly picked to help in picking the 30 would-be respondents. The box was thoroughly shaken and then the two pupils took turns in picking the serial numbers from the box. After every draw, the researcher shook the box thoroughly well until 30 serial numbers had been picked. The researcher together with the pupils who helped in picking the serial numbers from the box, matched the other numbers with the class list which had not been tampered with to align the numbers so as to get the actual pupils represented by the drawn numbers. In instances where the picked number was for a pupil who was transferred or absent on that particular day, the box was again thoroughly shaken to allow the

pupil who was picking the numbers to draw again. This was done successfully at all schools with the co-operation of heads of social sciences and also geography teachers.

To ensure the suitability, validity and reliability of the drawing and the matching of the drawn serial numbers with the actual names of the pupils, teachers of geography who were handling the classes sampled were consulted to confirm the presence or absence of such pupils. Thereafter, the researcher went back to the classes involved and called out the names of such pupils. The pupils called out were the ones who were administered to by the researcher in a separate room.

As for teachers, the heads of social sciences chose those they felt could handle the given task appropriately. Two teachers were appointed from each school and one from Chikuni Girls. As for school managers only five were administered to. The other three came from the MoE, geography specialists at CDC, ECZ, and a SESO from Livingstone Provincial office. CDC are the curriculum developers in the country, while ECZ, are the recipients and custodians of the reports or scripts that constitute 12 per cent of the total marks in geography. SESO at provincial level was used because that is the office that monitors the teaching of geography in the province. Standard officers deal with the teaching standards, including the project component.

**Figure 1. Map of Zambia showing the areas of study**



Source: New Basic School Resource Atlas for Zambia (2004: 8)

Key ○ Monze District

□ Livingstone District.

Details of the actual number of teachers in the sampled schools are given in Table 1 below. The report below presents a table and a

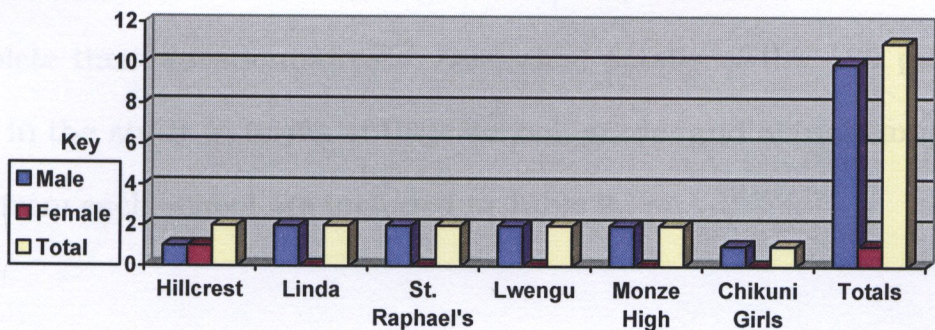
graph together in some few cases in order for readers to have a clearer graphic picture of the data than where only a table is used.

**Table 1: Geography teachers and their gender according to schools**

Name of the Sec Sch.	Male	Female	Total
Hillcrest Tech School	1	1	2
Linda	2	0	2
St. Raphael's	2	0	2
Lwengu	2	0	2
Monze High Boarding.	2	0	2
Chikuni Girls	1	0	1
TOTAL:	10	1	11

**Fig: 2. Geography teachers and their gender according to schools.**

**Numbers**



**Name of the Secondary Schools.**

A semi-structured interview schedule was administered to pupils. Pupils were given objective questions. Other questions were of affective nature (that is, they bordered on attitudes, feelings and beliefs of respondents). There were also questions of a descriptive nature (that is, they bordered on open ended style of expressions). The sample of the research instrument referred to is in Appendix 1. A similar questionnaire (that is, semi-structured research instrument) was administered to teachers, school managers, and the MoE officials (See Appendices 1, 2, 3 and 4 respectively on pages 95 to 113). This mode of collecting data encouraged the respondent to describe his or her own experiences resulting in a detailed and extensive classification of factors at stake (Bless and Higson-Smith 1995 and Cohen et al 2004). All questionnaires given to pupils were collected by the researcher after an average period of 30 minutes. At Hillcrest responses were collected the next day expect that two pupils did not hand in the questionnaires. As for some teachers and school managers, they requested for more time to complete their questionnaires. Statistical details of the 180 pupils used in the study in terms of their school, grade, and actual sampled total from each school are included in Table 2.

**Table 2: Pupils and their Grades according to schools**

<b>Secondary School</b>	<b>Grade 11</b> %= 14.4	<b>Grade12</b> % = 85.5	<b>Totals</b> % = 99.9
Hillcrest Tech	00	28	28
Linda	00	30	30
St. Raphael's	00	31	31
Lwengu	11	19	30
Monze Board	00	31	31
Chikuni	15	15	30
<b>Total</b>	<b>26</b>	<b>154</b>	<b>180</b>

In this study, the main method of gathering data was the use of a semi-structured questionnaire. Apart from the semi-structured questionnaire an interview schedule was also administered to the teachers who were involved in handling classes which were doing field projects. The interview schedule is included under Appendix 5. It was used for collecting data for various reasons. Despite being costly in terms of time and money, interviews proved to be an effective method of data collection through direct verbal interaction between individuals. It provided opportunities for asking questions that measured knowledge, values, preferences, attitudes and beliefs of people (Bless and Higson-Smith, 1995 and Cohen *et al*, 2004).

The researcher also inquired on the availability of resources and materials used to help in carrying out the geography field project

successfully. Nothing much was displayed except the famous New  
Zambian High School Geography text book, which was published later  
after the project had already started. That seemed to be the main  
and common source of information for pupils. For uniformity's sake,  
the researcher gave all the guidelines needed to the pupils. He  
administered the instruments to make sure that pupils were not  
intimidated by their teachers and also to clarify any difficulties pupils  
would have encountered if they were to do it on their own. This also  
helped to minimize pupils leaving blanks on certain items because  
those who were stuck asked for further clarity. In the case where the  
head of department of the social sciences collected responses from  
pupils, independent expressions were still manifested by such pupils,  
an indication that there was no manipulation and intimidation from  
teachers. Before administering the instruments, the items and other  
relevant concepts of the instruments were discussed with the  
researcher's supervisor, some geography teachers and specialists.  
Furthermore, pilot testing was done at Rusangu Secondary School in  
Monze to test the reliability, validity and sustainability of the research  
instruments. It was after this thorough discussion and consultations  
that the number of items in some cases was reduced while in other  
cases they were increased.

### **3.6. Data Processing**

Data collected were analysed quantitatively and qualitatively. A content analysis of the responses was used. This study is written using various themes such as professional qualification of teachers teaching field project. Statistical information which was later described and analysed was also finally given in tables as shown in various sections of this document.

### **3.7. Administration of research instruments**

The administration of the study began in February 2006 and ended in September 2006. As already alluded to on page 40 an average of 30 minutes was given to pupils to respond to the items and thereafter the researcher collected the completed instruments. To minimize the skipping of some items on the instrument, the researcher after collecting each instrument from the pupil(s) browsed through and if there was any space left blank, the affected pupil was asked to complete it. The thematic system of analysis was used in this study.

#### **Why using a survey approach?**

The researcher used a survey type of study because, as Cohen et al (2004) indicate, surveys gather data at a particular point with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events.

Despite having weaknesses, survey studies generate numerical data, and provide descriptive, inferential and explanatory information. The studies also generate accurate instruments through their piloting and revision, they gather data which is processed statistically. Furthermore, survey studies make generalizations about the findings. They also gather standardized information (that is, by using the same instruments and questions for all participants). They ascertain correlations (For example, to find out if there is any relationship between gender and scores). They capture data from multiple choice, closed questions, test scores or observation schedules (Cohen et al 2004 and Dunn 1999).

## CHAPTER 4

### PRESENTATION AND DISCUSSION OF RESULTS

#### 4.1. Introduction

This chapter presents results and their interpretation from all the respondents. The researcher adopted the style of combining both the presentation of results and their interpretation within a single chapter to assist readers to easily see the flow of ideas.

One of the items on the pupils' questionnaire was to know their gender and Table 3 has details of how many male and female pupil respondents participated during this study.

**Table 3: Sex pattern of pupil respondents**

<b>Sex</b>	<b>Male</b>	<b>Female</b>	<b>Totals</b>
<b>Number</b>	114	66	180
<b>Percentage (%)</b>	63.3	36.7	100

Table 3 shows that 63.3 per cent representing 114 pupils were male, whereas 36.7 per cent representing 66 pupils were female. These results show that the majority of the respondents were male pupils as compared to female ones. One of the contributing factors to this extreme difference between male pupils and female pupils perhaps has to do with the enrollment pattern in ZHS. Generally, there are more male than female pupils and the GRZ is aware of this enrollment gap (MoE 1996). This, however, does not have any

significant effect on the results because the respondents were sampled in an unbiased manner. Furthermore, high schools such as St.Raphael's is a boys' school whereas, Monze Boarding had more boys than girls, thus, contributing to the high number of males. Linda like any other remaining high school had more boys than girls at the time of research.

Another item that the pupils' questionnaire addressed was whether geography was one of their favourite subjects. Table 4 gives the details in terms of numbers and percentages of pupil respondents on whether geography was one of their favourite subjects or not.

**Table 4: Rating of geography amongst subjects according to schools**

<b>School</b>	<b>Geography Favourite</b>	<b>Geography not favourite</b>	<b>Totals</b>
Lwengu	15	15	30
Hillcrest	28	00	28
Monze Boarding	30	01	31
Linda	27	02	29
St. Raphaels	26	05	31
Chikuni	27	03	30
<b>Totals</b>	<b>153</b>	<b>26</b>	<b>180</b>
<b>Percentage (%)</b>	<b>85 %</b>	<b>14.4 %</b>	<b>99.4 %</b>

Table 4 shows that 85 percent representing 153 pupils rated geography as their favourite subject as compared to 14.4 per cent

representing 26 pupils who did not perceive it as being their favourite. One representing 0.6 per cent did not take any position at all. This indicates the fact that the implementation of the field project in ZHS can be successful because the majority of pupils liked the subject. As for 26 pupils who indicated that geography was not their favourite subject, they cited few challenges. Such challenges included the fact that the geography curriculum was still broad-based because it included components on human, physical and economic. The other challenge was the claim by pupils that geography was not taught properly by some teachers.

Hillcrest Technical School pupils recorded a one hundred per cent liking for geography. This was followed by Monze Boarding school who had only one pupil indicating that geography was not one of his/her favorite subjects. Lwengu, had fifty per cent of the pupil respondents who indicated that geography was not their favorite subject. From these findings, it can easily be deduced that pupils in a Technical school have a higher liking for geography as compared to any other school under this study. However, when it came to field excursions, Lwengu and St. Raphael's had the highest frequency among all the six schools in as far as taking pupils out for field excursions were concerned (for details, see Tables 4 and 5).

**Table 5: Frequency of field excursions by pupils according to schools**

<b>School</b>	<b>Number of pupils taken</b>	<b>Number of pupils not taken</b>	<b>Totals</b>
Lwengu	21	09	30
Hillcrest	02	26	28
Monze Boarding	03	28	31
Linda	02	28	30
St. Raphaels	29	02	31
Chikuni	03	27	30
<b>Totals</b>	<b>40</b>	<b>140</b>	<b>180</b>
<b>Percentages(%)</b>	<b>22.2 %</b>	<b>77.8 %</b>	<b>100 %</b>

The researcher also wanted to find out whether pupils were taken out for field excursions during the previous terms. The results in Table 6 have details of the responses on whether pupils were taken out for field excursions during previous terms or not.

**Table 6: Field excursions undertaken by pupils in previous terms**

<b>School</b>	<b>Number of pupils taken</b>	<b>Number of pupils not taken</b>	<b>Totals</b>
Lwengu	21	09	30
Hillcrest	02	26	28
Monze Boarding	03	28	31
Linda	02	28	30
St. Raphael	29	02	31
Chikuni Girls	03	27	30
<b>Totals</b>	<b>60</b>	<b>120</b>	<b>180</b>
<b>Percentages (%)</b>	<b>33.3 %</b>	<b>66.7 %</b>	<b>100 %</b>

Results presented in Table 6 show that 66.7 per cent representing 120 pupils had never been taken out for any field project since their Grade 10 when they had started the fieldwork. To confirm what the pupils stated as shown in Table 6, Table 7 shows teachers responses on whether they had taken their pupils out for field excursions at the time of study or not.

**Table 7: Field excursions undertaken by teachers with pupils**

<b>Teacher response</b>	<b>Number of teachers who took pupils out on field excursions</b>	<b>Number of teachers who did not take pupils out on field excursions</b>	<b>Totals</b>
<b>Number</b>	7	4	11
<b>Percentage (%)</b>	63.6	36.4	100

Results presented in Table 7 show that, 36.4 per cent representing four teachers had never taken their pupils out for any field project. A number of reasons for not taking their pupils for field work excursions were given. One of the reasons was that there was little time to do that. One respondent said that, "I have been dealing with other components of geography. I have never taken pupils out for field excursions but I explain processes and procedures to them. Pupils have to go out on their own for field data collection". The other reason was that teachers concentrated on the theory part and hoped to do the field project during the next school terms. This arrangement, unfortunately, left both the teachers and the pupils with only two terms to do the field excursions and for the pupils to submit their project reports. This did not give pupils enough time to practice and experience to come up with high quality reports. This prompted

some teachers and pupils during the interview to propose separate periods for the field projects outside the schools' master time-tables. The failure to take pupils out for field project excursions defeated the purpose and the emphasis that there was no other subject in the curriculum so large an open air subject as geography and that field work provided a geographical laboratory world outside the classroom as propagated by authors such as (AMSS 1958;1967, Chorley and Haggett 1965, and Lambert and Balderstone 2000). This led to the teachers' suggestion during the interviews that at least two separate periods would be needed for the field project as compared to leaving it to individual teachers or schools to use their initiative. One respondent said, "I need at least a slot on the school time-table: twice in a month on a time-table can do". Teachers suggestions could be valid in that it is a common practice that as long as one was not bound to some fixed timing on their school master time-tables, it would be difficult to create time outside the normal schedules.

If geography pupils were not exposed to the fieldwork experiences, part of the objectives for launching the New High School Geography Curriculum in the year 2000 in Zambia, which emphasizes issues such as enabling learners acquiring skills, knowledge, values and attitudes that will make them to be functional members in a changing world may not be attained (CDC 2000). In addition, the pupils would not appreciate the basic geographical character of the local environment because they initially lacked appreciation of a

geographical nature brought out from man-environmental relationships (CDC 2000 and MoE 1996).

The component of the field project in the NHSGC was a response to Zambia's educational policy which emphasizes preparing pupils for the conclusion of life in school and the commencement of adult life (MoE 1996). The failure to expose pupils to fieldwork experiences would further dilute the purpose of the implementation process of the NHSGC which puts some emphasis on the field project.

As alluded to in the background, geography, for a long time was perceived as a boring, theoretical and text-book based subject, thus, the incorporation of the field project broke the boredom, theoretical and text-book based way of teaching the subject (Ntalasha et al 2004, Manda et al 2002 and CDC 2000). This therefore, calls for all stakeholders to execute the project component with the seriousness it deserved.

The fact that field project adds value to the geography curriculum should not be underestimated. According to the findings of this study, the project reports that were written by pupils at the end of their Grade 12 added satisfaction to the teaching and learning of geography, motivation and exploration in nature and creation of a face to face encounter with reality. They also made the subject of geography to be a real life oriented subject. These findings are in agreement with what authors like Lambert and Balderstone (2000), Manda et al (2002) and Tilbury and Williams (eds) (1997) emphasized

when they observed that learning in the field was enjoyable and desirable. The research findings of this study further indicate that field project provided pupils among other things with the understanding of geography more as compared to the pupils experience in their classroom' confinement. It further helped them to acquire different geographical skills and also improved their interest in geography as a subject. From the teachers' point of view, it broadened their scope in knowledge about the procedure of carrying out field research. It also gave them a clue on how pupils were writing reports which helped them to gain different ways of approach to field projects. Furthermore, it helped them to be prepared so as to give some definite guidance to pupils.

The contribution of the field project to the geography curriculum as revealed by the findings from the MoE showed that the field project, provided linkages of school based assessment with public examinations which involved practical skills. The MoE further observed that field project were more pupil centered as compared to the way the curriculum was designed before which was more of teacher centered. The MoE further observed that field project had other benefits which included exposing children to local analytical real life situations. These findings from the MoE officials, confirm what Ntalasha et al (2004) and Manda et al (2002) outlined as benefits.

Results revealed that St.Raphael's Secondary School (Livingstone) had only two pupils (that is, 6.4 per cent) who indicated

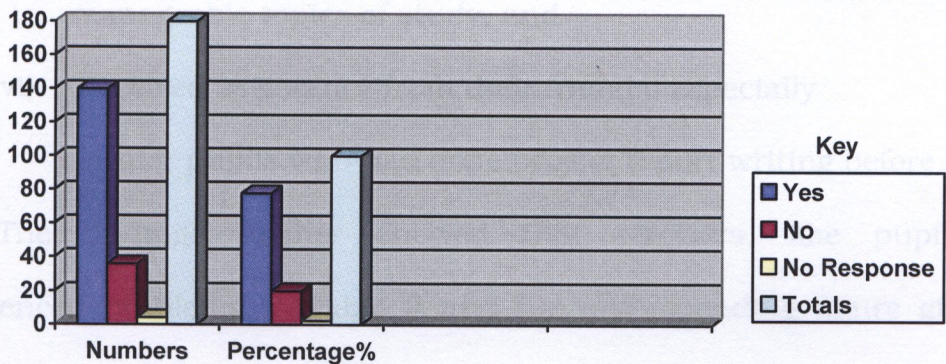
that they had not been taught geography from outside the classroom. At Lwengu, only nine pupils claimed not to have been taught from outside the classroom. The rest of the schools under study had less than five pupils each, who indicated that they had been taken out for field projects. This means Hillcrest, Linda (Livingstone) and Monze Boarding and Chikuni Girls (Monze) had the highest number of pupils who had not experienced field excursions at the time of the research. These results show that pupils in a private school and a boys' Grant-Aided mission school were more exposed to the field project excursions than those at a Government school and at a girls' Grant-Aided mission school. In terms of frequency, the findings showed that Lwengu Secondary School had taken pupils out for as many as four times a year. This means that pupils at a private school were more exposed to field excursions than any other school under study (refer to Table 6).

The researcher also wanted to find out whether pupils experienced problems in implementing field project. The results in Table 8 and the corresponding figure present the responses from pupils on whether they experienced problems in implementing field project or not:

**Table 8: Problems experienced by pupils in implementing field projects**

Response if problems were experienced	Yes	No	No response	Totals
Numbers	140	36	4	180
Percentage (%)	77.8	20	2.2	100

**Fig. 3: Problems experienced by Pupils in implementing field projects**



The findings of this study established that the high schools under study experienced varied problems in the implementation process of the field project. These problems ranged from economic, social-cultural, physical and environmental (refer to Appendix 7). As Table 8 indicates 77.8 per cent representing 140 individual pupils stated that they faced problems as regards the carrying out of the field project. However, only 20 per cent representing 36 pupils indicated that they had not yet experienced problems at the time of the

research. Twenty per cent of those who indicated that they did not experience problems advanced reasons such as they had:

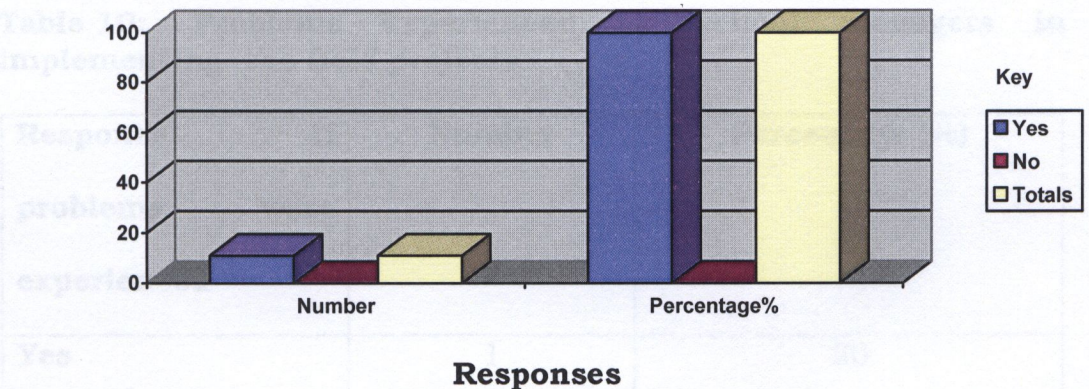
- i) Not yet known what was involved in field projects because they had not been taken out by their teachers,
- ii) Proper guidance from their teachers,
- iii) Enough related materials on research work which they ever referred to whenever they got stuck,
- iv) Created in themselves self motivation and they had practiced more,
- v) Known the appropriate study areas to go to and also manageable topics of study, and
- vi) Received assistance from their friends, especially former pupils who had done project report writing before.

The findings further showed that teachers, like pupils, experienced problems. Table 9 and the corresponding figure give data on whether geography teachers experienced problems in implementing field projects or not.

**Table 9: Problems experienced by geography teachers in implementing field projects**

Response if problems were experienced	Number	Percentage (%)
Yes	11	100
No	0	0
Totals	11	100

**Fig. 4: Problems experienced by geography teachers in implementing field projects**



The findings presented in Table 9 and its corresponding figure show that all the teachers indicated that they had experienced problems in the implementation process of the field project. Geography teachers' commonest problems in implementing the geography field project included the challenge to encourage and enable pupils respond individually to the field experience and to convince their school managers about the importance of the field

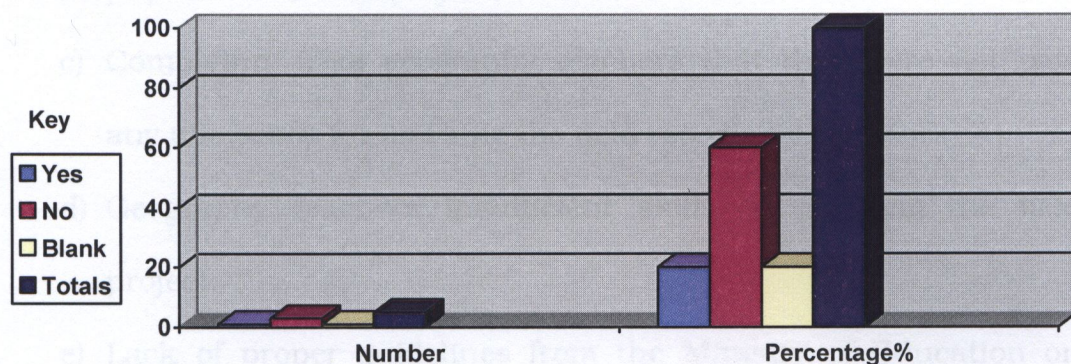
project in geography for them to consistently support its cause. This challenge was equally observed by Lambert and Balderstone (2000) when they stated that it was difficult to encourage and enable pupils to respond individually , to the field experience. They also indicated that they did not have enough time, since the field project component was not scheduled on the school time-table. The other major problem was that they observed 'sub-standard' report writing by pupils.

Like pupils and geography teachers, school managers also experienced their own problems in implementing the field project. Table 10 and its corresponding figure give details on whether they experienced problems in implementing the field projects or not:

**Table 10: Problems experienced by school managers in implementing the field projects**

<b>Response if problems were experienced</b>	<b>Number</b>	<b>Percentage (%)</b>
<b>Yes</b>	1	20
<b>No</b>	3	60
<b>Blank</b>	1	20
<b>Totals</b>	5	100

**Fig. 5: Problems experienced by school managers in implementing field projects**



### Responses

The results presented in Table 10 and the corresponding figure show that one school manager experienced problems as compared to three school managers who indicated that they had not yet experienced problems. The school managers who had not yet experienced problems said that they depended on their geography teachers teaching the field project component, and that they facilitated in so many ways where possible. Findings of this study as indicated in the Tables 8 and 9 and their corresponding figures, leave, create an impression and confirm what authors like Lambert and Balderstone (2000), Archer (1972) and Long (1966) emphasized with regard to the reality of varied problems though they do not classify them as economic, social-cultural, natural and environmental, in the implementation process of the geography field project in high schools.

The problems experienced by school managers included the following:

- a) The local community prohibited pupils to carry out some studies especially on HIV/AIDS and prostitution,

- b) The local community's attitude of not easily accommodating the pupils on the field project,
- c) Complaints from geography teachers that they were not paid any allowance for marking the field reports by the MoE,
- d) Geography teachers insufficient skills in teaching the field project,
- e) Lack of proper guidelines from the Ministry of Education on how to successfully implement the geography field projects, and
- f) Lack of full knowledge by the local community on the importance of the field projects.

The researcher also wanted to find out whether the MoE experienced problems in the implementation of the field project. Results presented in Table 11 give the responses whether they experienced problems in implementing the field project or not:

**Table 11: Problems experienced by the Ministry of Education in implementing the field projects**

<b>Response if MOE experienced problems</b>	<b>Number</b>	<b>Percentage (%)</b>
<b>Yes</b>	2	66.7
<b>No</b>	1	33.3
<b>Totals</b>	3	100.0

Results presented in Table 11 indicate that 66.7 per cent representing two-thirds of the MoE officials experienced problems. They further show that 33.3 per cent representing only one-third of

the MoE official did not experience problems. The problems experienced included:

- a) Results for the project reports were not sent on time as per ECZ Guide lines,
- b) Local communities were not giving pupils adequate information,
- c) Geography teachers did not have ample time to give guidance to pupils,
- d) Non-provision of appropriate field project resources to high schools on regular basis,
- e) Resistance from school managers on the use of school resources such as transport for field trips on regular basis, and
- f) Frequent field visits by pupils made the local community uncomfortable and at times not accommodative. This challenge was highly reflected by pupils, geography teachers as well as school managers' responses.

On comparative basis the researcher wanted to find out how the high schools under study fared with regard to the problems they experienced. Table 12 shows the number of students who experienced problems.

**Table 12: Number of pupils that experienced problems in carrying out field projects according to high schools**

<b>School</b>	<b>Number of Pupils who experienced problems</b>	<b>Sample no. of pupils in schools</b>
Lwengu	16(53.3 %)	30
Hillcrest	21(75.0 %)	28
Monze Boarding	23(74.2 %)	31
Linda	26(86.7 %)	30
St. Raphael's	30(96.8 %)	31
Chikuni Girls	24(80.0 %)	30
<b>TOTALS</b>	<b>140</b>	<b>180</b>

St.Raphael's secondary school stood out with the highest number where 30 pupils out of the total of 31, giving 96.8 per cent, stated that they experienced problems. Only one pupil indicated that he did not experience problems. Linda had 26 pupils, giving 86.7 per cent who indicated that they had experienced problems while Chikuni Girls had 24, giving 80.0 per cent. As for Monze boarding 23 pupils giving 74.2 per cent indicated that they had experienced problems while Hillcrest had 21 which gave 75.0 per cent. Lwengu had 16 pupils, giving 53.3 per cent who indicated that they had experienced problems. The numbers shown in Table 11 above are alarming and all possible measures should be put in place as suggested in some

sections ahead and in Appendix 7, if the implementation of the geography field project has to be successful in Zambian High Schools.

The findings presented in Tables 8, 9, 10, and 11 regarding the problems experienced in implementing the geography field project are quite so high that if not addressed appropriately, would seriously impede on the successful implementation of the field projects. The results of 77.8 percent from pupils, 100 percent from geography teachers, 20 per cent from School Managers and 66.7 per cent from the MoE reveal that all these stakeholders experienced economic, social-cultural, natural and environmental problems (refer to Appendix 7) in the implementation process of the geography field project in Zambian high schools. However, concerted efforts are needed from all stakeholders to quickly address each of the problems indicated above

#### **4.2. Professional qualification of teachers teaching field projects**

On the qualification of teachers of geography handling geography field project, information gathered through the heads of departments and sections revealed the following: At the time of study, a good number of teachers were in possession of Secondary Teachers' Diploma especially from Nkrumah Teachers' Secondary College (now Nkrumah Teachers College of Education). Linda high school (Livingstone) was manned by diploma holders only. St Raphael's high school (Livingstone) had two Diploma holders and only one degree holder. Hillcrest Technical high school (Livingstone) had all the

teachers with at least first degree qualification(s). In Monze district the trend was not very different. Chikuni Girls was manned by a diploma holder only. The other teacher with first degree was reported to have gone out for the second degree. From Lwengu high school, the teachers interviewed were degree holders. Monze Boarding high school had both diploma and degree holders.

The “traditional” understanding of educational guidelines for those who should teach in high schools in Zambia (that is, from Grade 10 to 12) should be at least those with first degree attainment. All those with diplomas especially from Nkrumah, COSETCO and Chalimbana were meant to handle junior classes (that is, from Grade 8 to 9 as enshrined in the *Zambian Educational National Policy, ‘Educating Our Future’, MoE (1996)*. This however, has not been the practice in many of our Zambian high schools:

“In theory, Nkrumah and Copper-belt graduates teach in Grades 8 and 9, University graduates teach in Grades 10-12, and graduates from NRDC and Evelyn Hone in Grades 8 to 12. In practice, because of shortage of University trained graduates, especially in Mathematics, Science and English, Diploma-holders from Nkrumah and the Copper-belt colleges may be required to teach Grade 10-12 classes (MoE 1996:111).”

The researcher’s findings on the professional qualification from the six schools under study as described above show that it is not only in Mathematics, Science and English where diploma holders are requested to teach at senior level, but they are also requested to teach geography. This picture obtaining in the high schools is contrary to the guidelines as provided by the MoE, (MoE 1996). It may be one of

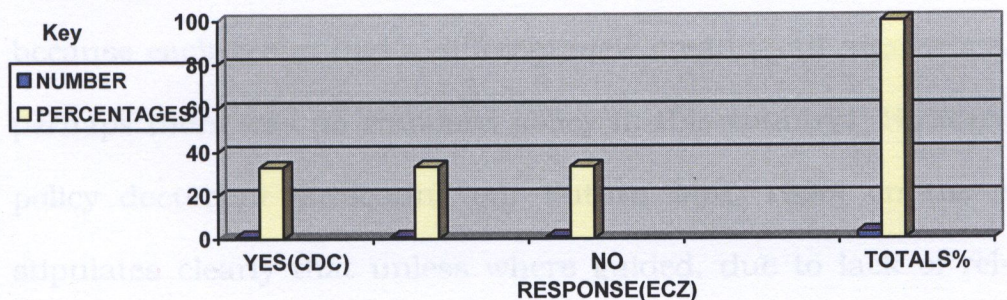
the contributing factors to a number of problems alluded to earlier that are faced by pupils. For instance, the use of the two year diploma holders to handle the higher grades which they were never prepared for. Furthermore, some of the teachers neither attended a ten-day orientation workshop conducted by Messrs late Simukoko and Mweemba from the School of Education-University of Zambia (Lusaka) nor the five-day National Social Sciences workshop conducted by the Ministry of Education at River Motel in Kafue, from 11 to 15<sup>th</sup> December, 2005. As Habowa (2006) indicated in one of the chapters regarding the interview he had with late Mr Simukoko, who was the coordinator for the ten-day workshop, only few teachers attended. The researcher's findings confirmed that none of the respondent geography teachers attended any of the meetings, implying that they started teaching the field projects without any background information.

One of the items the researcher wanted to find out was the position of the MoE officials on the professional qualification of teachers handling field projects. Table 13 and the corresponding figure show the results of whether the MoE officials were aware of a national policy on professional qualification for teachers handling field projects or not:

**Table 13: MoE’s awareness of the national policy on the professional qualification for teachers teaching field projects**

Response/Office	Number	Percentage (%)
Yes (CDC)	1	33.3
No (SESO)	1	33.3
No response (ECZ)	1	33.3
<b>Totals</b>	<b>3</b>	<b>99.9</b>

**Fig. 6: MoE’s awareness of the national policy on the professional qualification for geography teachers teaching field projects**



Results presented in Table 13 and its corresponding figure show that CDC officer indicated that there was a Government policy on the professional qualification of teachers who were to handle senior classes. The policy was that one should possess a first degree qualification. On the contrary, the SESO officer from Livingstone Provincial Education office, said that, he was not aware of the policy but was quick to point out that any one who had done any orientation in the field project would teach. However, he preferred teachers in possession of at least first degree to those who did not have any. It is believed that at degree level, teachers do a lot on the field excursions,

trips, visits and report writing. That being the case, degree holder teachers could handle geography the field project component successfully. The latter is more in line with what had been obtaining in the Zambian Education system, where all those in possession of diplomas were encouraged to handle junior classes though in practice as alluded to in this Chapter, page 64, is not what is obtaining in ZHS. The ECZ officer did not take any position. The overall results in Table 13 indicate that the policy implementers are to some extent divided on the qualifications of who should teach at senior level, because each group had a different view creating an impression that perhaps there was no standard policy in this country. However, the policy document 'Educating our Future' MoE 1996) on the same, stipulates clearly that unless where guided, due to lack of relevant personnel only university graduates should teach Grade 10 to 12. Failure to implement this national policy is defeating and demeaning one of the fundamental basic conditions in implementing the geography field project. One of the solutions to this is the upgrading of many diploma holders to the level of first degree. The other one is to attract many school leavers to train as geography teachers at degree level. This may demand much sensitization on the role and value of geography and also make geography an interesting subject.

From the discussion above concerning the qualification of teachers to handle the field project, it is very clear that it is only the Technical school(s) and the Private ones with appropriate personnel

as per the Zambian Educational Policy, 'Educating Our Future', which advises that unless otherwise, University graduates should teach Grades 10 to 12 (MoE 1996). Unless appropriate measures were applied in good time, the implementation of the projects would be difficult.

#### **4.3. Problem of field project report writing**

One other problem experienced in the project work was in report writing. Authors like Tilbury and Williams (eds) (1997) and Archer (1972), emphasize that if the project was not handled with patience and practice, the whole exercise could turn to be a luxury, a bother and a waste of time to both teachers and pupils. Unless help was given, pupils would ever experience difficulties on how to record the findings and also to write up the project. The findings of this study establish that field project is taken for luxury and a waste of time by pupils. Contrary to Lambert and Balderstone (2000) who said that fieldwork could not be taken for granted because it was perceived as luxurious, ZHS teachers did not take field project for luxury and a waste of time. During an interview, one respondent said that, "fieldwork helps to prepare pupils for tertiary education challenges". The other one said, "fieldwork is a very good foundation to those who will pursue tertiary education, and also Non-Governmental Organizations (NGOs) preferred people with research knowledge". Unlike some few ZHS pupils, all the teacher respondents interviewed would like to see the field project component successful.

However, negative attitudes by both teachers and pupils came out strongly as one of the contributing factors to some of the problems and challenges that they experienced. The researcher established that even in schools which were manned by degree holders, some problems were common such as report writing and little or no exposure to field excursions.

The findings by the researcher indicate that some pupils felt their teachers had not done enough to prepare them. Referring to Table 6, the findings show that 120 (66.7%) pupils had not been taken out by early 2006 for any field excursions. This becomes difficult for pupils to know how to collect, code and analyze data, thereby posing a challenge to the implementation process. The absence of the teachers when needed as the pupils indicated was a demotivating factor. The findings supported Archer (1972) who showed that one of the challenges younger pupils faced was their inability to analyze the observed data. The negative attitude towards the project and also lack of special guidance from their teachers were yet other challenges faced by pupils. Pupils found it very difficult to come up with original work in their project writing. They ended up providing work which fell short of the required standards. The same findings showed that 34.3 per cent representing 60 pupils indicated that they did not know how to write the project. One of the reasons stressed was that they were not yet exposed to it. Few of those who indicated that they had managed to do some work on the project gave

reasons such as they read through other previous research findings and that they also had proper guidance from former school leavers.

At Chikuni Girls, pupils bemoaned the fact that they were only exposed to one type of study activity which was agricultural in nature. This apparently had to do with their location namely the country side. This means one could not expect a variety of topics being handled by pupils other than those connected to agriculture. For this reason, duplication of the same projects year in and year out was expected. This demands that the school authorities should assist by providing field trip logistics which include transport to allow pupils see other geographical challenges, for example, mining, fishing, to name but a few as outlined in the NHSGC (CDC 2000). This also sets a distinction between urban and rural setting schools in favor of urban. There is need for teachers to be creative in order to face the challenges as established at Chikuni Girls, because there could be many High Schools in such a dilemma.

Report writing of the project, being the final part of the whole field project component of the geography curriculum, is very cardinal for the high school administration to provide all the necessary help so as to see pupils experience more field excursions before their final write-up.

Geography teachers, who are in charge of the classes in need of writing the report, should provide maximum support to individual pupils. As for the local community, they should be accommodative to

the pupils in spite of their busy schedules. Perhaps, pupils could be encouraged to make appointments with the local community in good time in order to alleviate this problem.

#### **4.4. Availability of geography field project resources**

The findings of this study on the availability of geography field project resources or materials in ZHS indicated that some schools had some resources but others showed that they had nothing. Those who said they had some resources which included equipment, itemized things such as the NHSG text book, computers, personal pamphlets, cameras, tape recorders, magazines, Encyclopedia, atlases, photocopiers, printers, compass and measuring tapes.

After checking through what was referred to as geography departmental library materials, the researcher established that each school had in stock of at least the NHSG text book. Availability of computers in schools was also established but the challenge faced by pupils was the accessibility to the same where they could have their documents typed and printed.

From the researcher's observations and the findings as discussed above, it is very clear that ZHS did not have enough appropriate Geography field project resources at the time of study. It is, therefore, very urgent for the MoE and other relevant authorities to equip the high schools with the relevant materials if the implementation of the project is to be successful. This may need involvement of donors, the local community, appropriate

organizations and individuals. Depending on the NHSG text-book as the only major book may not suffice.

#### **4.5. Experience of geography teachers teaching field projects**

One of the basic conditions in the successful implementation of the GFP is that teachers must have the experience. This experience is in terms of teachers being involved with the ECZ in examining, moderating and marking of the final examinations. Table 14 give details about geography teachers' experience in terms of being examiners, moderators and markers.

**Table 14: Experience of Geography teachers**

<b>Experience</b>	<b>Number</b>	<b>Percentage (%)</b>	<b>Total number of respondents</b>
<b>Examiner</b>	0	0	0
<b>Moderator</b>	1	9.1	1
<b>Marker</b>	10	90.9	10

As presented in Table 14 none of the 11 teachers interviewed was an examiner. In addition, the results show that 9.1 per cent representing one teacher was a moderator and the rest 90.9 per cent representing 10 teachers were markers. The experience of the teacher in this case may lie in being utilized as an examiner, moderator, and indeed as a marker where possible. The longer one remained in each of these roles, the more experienced one became. The number of years one had taught at senior level could also help one to gain some

experience. As the results in Table 13 indicate, a good number of teachers in the areas under study were not exposed to enough experience, especially in terms of moderating and setting (examining) the examinations at school certificate level. The other contributing factor to some of the problems encountered by geography teachers is what is revealed in Table 15 which shows how often they received relevant trainings on field projects.

**Table 15: Frequency on field project training.**

<b>Received once</b>	4	36.4 %
<b>Received twice</b>	0	0 %
<b>Did not Receive</b>	7	63.6 %
<b>Totals</b>	11	100.0 %

Results presented in Table 15 show that 63.6 per cent, representing seven teachers did not receive any training from the MoE and any other relevant authorities on how to teach the field project before they commenced the teaching. These teachers went into teaching the new geography component using their own initiative.

Pupil-teacher ratio is one of the basic conditions in the successful implementation of Geography Field Project. Table 16 gives details on whether geography teachers in ZHS were aware of the policy on pupil-teacher ratio or not:

**Table 16: Geography teachers awareness of pupil-teacher ratio**

<b>Responses to awareness on ratio</b>	<b>Number</b>	<b>Percentage (%)</b>
<b>Yes</b>	1	9.1
<b>No</b>	8	72.7
<b>No response</b>	2	18.2
<b>Totals</b>	<b>11</b>	<b>100</b>

Results presented in Table 16 show that 9.1 per cent representing one teacher claimed awareness of the pupil-teacher ratio and the ratio in place was 15:1 representing 15 pupils per one teacher. On the other hand, 72.7 per cent representing eight teachers indicated that they were not aware of a policy of such a ratio. The remaining 18.2 percent which represented two teachers did not state their position. The figure that has to do with the teachers who were not aware is quite huge implying that teachers were not aware of their limitations in terms of number of pupils each teacher was to handle. This 'loose ends', suggests that a teacher could handle as many pupils as he/she could possibly do. The researcher wanted to know what the teachers felt might be the manageable ratio (refer to Appendix 8). The findings further showed that 36.4 per cent representing four teachers were in the majority, proposed 30 pupils to one teacher. This

was followed by three teachers who proposed the ratio of ten pupils to one teacher. As the results show, the people who handled the field project classes would be comfortable with a ratio of 30:1.

The aspect of unawareness was not only confined to the teachers but to the school managers, as well. Table 17 gives details on whether school managers were aware of the national policy on pupil-teacher ratio or not:

**Table 17: School managers awareness of the national policy on pupil-teacher ratio**

<b>School managers response on pupil-teacher ratio</b>	<b>Number</b>	<b>Percentage (%)</b>
<b>Yes</b>	0	0
<b>No</b>	4	80
<b>No response</b>	1	20
<b>Totals</b>	<b>5</b>	<b>100</b>

Results presented in Table 17 indicate that the majority, 80 per cent which represented four School Managers were not aware of the pupil-teacher ratio. On the other hand, 20 per cent representing one school manager, claimed awareness of the national policy on pupil-teacher ratio. The reasons advanced by the 72.7 per cent and 80 pr cent of geography teachers and school managers respectively for

not being aware of the policy under discussion included issues such as that:

- a) CDC had not been open to schools on the field project and the ratio inclusive,
- b) High Schools had more pupils than teachers thereby creating a problem on maintaining a common ratio,
- c) Zambian high schools had different capacities in terms of number of pupils as well as teachers,
- d) Change to incorporate the field project occurred without the real assessment of its effects, and
- e) Project was new in the curriculum.

The reality of having so many key stakeholders not being fully aware of what should govern them as regards pupil-teacher ratio poses a serious concern to the successful implementation of the field project. For instance at the time of research, one teacher respondent was handling 135 pupils in the field projects where as the next one one was handling 82. The least was handling 17 pupils. By ratio these were as follows: 135:1, 82:1, and 17:1. Lambert and Balderstone (2000:29) when commenting on the teacher ratio of 1:20, in terms of supervision, in some UK schools, as a law, ask a question, "Is this feasible?" If it cannot be feasible for this UK ratio, can it be feasible for a Zambian teacher who has 135 pupils to supervise in

field projects? The MoE may assume all is well and going in the right direction, yet not, just because pupils at the end of their Grade 12 submit their project reports. The researcher further found out from MoE officials what their position was on the same ratio. Table 18 presents the results on how each MoE official responded on the same.

**Table 18: MoE's awareness of the national policy on pupil-teacher ratio**

<b>MoE's response on pupil-teacher ratio</b>	<b>Numbers</b>	<b>Percentage (%)</b>
<b>Yes (CDC)</b>	1	33.3
<b>No (SES0)</b>	1	33.3
<b>No response (ECZ)</b>	1	33.3
<b>Totals</b>	<b>3</b>	<b>99.9</b>

As the results show in Table 18 there were distinct differences in the responses from the MoE officials whereby each third, (that is, 1 (33.3%) of the total respondents had a different answer. The CDC official who said 'Yes' gave the ratio of 40:1, implying 40 pupils were to be handled by one teacher. This response was in accordance with the normal class load according to the NEP, Educating our Future, MoE (1996). This assumption, as much as it is in accordance with the class load policy does not address the aspect of the field project. In some of the *Zambian High Schools*, the

enrollment is more than 40. The CDC official went further to propose that the appropriate ratio would be 35:1. One of the suggestions from the SESO was a maximum of two classes per teacher. What was not stated by all MoE officials was the number of pupils in those two proposed classes. The reason advanced for the officer who said 'No' in Table 18 was that plans were under way to come up with a uniform and standard ratio.

The results from Tables 16, 17, and 18 clearly demonstrate that there was/is no proper guideline from the MoE on the pupil-teacher ratio policy. For instance, if there was a policy in place, all the eleven teachers in Table 16, page 74, would indicate 'Yes'. Like geography teachers, school managers in the same schools had their own views. Four school managers out of five, representing 80 per cent indicated that there was no policy on the pupil-teacher ratio. However, one, representing 20 per cent left the item unanswered. The seriousness of the matter is where even the MoE officials who are the formulators and policy implementers had different opinions on the same ratio.

Indications from the findings in Appendix 8 suggest that teachers of geography would like to have a policy on the pupil-teacher ratio as their proposed ideal ratios show. The uncertainty about the pupil-teacher ratio by the geography field project stakeholders as discussed above poses a threat to the implementation process of the project in the Zambian schools. It does not satisfy one of the conditions of a successful geography fieldwork experience as advised

by Tilbury and Williams (eds) (1997) and AMSS (1958;1967). This study further establishes that the Zambian system makes it quite a complex for now to set up some standard ratio due to various factors at play.

The other compounding factor besides schools being understaffed and having different capacities, is the existence of Open learning classes in high schools. There seems to be more pupils in high schools. There are regular students who report to school in the morning and those for Open Learning who report to school in the afternoon. Most of the teachers who are involved in the morning are also utilized in the afternoon. In addition to that, some of those teachers also handled the evening General Certificate Education (GCE) classes. In such situations, one teacher had so many pupils to attend to. This is likely to breed inefficiency, sub-standard and less concentration on each pupil's individual work. At the end of the pupils' reports, they would not submit the standard work because in the first place guidance at individual pupil level was not sufficient and this is in agreement with (Archer 1972). And this came out during the researcher's findings.

On the issue concerning adequate time allowance of field project to be made in the school time-table as advised by authors like Tilbury and Williams (eds) (1997), the researcher found out that time was limited in ZHS. Pupils and teachers indicated that there were no fixed time factor to the project exercise. There was nothing in the

school master time-table to specify when pupils and their teachers were to go out on geographical excursions and other experiences. It all depended upon the teacher's discretion to use part of the already existing three or four Geography periods per week depending on the school. Both groups of teachers and pupils said that, it had become difficult to create extra time for the field project. All teachers interviewed used their already strained geography class periods to carry out the project. Some claimed that they used one, yet others used two periods per week respectively. This, however, was being done at the expense of other geography components. One teacher respondent said that, "I meet them only three times in a term. After covering much work on other geography components, I will go back to fieldwork". Going by some recommendations by authors such as Tilbury and Williams (eds) (1997:195) who observe that, "fieldwork should always be integrated with classroom activities. It must be integrated with the scheme of work, with the key questions for investigation in the field emerging from previous tasks...and direct subsequent work". The Zambian Education system was not providing enough time to the geography field projects. What may further result from this experience is little or no attention to pupil individual needs. One pupil respondent commenting on problems encountered said, "my teacher should explain on what we are expected to do". The other pupil said, "teacher should talk to us individually". There was need to consider giving adequate time to

fieldwork in ZHS. Lwengu ended up carrying out part of their project activities during weekends, time when they were supposed to be preparing for other things especially in other subjects. Lwengu may have been finding it easier though, because it is a boarding school. It was observed that the project was quite costly in terms of production in that pupils met all the costs in the production of the final field project report. Besides, the monetary aspect, pupils showed that geography encroached into other subjects and extra curricular activities.

The researcher sought clarification from the MoE officials about the adequacy of time for the project work. The response from the CDC and the SESO officers was that there would be no need for separate periods from the already existing three or four geography periods per week. The advise they gave was that teachers were supposed to start their project works in Grade 10. This was in accordance with the stipulated regulations by the ECZ. In terms of time allocation for Grades 10s and 11s, the ECZ recommends:

A minimum of three periods of teaching per term, at least one excursion (This translates into a minimum of 9 periods of teaching field project and at least 3 excursions per year (ECZ 2003:8)

The argument was that grade 10 was meant to lay a foundation only. Grade 10 time would be used to familiarize pupils to what was required (a preparatory stage). Grade 11 was meant to further expose pupils to the field experiences and some initial writing of the project. Grade 12 would be for proposals and the approving of topics

and the area of study. This should be accompanied by the writing of the project. The observation from schools was that some of them did not begin their project work in either Grade 10 or Grade 11, but had to begin in Grade 12. This later put pressure on both the teachers and worse still on the pupils thereby leading to poor write-up exercise for pupils. If the project was given the rightful time and attitude by both groups (that is, teachers and pupils), there would be less pressure especially on pupils.

Due to the delay in carrying out the project at the appropriate time, some candidates failed to submit their final written reports in good time. This delay affected the whole process of marking and submitting the final grades to ECZ. The ECZ officer observed this and confirmed that, at times they had to follow up some schools for either the submission of the results; some sampled written reports or missing results. There is need perhaps to centralize the marking of the projects in order to improve the implementation process.

#### **4.6. Safety and legal bureaucratic insurance condition**

Safety and bureaucratic insurance is another basic condition in the implementation process of the geography field project. Scholars like Tilbury and Williams (eds) (1997), Archer (1972) and AMSS (1958; 1967) also emphasized the importance of safety and a range of legal bureaucratic measures. The importance of the same in the successful implementation of the project cannot be over emphasized. The advice given by authors referred to is that the organization involved in field

visits or trips should ensure the safety for pupils and teachers inclusive. In addition to ensuring the safety for both pupils and teachers it is advisable to give it a legal binding by involving the local insurance company, if any. This has to do with compensation in case of loses, injuries and deaths. This should either be done by the school on behalf of every person on the trip, the agents sponsoring the visit or the firm where the school or the associations to which teachers are affiliated. Table 19 shows whether school managers were aware of a national policy on the safety and insurance respectively the in ZHS or not.

**Table 19: School managers' awareness of the safety and insurance policy in high schools**

<b>Response</b>	<b>Numbers</b>	<b>Percentage (%)</b>
<b>Yes</b>	0	0
<b>No</b>	5	100
<b>Totals</b>	<b>5</b>	<b>100</b>

The results presented in Table 19 indicate that all school managers neither had any safety measures nor insurance policies in place in their high schools. Furthermore, they stated that they did not even have any guideline from the MoE. The reason advanced by the school managers was that there was no other programme in their schools which had a policy to do with the same. The researcher's findings indicated that there were no safety rules in place in all the high schools to refer to. In addition, to that, there was no time any

school on a field visit got some insurance from any insurance firm. This approach to fieldwork experiences is not what scholars like Tilbury and Williams (eds) (1997) emphasized as one of the basic conditions to a successful implementation of the field projects.

On safety, this study reveals that high schools depended largely on members of staff accompanying the pupils. They also depended on some responsible pupils chosen to help maintain order and security. Furthermore, the findings indicated that before any field trip was made, the members of staff in-charge would from their own experience give highlights of what was expected of the children. In other schools like Monze Boarding, one of the teachers involved in teaching field project was a guidance and counseling member of staff.

The failure by the schools to provide well documented safety rules and guidelines and also secure insurance documentation whenever they went out was a serious omission. It is also not in line with one of the conditions to the successful implementation of the field projects, as observed by Tilbury and Williams (eds) (1997:197) who state that, "And insurance must be in place. In particular, the emphasis on safety must be paramount in fieldwork, and the importance of appropriate leadership training for staff vigilance, risk avoidance and conservative decision making in the field must be stressed". Teachers' like pupils' lives may be risked and at the same time both may not be compensated in case of an accident. The other risk is that in case of an accident, a school may be sued. The fact

that there was no report of accidents or the like at the time of research, did not suggest that such things did not happen. Schools, organizations and related institutions should always endeavor to put all these things in place, failure to which they may not have full experience of the field project. As much as there could be challenges in setting up the rules and securing insurance documents, there is need to have guidelines in place.

The seriousness of the whole matter is that even the MoE was not aware of any safety measure and the national insurance policy for pupils and teachers. High schools, however, indicated the possibility of having something documented on the same, in the near future to stand as a guide for references.

For any successful implementation of the Geography field project there was need for communication and pastoral care issues as observed by scholars like Tilbury and Williams (eds) (1997) and AMSS (1958;1967). Communication may be in many facets; communication to pupils, to parents and to the local community to be visited. The researcher established that communication which was done to pupils, parents and the community at large was very weak. Whereas it was easy for teachers to communicate with some places where they were to go with pupils for a familiarization field visit, it was not so easy when it came to pupils going out on their own. What usually happened was from time to time pupils were given introductory letters to take with them. Some letters were honored yet others were not.

Furthermore, it became quite difficult to communicate with parents/guardians especially for boarding schools. This is because the field excursions were done mostly during the school term.

Pastoral care in ZHS was not being fully utilized. What teachers who always went out with a group of pupils did was to ensure proper instructions and security were observed by everybody. There was need, though, under difficult circumstances by all schools to put up strict measures to ensure that the team on field trips was cared for. From the communication point of view, there was need for schools to send in some consent forms to parents at the end of every school term. Such forms should be filled in by both parents and pupils to commit themselves about their involvement in fieldwork activities during the following school term(s). This kind of communication may help parents to prepare themselves and also their children, financially, in readiness for the number of trips the school would suggest by the schools. At the time of research, this was not being done.

The researcher also found out what the pupils felt were added advantages arising from the new component of geography field project. The advantages included issues such as that it:

1. Helped them to see things for themselves and they could easily remember even during their examinations,
2. Provided more understanding as compared to the classroom experience,

3. Helped them on how to gather information,
4. Gave them an idea on how to prepare research instruments,
5. Helped them to put knowledge into practice,
6. Helped them to develop interest in the subject,
7. Helped them to acquire different geographical skills, and
8. Helped them as a preparatory stage for further research challenges.

The researcher further established from pupils what they missed out by not being taken out for field project excursions. Pupils' responded by saying they missed:

- a. Activities done at the farm,
- b. Knowledge on how to write the project,
- c. Relevant information from the experts in the field(that is, those found outside the classroom),
- d. The experience of how fellow Zambians lived in their communities,
- e. Reality of issues such as erosion, over grazing and shifting cultivation,
- f. Ability to apply geography in practical life,
- g. Geography in practice,
- h. Experience on how to carry out the field project,
- i. Ideas on how to collect information, and
- j. Things which were not in geography text books.

The above responses from the pupil respondents on what they missed out needed serious consideration because they were just re-emphasizing what was already enshrined in the new geography curriculum (CDC 2000), failure to which the successful implementation of the field project in Zambian high schools would be impeded.

On assistance which the pupil respondents received in their field project, the researcher established that to some degree, pupils received assistance from all other stakeholders, their parents inclusive. Below are their responses on the assistance received.

**I. Assistance from geography teachers:**

- a. Explanations on what should be done,
- b. Procedures on field project,
- c. How to write a good report,
- d. Accessing equipment to be used during field excursions, and
- e. How to become a good geographer and collect data from targeted people.

**II. Assistance from school managers:**

- a. Providing school materials,
- b. Providing transport, and
- c. Providing time to do projects.

**III. Assistance from local communities (i.e. parents/guardians/experts/intellectuals/business firms):**

- a. Provided solutions to problems they faced in their

Community,

- b. Provided money for food and transport for field work, and
- c. Facilitated in finding people to interview.

IV. **Any other:** This group included friends, school leavers inclusive, and other close relatives. From this group pupils received:

- a. Encouragement on asking them when they got stuck, and
- b. How to write the report.

## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1. CONCLUSIONS**

This study has shown that the majority of the pupils consider geography as one of their favorite subjects which makes it easier for the successful implementation of the geography field project in ZHS especially the Technical High Schools. However the teachers of geography did not expose their pupils well enough in terms of fieldwork excursions to prepare them adequately for a write up of the project report at the end of their Grade 12.

Private schools exposed their pupils to more fieldwork excursions as compared to any other school, yet there was little or total departure from some of the basic conditions to a successful implementation of the geography field project as outlined and observed by authors like Tilbury and Williams (eds)(1997) and AMSS (1958;1967).

This study has also shown that geography pupils, geography teachers, school managers, MoE experienced practical economic, social-cultural, natural and environmental problems during the implementation of the field project in ZHS and also that the ZHS were not fully stocked with the relevant literature on geography field project to facilitate the successful implementation of the field projects.

This study has further shown that the MoE did not equip teachers and school managers with the necessary skills, tools and

equipment at the commencement of the geography field project component.

The study continues to show that geography field project component should be compulsory and not optional due to the various advantages it offers and that the majority of the teachers handling the geography field project in the schools surveyed were not trained for the task at all.

It is hoped that this study has provided reliable information on which practitioners can base their planning for the implementation of the geography field project in ZHS. In this regard, the following aspects are being recommended:

## 5.2. RECOMMENDATIONS

	<b>Recommendation</b>	<b>How to Achieve the Recommendation</b>
<b>1</b>	Upgrading all diploma holders to degree level in accordance with the national policy on education(MoE 1996)	<b>1.</b> This to be carried out by the MoE through teacher education programme
<b>2</b>	Centralization of field project marking at national level	<b>2.</b> The MoE through the ECZ should at national level select a central place where all teachers involved should meet and mark the projects; where possible on exchange basis
<b>3</b>	Group project studies by some pupils	<b>3.</b> Geography teachers should encourage some of their pupils to do group project studies involving data collection, processing and interpretation, but write individually when it comes to the final reports
<b>4</b>	Two separate periods from geography periods involving at least 11 hours per term	<b>4.</b> MoE through CDC/Individual high school administration should fix

	should be allocated to field project.	such separate periods on the school master time-table, so that all teachers will be duty bound
<b>5</b>	Pupil-teacher ratio of 30:1	<b>5.</b> Individual geography teachers assisted by school administrators to effect this
<b>6</b>	Documentation of safety rules and guidelines in high schools	<b>6.</b> Individual high schools through geography department to effect this
<b>7</b>	Acquisition of Insurance policies for teachers and pupils on field excursions	<b>7.</b> Individual high schools through administrators should ensure this is done

### **5.3. Suggestions for Future Research**

Further studies should be conducted to find solutions to issues which may include the following:

- i. The effect of the geography field project on the general performance of pupils in geography.
- ii. Do degree holders perform better in geography field project than the diploma holders?
- iii. What has been the effect of geography field project in the Zambian tertiary education?
- iv. How effective is the geography field project in the Zambian Education system?

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**APPENDICES**

**APPENDIX I**

**QUESTIONNAIRE FOR GRADE 12 PUPILS**

1. Use a tick [  $\checkmark$  ] to indicate your choice where you have a choice to make.
2. Give brief but adequate information for descriptive questions
3. Where it is not applicable, indicate N/A

**SECTION A: GENERAL AND PERSONAL DETAILS**

This section will ask questions on general and your personal details.

Date of the Interview: \_\_\_\_\_ Grade: \_\_\_\_\_

1. Name of the school:

\_\_\_\_\_

2. Sex:     i) Male [    ]                    ii) Female [    ]

3. Is Geography one of your favorite subjects at school?

   i) Yes [    ]                    ii) No [    ]

**SECTION B: GEOGRAPHY FIELD PROJECT WORK INFORMATION**

This section will ask questions on the Geography Field Project work.

4. Have you ever been taken out of the classroom by your geography teacher for any geography field work? i) Yes [    ] ii) No [    ]

5. If "Yes" to question 4, list down the benefits you have obtained by learning geography from outside the classroom as opposed to learning geography from the classroom.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. If "No" to question 4, write down what you think you are missing by not learning geography from outside the classroom.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Write down any assistance you receive in carrying out the Geography Field Project work from each of the following:

i) Your geography teacher

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ii) Your School Manager

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iii) Your local community (Parents/Guardians, Experts, Intellectuals, Business firms, )

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iv) Any Other (Please specify)

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8. List down any Geography Field Project work materials and equipment you use in school to help you carry out the geography field work.

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9. How many times (since Grade 10) has your teacher (s) taken you out for the geography field excursions?

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10. Do you experience problems in carrying out the Geography Field Project work as an individual?

i) Yes [    ]    ii) No [    ]

11. If “Yes” to question 10, list down all the problems that you experience in carrying out the Geography Field Project work.

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12 If “Yes” to question 10, what should your geography teachers, school managers, local community and any other do to help solve such problems?