

## CHAPTER ONE

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### *RESEARCH PROBLEM*

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#### **1.0 Introduction**

This chapter looked at the background of the study and provided the foundation of the research problem. It also provided the statement of the problem in relation to the implementation of fieldwork in the teaching and learning of physical Geography. It stated the research questions and gave the significance of the study. The delimitations and limitations of the study were also included in this chapter and a summary was provided.

#### **1.1 Background to the study**

As a discipline, one of the unique attributes that Geography has is fieldwork. The concept of fieldwork is well known all over the world. Shroder (2002) is of the view that fieldwork in Geography is an outstanding method in the discipline whereby new understandings of the physical phenomena can be incurred most clearly when combined with other comprehensive mapping tools in the Geographic Information Science (GIS) laboratory.

According to Onn and PohPoh (2008), as a subject concerned with the study of human activities in relation to the physical environment, Geography should have a firm appeal to learners, however in most cases it raises little interest and even has to rationalise its position in the curriculum. In many schools, the education of learners in detailed fieldwork techniques is limited and it is therefore regrettable but true that in many of our schools Geography is still largely taught and learnt as a compendium of facts. Although more enlightened methods or approaches are available, in many schools in Zimbabwe, many teachers still stick to the

traditional methods, which are usually teacher centred, to put the subject across and stress the learning of facts instead of the understanding of principles and concepts. Furthermore, Onn and PohPoh (2008) argues that the traditional methods, such as the lecture method used by most teachers in schools are poor instructional approaches for maintaining learners' concentration in class. This has triggered the researcher to carry out the research.

Fieldwork is considered to be as rooted to the subject Geography in the same way clinical practice is to medicine. It is the aim of Geography as a secondary school subject to help learners understand their natural environment and the universe. According to Akintade (2012) this cannot take place in rigidly or stiffly planned classroom activities where the teacher and the textbook are the only generators of information. In order for learners to be able to generate explanations on physical Geography concepts they need to have a direct contact with the landscape and the only way to achieve this aim is by taking learners outside the walls of the classroom to a place where they are able to have a direct tangency with the landscape.

It is the role of the geography teacher to make Geography more meaningful, realistic, and naturalistic. Teachers should also make the subject intellectually challenging and avoid saddling the minds of children with mere or bare factual information. Furthermore, learners possess a sense of curiosity hence it is the role of the teacher to stimulate the curiosity of the learners by employing arousing and dynamic instructional approaches. In other words, teachers should not rely on a single teaching method so that learning becomes effective, inspirational and interesting.

According to the Geographical Association's manifesto (2009) local, residential or international fieldtrips had been a significant and essential part of the Geography entitlement in secondary schools for decades. Blank, Chambers, Donert and Thomas (1996) also

described geography without fieldwork as science without experiments in the sense that the practical skills that are gained are important in connecting the theory of processes, systems and interconnections of the environment.

The research also arose as a result of poor results due to low scoring in physical geography for the past decade as evidenced by ZIMSEC analysis reports and school examination reports. The researcher linked poor performance in physical geography with the traditional methods that teachers use in the teaching of physical Geography at Ordinary level. During her work related learning, the researcher also had a look at the participation of learners during their lessons in a classroom and noticed that pupils were failing to grasp the concept of physical geography without some direct contact with the different learning centres which had some real objects. This research therefore analyses the use of fieldwork in the teaching and learning of physical Geography at Ordinary Level.

## **1.2 Statement of the problem**

The teaching and learning of physical Geography within the four walls of the classroom is confined to the maps, globe and the textbooks, however the real Geography exists outside the classroom. Learners tend to have misconceptions pertaining the attributes of physical Geography, for example learners may know that a volcano explodes but may not be able to identify a volcano in a picture or even list and distinguish the landforms that are found in their own residences.

The researcher felt that, despite its convincing benefits, fieldwork was a neglected and ignored methodology in Zimbabwean Secondary Schools and very little had been done to develop it and enhance its use. Successful learning requires the maturation of the entire being and not simply imparting knowledge hence fieldwork is a mechanism for accomplishing such an educational objective. This research was therefore aimed at analysing the implementation

and use of fieldwork in the teaching and learning of physical Geography at Ordinary Level in Gweru District.

### **1.3 Research questions**

1. What is the nature of fieldwork implementation in the teaching and learning of physical Geography at Ordinary Level?
2. What is the value of fieldwork in the teaching and learning of physical Geography?
3. What are the challenges facing effective implementation of fieldwork in the teaching and learning of Geography at Ordinary level?
4. How can the implementation of fieldwork be enhanced in schools?

### **1.4 Significance of study**

This study is very significant to different stakeholders who range from teachers, pupils, school administrators, the Ministry of Primary and Secondary Education and the subject Geography itself.

The findings of the study will help pupils, teachers and school administrators in finding ways to enhance fieldwork implementation in their schools. It will also help school administrators and teachers in appreciating the value of fieldwork and assist them to shift from the traditional methodologies which they use in the teaching of physical geography in order to maximize performance of learners in Geography.

The study is significant to the subject Geography as it will assist in marrying theory and practice and save the subject from being rigid and theoretical. It also justifies the new curriculum which is encouraging hands on experience. Fieldwork involves practical activities and Geography can be taught whilst learners have a real image of the concept.

The study is also important to the researcher since it will equip her with research skills. It will also provide as a basis for future research and source for workshops in various schools.

### **1.5 Delimitations**

The study analysed the implementation of fieldwork in the teaching and learning of physical Geography at Ordinary Level. It was also confined to two secondary schools in Gweru District only. The researcher managed these schools in terms of accessibility since they were nearer to where the researcher was residing. The study was confined to Ordinary level physical Geography only. Only four Geography teachers, Geography Heads of Department (HODs) and ten pupils doing Geography at 'O' level from each of these schools were considered participants in the study.

### **1.6 Limitations of the study**

The researcher was limited in finances which reduced mobility and access to other information centres. The study was intended to target four schools, however the researcher could not access all the schools due to limited finances and time. The researcher also had to be content with getting untruthful information.

### **1.7 Definition of terms**

**Fieldwork** - Any approved practical work, teaching, study or research activity, usually conducted in the untidy real world or outside the classroom.

**Physical geography** - The scientific study of the natural features of the Earth's surface, especially in its current aspects, including land formation, drainage features, climate, currents and distribution of flora and fauna. (The American Heritage Science Dictionary 2000)

**Teaching-** teaching is the process of imparting knowledge, skill or giving instruction to someone. (Webster 2017)

**Learning-** According to Webster (2017), learning is the activity or process of gaining knowledge or skills by studying, practicing, being taught or experiencing something.

**Implementation-** The process of making something active or effective (Webster 2017)

## **1.8 Summary**

This chapter outlined the background of the study whereby the basis for the research was provided. The statement of the problem pointed out the specific gap that existed in relation to fieldwork implementation and the four research questions that guided the researcher in carrying out the study were also listed. The chapter also highlighted the significance of study and mentioned how various stakeholders would benefit from the findings of the study. The limitations of the study were outlined and the researcher also explained how the research was narrowed in scope in the section of delimitations. Key terms that were used in the study were defined. The chapter set the tone of the discussion on the analysis of fieldwork implementation in the teaching and learning of physical Geography at Ordinary level.

## CHAPTER TWO

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### *REVIEW OF RELATED LITERATURE*

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#### **2.0 Introduction**

This chapter explored literature related to the implementation of fieldwork in the teaching and learning of physical geography at Ordinary level. Specifically, literature review originated from the research questions of the study. It was necessary to get into details about what fieldwork was all about, how it was being implemented and how its use impacted on the mastering and understanding of physical geographical concepts. This chapter therefore looked at the concept of fieldwork, the stages involved in its implementation and the rationale for its inclusion in Geography. The challenges faced and the ways to enhance the implementation of fieldwork were included as well.

#### **2.1 The concept of fieldwork**

According to Fuller (2006) fieldwork is any arena or zone within a subject where outside the constraints of the four walls' classroom setting, supervised learning can take place via first-hand experience. This is supported by Lambert and Reiss (2014) who defined fieldwork as any curriculum component that involved leaving the classroom and engaging in teaching and learning activities through first-hand experience of phenomena out-of-doors. In terms of teaching and learning Geography in schools, Sidaway (2002) interpreted fieldwork as a way of seeing and knowing the world that had been essential to the identity and distinctiveness of the discipline.

Driver (2000), regarded fieldwork as a central characteristic of the geographical curriculum at both school and university level. This was in agreement with the views of Payne (2017) who asserted that, the role of fieldwork is a crucial and characteristic aspect of Geography. Fieldwork enhances the learning of concepts, skills and topics in physical Geography. This learning can take place after a topic is introduced to learners, during the course of presenting important concepts, or as an initial presentation to material which will be taught later.

According to Qui and Hubble (2002) fieldwork was a fundamental aspect of geoscience research and activity which consisted of surveying, observing, describing and mapping the geometrical or geological relationships of rock units and landforms at the site of their occurrence. It involved aspects such as field teaching, field trips, field camps and field research where learners would actively engaged with the external world. Field activities could be local, residential or even international and they could be undertaken at any time. However, Ngcamu (2000) stated that most schools undertook what were known as ‘trips of the year’ usually at the end of the year when pupils had finished writing their examinations and lessons have ceased.

In Geography education, fieldwork was very common in most parts of the world, however Fagerstam and Samuelson (2012) revealed that fieldwork had fallen out of favour in most secondary schools of China. This was a similar situation to most African schools including Zimbabwe whereby the use of fieldwork had been neglected by many teachers and school administrators. However, Fagerstam and Samuelson (2012) continued to argue that, though fieldwork had fallen out of favour in most Chinese secondary schools, the new junior high school standards that had been recently established emphasised the importance of conducting fieldwork in Geography.



## **2.2 Stages in implementing fieldwork**

According to Kanyampa (2011), fieldwork was implemented in three stages. These stages included the preparation stage, the concrete experience stage and the follow up stage. Nuratu (2000) also talked of three stages of fieldwork implementation which were the abstract conceptualisation, the active experimentation and the reflective observation stage. These stages were very critical for the attainment and success of fieldwork goals, however a research conducted by Ngcamu (2000) revealed that in most South African schools these stages were not observed since fieldtrips were usually conducted at the end of the term. In these trips, there were no stated objectives and no follow ups were made. According to Nhandara (2017) this was also a similar case to Zimbabwean schools where fieldtrips were mostly conducted once at the end of the year mainly due to financial constraints.

### **2.2.1 The preparation Stage/ Abstract Conceptualisation Stage**

This was the stage at which the teacher made preparations before going out into the field. This was supported by Nuratu (2000) who stated that, the abstract conceptualisation included all pre-field activities. According to Kanyampa (2011), this phase entailed determination of purpose of the fieldwork and also provided an outline of the activities to be undertaken by the learners. The preparation involved seeking permission from the school authority and from where the fieldwork was to be conducted. It also involved formulating the topic as well as the objectives of the study, selecting and designing the methods to be used. Other preparations such as organizing transport, food and selecting equipment to be used during the study were also made at this stage.

### **2.2.2 The Active Experimentation or Concrete Experience Stage**

This was the stage whereby the actual fieldwork was conducted in the field acquiring information using the various techniques such as observing, sketching, taking notes as well as asking questions. Kanyampa (2011) posited that, during fieldwork execution, the teacher should bear in mind what features learners should look for and should also take into consideration the duration of the fieldtrip. It was also necessary for learners to be equipped with data collection instruments as well as note books for recording the data collected. The teacher should guide the learners during fieldwork execution.

### **2.2.3 Reflective Observation Stage or follow up stage**

According to Nuratu (2000), this stage was also known as the post fieldwork stage. It was the final stage of implementing fieldwork when learners were back from the field. It was at this stage where raw data collected in the field was analysed and processed by reporting and presenting it in a way that could be easily understood such as graphs, tables or diagrams. Kanyampa (2011) stated that learners also compiled a report on what they had observed and learnt from the field after interpreting the information. Conclusions were also drawn after the analysis and interpretation of data.

## **2.3 Rationale for inclusion of fieldwork in the teaching and learning of physical geography**

Learners have an instinct or a feeling of curiosity hence they are curious to discover and experience things that exist around them. A fact discovered and observed by a learner by his or her own efforts will definitely become a part of mental life of the learner. The information

gained is more valuable compared to the same facts read from a book or learnt from the teacher in the classroom.

Ngcamu (2000) revealed that fieldwork also played an important role in equipping learners with basic skills and these included observation skills whereby learners observed various geological features or landscapes. This is supported by Onn and PohPoh (2008) who stated that fieldwork was an essential component of Geography education as it enabled learners to understand the messiness of Geography reality, develop knowledge in the subject and earn a variety of skills that could not be acquired in the classroom alone.

Through the use fieldwork, learners were also be able to gain analytical and critical thinking skills through observation and interaction with the real objects and the environment. Ngcamu (2000) also agreed to this view and explained that observational skills were difficult to develop in the classroom and the field was the proper place where learners could view the actual picture of what was taught in the classroom. Research, recording and measuring skills were also gained when learners collected, classified, analysed data and took accurate measurements of phenomena such as angles, distances and quantities. Learners also gained communication skills through expression of views and ideas about what they saw on the environment. Problem solving skills were obtained from identifying causes and consequences of environmental problems.

In addition, fieldwork enhanced the Geography curriculum by boosting geographical knowledge and understanding. Fieldtrips helped learners to have the experience of the real world and this experience enhanced information taught by the curriculum. According to Job (1999) fieldwork bridged the division between the classroom and the actual world and also assisted in reinforcing learners' understanding of geographical terminology and physical

processes. Learners were also be able to examine how theories and practical experiences interact.

A new and exciting learning environment for the learners was also created through fieldtrips since they also provided teachers the chance to teach the learners something new. Outdoor activities aroused the spirit of adventure and challenge which was largely sought by young learners. In other words, fieldwork provided motivation to learners. A research conducted by Job (1999) revealed that the concentration of learners in classrooms characterised by teacher-centred lessons started to decrease after 10-15 minutes. Therefore, equating the traditional 35-40 minute classroom lessons to fieldwork, fieldwork or interactive lessons were more fruitful and yielded more superior educational outcomes.

Team building was another advantage associated with the inclusion of fieldwork in the teaching and learning of physical geography. Hall, Healey and Harrison (2002) were of the view that, fieldwork had the potential to contribute widely to learner's personal and social development. Through team work, learners got close to each other and to the teachers as well. Leadership, teamwork and communication skills were developed and these further contributed to the learners' social and personal development. Boyle, Maguire, Martin and Milson (2007) also supported this view and they advocated that fieldwork played an important role in group bonding and integration. This was also supported by Payne (2017) who stated that this bonding process enhanced coherence within the learners.

According to Job (1999), fieldwork gave learners the opportunity to see the wider social and ecological effects of the environmental change hence contributing to education for sustainable development. Fieldwork therefore helped to develop a respect for the environment and facilitated experimental learning (Hall et al 1999). It helped pupils to develop an appreciation of their environment and other living organisms.

## **2.4 Constraints in the implementation and execution of fieldwork in schools**

Though fieldwork was an integral part of the Geography curriculum, various factors were barriers to its proper implementation in schools. Yuen (2012) asserted that, while the national curriculum was shifting towards a field inquiry approach, some pre-existing problems persisted and Geography teachers and pupils faced these numerous problems. Some of these problems included, financial constraints, issues of liability, lack of support from the administration and parents, large number of classes, limited time allocated to fieldtrips as well as limited areas of geographical interest due to highly urbanised landscapes.

### **2.4.1 Less parental involvement in fieldwork implementation**

Parental involvement, can be referred to as the effort provided by parents to boost the educational outcomes of their children. This might involve communication with the school as well as participation in school based activities. Generally, parental involvement should therefore be instrumental to achievement of pupils.

A study conducted by Ngcamu (2000) revealed that parents were not usually part of the annual school activities and were only told when money was needed to undertake fieldtrips. Ncube (2013) also revealed that most schools in Zimbabwe were characterised by poor communication between parents and the school authorities. This poor communication resulted in poor support from the parents' side and this even resulted in some fieldtrips being cancelled or postponed. Parents were the ones who funded for these fieldtrips hence if they were not involved in planning them, they might even choose not to pay for their children.

Parents should be consulted and their opinions should be taken into consideration before embarking on a fieldtrip.

Poor communication between parents and the administration also brought about the issue of liability, which was also affecting the implementation of fieldwork in schools. A research conducted by Sandes (2017) revealed that parents were usually concerned and often became nervous of their children's wellbeing and safety. If a learner got hurt, the school would become liable for the medical payments therefore this limited the frequency of conducting fieldtrips in many schools. Some parents might even deny their children the opportunity to go on educational tours because of this fear. On the other hand, a research conducted by Fagerstam and Samuelson (2012) disagreed whereby they stated that, the barrier fear and concern for healthy and safety did not meet with a wider response of Geography teachers who did fieldwork in Netherlands. The study revealed that only 8% of the Geography teachers acknowledged this hindrance or impediment.

#### **2.4.2 Planning and preparations**

Planning is a process that involves thinking and organizing the activities required to attain a desired goal. The planning process involved identification of goals or the setting of objectives to be achieved, formulation of strategies to achieve them, arranging or creating the ways or means to achieve them as well as implementing, directing and monitoring all these steps and in the proper sequence. This was a clear indication that planning was not an easy process at all.

Fieldtrips required careful and a lot of planning for them to be fruitful. This was supported by Sandes (2017) who stated that fieldtrips took an incredible amount of planning whereby transportation issues, food and alternate plans in the event of bad weather had to be taken into consideration. In addition, the school should also make sure that every student had a signed

permission form and an emergence contact should be available for every student. Teachers should also plan the trip in such a way that the trip aligns with the content for it to be a meaningful experience. The process of planning and preparing was tiring and was very long one hence this might also lead to some schools ignoring the importance of fieldtrips. Most of the major constraints to the effective implementation of fieldwork in schools were mainly exacerbated by inadequate planning and preparation.

### **2.4.3 Financial limitations**

These were mainly due to poor administrative and parental support. Financial constraints placed upon the fieldwork execution were found to be the largest constraint and had a very large negative impact on the implementation of fieldwork in schools. Fieldwork was sometimes seen by school management as expensive in terms of monetary cost as it required transport and food for teachers and learners undertaking the fieldtrip. This was supported by Lambert and Reiss (2014) who were of the view that despite the benefits brought by fieldwork, it was still comprehended as expendable by some school managers. Furthermore, administration might also choose to support other departments more than they support others, for example, here in Zimbabwe, the Science and Mathematics department were always the first priority in many schools as compared to Geography. The new curriculum of 2017 in Zimbabwe had even made Geography an optional subject leading to many schools paying less attention to the demands of the subject.

Parents might also delay in paying school fees for their children making it difficult for school to conduct these fieldtrips hence teachers resorted to the normal traditional methods that do not involve any expenses. Due to the minimal financial support, fewer fieldtrips were conducted and in some schools they were not conducted at all.

### **2.4.4 Limited time**

Fieldwork also required more of the out of class time of learners and teachers and usually the school timetables did not permit much time to be lost. Ndegwa, Omondi and Njirani (2016) were of the view that, syllabus completion in Geography was the most pressing challenge of the empirical approach. As a result, fieldwork was only conducted within a limited time and learners might come back to the school without completing their tasks. Habowa (2006) also supported the view that Geography was compromised by lack of adequate time to teach the field project in Zambia due to the few four periods allocated to Geography per week. The same situation also existed in Zimbabwean schools whereby the subject was also allocated four periods per week.

Furthermore, due to lack of time and the need to complete the syllabus many schools in Zimbabwe often undertook fieldtrips annually. Trips of the year were usually conducted at the end of the academic year when classroom sessions had ceased or when learners were about to write their examinations or even after they had finished writing the examinations. According to Fletcher, France, Moore and Robison (2003), in these trips, there were no goals stated, the purpose was not given, follow-ups were not made and most stages for proper implementation of fieldwork were skipped or not observed. This resulted in shallowness in learners' understanding of the natural phenomena since these field trips were not used effectively. In addition, a research conducted by Fagerstam and Samuelson (2012) also revealed that 50% of Geography teachers in Netherlands mentioned lack of time to develop fieldwork, to do fieldwork as well as lack of time in their class schedule.

#### **2.4.5 Limited geographical landscape**

Limited areas of geographical interest was also another barrier to effective implementation and execution of fieldwork in schools. According to Yuen (2012), while many Geography teachers were enthusiastic at the prospect of geographical fieldwork which was becoming



prominent as a key driver for geographical education, many teachers in Singapore still complained about the shortage of landscapes to conduct real fieldwork because the country was characterised by a barren physical landscape. Furthermore, in most countries, including Zimbabwe, schools in most urban areas might find it difficult to access various landscapes such as whalebacks, hills and other geological features due to the highly urbanised landscape.

#### **2.4.6 Attitude of teachers and pupils**

Some sceptics also thought that fieldwork was just a waste of time. Scott et al (2006) viewed fieldwork as not central to Geography education. Yuen (2012) stated that other teachers did not understand the role of fieldwork in constructing meaning in Geography hence they found it unnecessary to conduct fieldtrips.

A research by Fagerstam and Samuelson (2012) also revealed that Geography teachers in Netherlands believed that fieldwork was not a powerful and rich teaching strategy. As a result, 29% of them did not use fieldwork at all. However, Ngcamu (2000) disagreed and stated that fieldwork was an excellent teaching method that was based on sound educational principles well suited for hands on investigation.

Ncube (2013) also argued that, teachers in Zimbabwe were not remunerated and this has led to many teachers developing the feeling of dissatisfaction and having low morale. Low morale led to teachers not wanting to go an extra mile of employing dynamic methodologies such as fieldwork. Another research by Fagerstam and Samuelson (2012) also revealed that, though a large number of pupils found it interesting to learn outdoors, some pupils still found it boring. A research carried out in Zambian schools by Kanyampa (2011) revealed that 84.8% of pupils found learning through fieldwork exciting whilst 15.2% of pupils did not. Pupils who had a negative attitude towards fieldwork gave reasons such as it is too noisy hence made it difficult for them to concentrate.

#### **2.4.7 Large classes**

Large classes also acted as barriers to effective implementation of fieldwork in schools. Irving (2017) asserted that, in large classes, learners were tempted to drift away from the group and misbehaved. Teachers also found it difficult and challenging to control large classes especially in a new environment. Learners also found it difficult to pay attention to the lesson due to the excitement of spending the day outside the classroom. This resulted in the lessons degenerating into wandering of learners without any aim or purpose because of lack of direct supervision from the teacher hence learners came from the field without experiencing anything meaningful.

In addition, a research conducted by Fagerstam and Samuelson (2012) revealed that in large classes, some pupils felt less involved or far away. Some pupils even felt that they were less known by the teacher and hence decided to distant themselves from the class activities and misbehaved.

#### **2.4.8 Lack of resources or research equipment**

Lack of resources or equipment needed to support fieldwork execution was also another constraint to fieldwork implementation. This was mainly attributed and exacerbated by financial constraints that existed in most schools. Kanyampa (2011) also recognised lack of research resources as one of the major impediments when conducting field activities in Zambian schools. According to Ncube (2013) in many rural schools especially in developing countries such as Zimbabwe, lack of equipment was also a challenge faced by teachers and pupils in the implementation of fieldwork. Some of these equipment included measuring

tapes, compass, thermometers, wind vanes, barometers, chemicals for testing soil samples and even GIS tools.

## **2.5 Ways to enhance the implementation of fieldwork in schools.**

The real or natural world was an exciting place, however in many instances, fieldwork was being compromised by bureaucracy, money and time and the experience is sometimes seen as irrelevant and boring by some teachers and pupils. To make fieldwork a success, school authorities needed to adopt and employ exciting and innovative approaches in order increase interest in learners as well as their understanding of the topic under study. Lambert and Balderstone (2000), were of the view that, in teaching and executing fieldwork, Geography teachers also had to apply high level geographical skills of interpretation so that the young and inexperienced geographers also learnt to do the same.

Cherry (2007) argued that, due to the rapid change in information technology learners should be made aware of such developments and the opportunity to use them should be made available to them. They should also be used meaningfully to enhance geographical knowledge, understanding and skills. The study also established that one method that helped to create and stimulated interest in learners was the use of Geographical Information Systems (GIS) in fieldwork. When Geographical Information Systems (GIS) were used together with modern technologies, they gave a platform for a range of engaging and interesting learning experiences. Cherry (2007) also argued that school authorities usually responded negatively when learners brought their mobile phones to school. In most cases, in Zimbabwe they forbade their use, however, these were tools of this new generation and teachers and schools must shift from their old ways and consider how to embrace and utilise these new learning tools. Whilst doing fieldwork, learners could use technology in an exciting and meaningful

manner, for example using GPS tracking to record slope profiles or even transferring data from one group to another using Bluetooth.

Irving (2017) was of the view that, since it was difficult to control the whole class in a new environment, large classes should be avoided. If the number of learners was too large, the teacher might divide the class into various groups and assigned a different task in each group so that all learners were occupied with something meaningful. The teacher might also group excitable learners with calmer learners so that the groups became manageable. According to Irving (2017), it was difficult to control learners on a fieldtrip therefore there was need to enforce rules. Learners needed detailed instructions from the teachers and parents before they went for a fieldtrip. There should be established consequences for breaking the rules.

Fieldwork might be successful through proper planning and flexibility, however, issues like budgetary constraints might hinder the implementation of successful fieldwork. Irving (2017) was of the view that it was necessary for a teacher to team up with another teacher to help in generating interest and have planning support.

Schools should also conduct more frequent fieldtrips before, during or soon after the topic had been introduced. Fien et al (1984) posited that fieldwork should be directly relevant to the topic being studied so that it makes a worthwhile contribution to the learners. This results in more meaningful fieldtrips being conducted as there would be stated goals to be achieved. School timetables should also be designed in such a way that adequate time is allocated to fieldtrips.

Seeking parental consent before embarking on a fieldtrip with pupils was also one of the main steps that schools should take when they want to conduct fieldtrips. According to Kanyampa (2011) it was an obligation for teachers to seek parental consent and know the parents' attitude before going for a fieldtrip. This avoided situations whereby some pupils

remained behind whilst others were learning. However according to the study conducted by Kanyampa (2011) in Zambian schools, 58.1% of teachers did not bother to get permission. The study continued to argue that if something happened to the unmonitored pupils in the field, then the teacher would have no answers to the parents. It was therefore essential to get permission first for a successful fieldtrip to be conducted.

## **2.6 Summary**

This chapter looked at literature related to fieldwork implementation. The main stages involved in implementing fieldwork were outlined and discussed. It also highlighted the importance of including fieldwork in the teaching and learning of physical geography. The major challenges that were being faced in conducting proper fieldwork in schools and the various strategies that could be employed to enhance fieldwork implementation were also highlighted.

## **CHAPTER THREE**

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### *RESEARCH METHODOLOGY*

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#### **3.0 Introduction**

Research methodology prescribed rules and procedures in which the research was conducted and defined what the activities of research were, how it proceeded, measured progress and what constituted its success. This chapter therefore outlined the methodology which was used to collect information on the implementation of fieldwork in the teaching and learning of physical geography at Ordinary level. It also described the research design, data collection methods, population, sampling techniques and research instruments used in conducting this research and how these were controlled in order to ensure validity and reliability.

#### **3.1 Research design**

According to Newman (1997) a research design was a specification of what and how the data will be collected from the participants. Oppenheim (1992) defined a research design as a basic plan or research strategy to be considered in order to collect data from respondents and draw general conclusions from it.

This study adopted the descriptive survey design to facilitate the research process. Cohen et al (2007) was of the view that surveys gathered data at a particular point with the intention of

describing the nature of existing conditions. The descriptive research design helped in answering the, who, what, when and where questions associated with the problem under study. It also generated numerical data and provided descriptive and explanatory information which was used to make generalisations about the findings. Standardized information which yielded rich data was gathered and this led to important suggestions and recommendations. This was supported by Salaria (2012) who stated that, descriptive surveys provided information useful to the solutions of the local problems or issues.

### **3.2 Population**

Chiromo (2009) was of the view that, all the people, objects and events under study constituted a population. Best (2007) defined a population as any group of individuals who had one or more characteristics in common that were of interest to the researcher. It was to the population that research findings were generalised. In this study, Geography teachers, heads of departments and pupils in two secondary schools in Gweru District constituted the population.

### **3.3 Sample**

Chiromo (2009) defined a sample as a subset of the given population that represented the characteristics of the whole population fairly and accurately so that the researcher could generalize the findings from a sample to the whole population. This was supported by Cherry (2017) who defined a sample as a subset of a population that is used to represent the entire group as a whole. The researcher used a sample to carry out the study because it was impractical to survey every member of the population. The study therefore targeted two Geography Heads of Department (HODs), eight Geography teachers and twenty pupils doing Geography from the two selected schools in Gweru District.

### **3.4 Sampling techniques**

A sampling technique refers to the process by which the members that constituted the sample were selected. Best (2007) posited that, a sampling technique was a process by which a relatively small number of individuals, objects or events were chosen and analysed in order to find out something about the entire population from which it was chosen.

It was very important that the selection of respondents included in the sample was done without any bias, therefore, the simple random sampling technique was used to select pupils who participated in the study. According to Cherry (2017) simple random sampling was the simplest type of probability sampling where every individual in the population stood a chance of being selected thereby creating more representative samples that were better to generalise their results to the whole group.

The snowball sampling technique was used in the selection of teachers. According to Chiromo (2009), the snowball sampling technique involved the researcher identifying a small number of individuals with the characteristics that he or she was looking for and these are asked to identify others with the same characteristics. The researcher therefore identified one Geography teacher from each school and these in turn identified other Geography teachers. The purposive sampling was used to select Heads of Department whereby the researcher handpicked the participants on purpose.

### **3.5 Research instruments**

These refer to instruments that the researcher used to collect data. Annum (2017) described research instruments as fact finding strategies. In this study, the researcher used questionnaires and interviews as instruments for data collection. These research instruments contained systematically presented questions that enabled the researcher to obtain uniform data that could be easily summed, compared discussed and that also helped the researcher in drawing conclusions.



### **3.5.1 Questionnaires**

Questionnaires are research instruments that consist of a series of questions with the intention of obtaining or gathering information from the participants or respondents. Annum (2017) defined a questionnaire as a systematically prepared form or document with a set of questions deliberately designed to elicit information from the respondents. The questionnaires were distributed to both teachers and pupils under study.

The researcher used the questionnaires in two parts, the structured and unstructured questionnaires. According to Annum (2017) structured questionnaires, consisted of close ended questions in which control or guidance was given for the answer. The questions in structured questionnaires were short and required the respondent to provide a yes or a no response. Unstructured questionnaires consisted of open ended questions which allowed respondents to respond in their own words and express their views. The questionnaires were designed in such a way that spaces were provided for respondents to give their answer.

Questionnaires enabled the researcher to collect data from many respondents at the same time. The use of questionnaires also allowed wider geographical coverage since it enabled the researcher to collect data from respondents who were at a distance simultaneously. Respondents were also be able to answer the questions at their own pace and at their own spare time. Questionnaires also ensured anonymity and this enabled the participants to freely participate in the study. However, on the other hand, questionnaires held the disadvantage that some respondents did not respond to some of the questions on the questionnaire.

### **3.5.2 Interviews**

Interviews are conversations whereby the researcher asks questions for the purpose of gathering information. These are also referred to as face to face interactions whereby one

party seeks to extract views from another party in a particular situation. In order to extract data from the Geography Head of Departments of the various schools, the researcher used interviews. Interviews gave the participants an opportunity to express their views. Dornyei (2007) argued that interviews were a natural and socially acceptable way of collecting data since they could be used in various situations covering a variety of topics. Berg (2007) also stated that interviews should be adopted as research instruments as they facilitated obtaining direct explanations from respondents through a comprehensive speech interaction.

The researcher identified potential sources of information and structured the interaction in a way that helped in bringing important information from the participants. Heads of department were considered as participants to be interviewed. The unstructured type of interviews was used whereby the researcher was free to modify, change the sequence of questions as well as adding and subtracting some questions for the interview. However, interviews also had their own weaknesses such as some respondents were hesitant to give the required information. The researcher also came at a time when respondents were committed to other activities.

### **3.6 Validity of instruments**

Biddix (2005) defined validity as the extent to which an instrument measures what it is supposed to measure and performs as it is designed to perform. Thus, the questionnaires and interviews should simply measure what they are intended to measure. A valid instrument helped to obtain results that could be generalised to the whole population from the sample (Biddix 2005).

Research instruments were approved by experts before data collection and this is one way in which the researcher ensured validity. The researcher also used simple language in constructing questions and also avoided use of technical terms that could confuse the respondents. The questionnaires were also anonymous so that participants found it easy to

give truthful information. This also enabled the researcher to generalize the information gathered to the whole population.

### **3.7 Reliability of instruments**

Reliability is whereby the same test produces the same results if it is undertaken by participants under the same conditions. It is concerned with the accuracy of instruments and consistency of instruments when repeated measurements are made. One way in which reliability was measured was by giving the same test to the same participants and then compare the results on the different testing. Reliability indicated consistency hence the researcher also examined if similar questions gave rise to similar answers.

### **3.8 Data collection procedures**

The researcher first sought permission to carry out the research from the Midlands State University and the Faculty of Education. The Ministry of Education's permission from the head office in Harare and the Provincial education director in Gweru was also sought. After that, the researcher also sought permission from the selected schools' authorities, who were the school directors in this case. Through informed consent, the researcher also sought permission from the participants. Questionnaires were administered to geography teachers and pupils. Interviews were used to obtain data from Geography heads of department (HODs) from the two selected schools.

### **3.9 Data analysis plan**

The methods that assisted in the description of facts, detection of patterns and development of explanations constituted the process of data analysis. The descriptive statistical method was used analyse data gathered from sources. It also included the use of percentages and actual

numbers. Data was presented in form of bar graphs, tables, line graphs and pie charts and was qualitatively analysed and compared through the use of themes, codes and patterns. To improve the understanding of the analysis, explanation were added.

### **3.10 Ethical considerations**

Whilst carrying out the study, the researcher took into account the research ethics. Research ethics dealt with principles of what was right wrong therefore the researcher first sought for voluntary informed consent from the respondents who were involved in the study. The researcher did not force human subjects to participate but explained to them that they had the right to agree or refuse to participate. It was also the right of every participant to withdraw from the research at any time and for any reason. The researcher also kept the information given by the participants confidential and anonymous. Information given was not shared with other people. Participants' private life was also respected and the researcher did not share anything about the private life of any participant. The researcher also made sure that respondents were safe from all forms of harm and did not suffer physically or emotionally.

### **3.11 Summary**

This chapter outlined the methodology that was used in data collection. The study adopted the descriptive survey research design and applied the random, snowball and purposive sampling techniques. Questionnaires and interviews were the research instruments that were described and the researcher also explained the various ways in which their validity and reliability was established. Research ethics that were considered in the study were also outlined. The data collection procedures taken by the researcher were also given in the chapter. .

## CHAPTER FOUR

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### *DATA PRESENTATION, ANALYSIS AND INTERPRETATION*

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#### **4.0 Introduction**

This chapter looked at the presentation, analysis and interpretation of research findings obtained from the participants. The data was collected through questionnaires and interviews from Geography teachers, pupils and Heads of Department. Respondents were selected from two schools from Gweru District. Data was analysed through the use of themes, codes and patterns and summarised and presented in form of tables, graphs and pie charts. Data presentation and analysis was based on the research questions.

#### **4.1 Response rate**

The researcher self-administered the questionnaires and interviews to the two schools in Gweru District specifically for Geography teachers, HODs and pupils taking Geography at Ordinary Level. Since the researcher made a hand delivery of the questionnaires and self-administered the interviews, there was a 100 percent response rate.

#### **4.2 Distribution of respondents by gender**

**Table 4.1** illustrates the distribution of respondents by gender

Respondents	Heads of Department	Geography Teachers	Geography pupils
Males	1	5	8
Females	1	3	12

Total	2	8	20
Percentage	100	100	100

The results showed that five male teachers (62.5%) and three female teachers (37.5%) took part in the study. Male teachers constituted the majority of respondents because during the past years most males were willing to take science subjects such as Geography as compared to females. There was one male (50%) and one female (50%) H.O.D who also took part in the study. These results indicated an increase in gender awareness whereby females were also given the opportunity of being leaders in schools. Twelve female pupils (60%) and eight male pupils (40%) who participated in the study were also taking Geography at Ordinary Level. This meant that there was an increase in the number of females who were taking Geography at Ordinary Level and this was also an indication of gender awareness whereby females were now encouraged and given the opportunity to do more challenging subjects like Geography. Pupils also constituted the largest proportion of respondents which was 66.7% whilst teachers and head of departments constituted 26.7% and 6.7% of the total respondents, respectively.

#### 4.3 Distribution of respondents by professional qualification

**Table 4.2** shows distribution of respondents by their professional qualifications.

(N=10)

Professional Qualification	Teachers		Heads of Department		Total Frequency
	Frequency(F)	Percentage%	Frequency(F)	Percentage%	
Diploma	5	50	1	10	6
BED	2	20	1	10	3

MED	0	0	0	0	0
Other	1	10	0	0	1

Five teachers indicated that they held a diploma as their highest professional qualification and they accounted 50% of the respondents. Two teachers (20%), held the Bachelor of Education Degree as their highest professional qualification. None of the respondents held a masters and one teacher (10%) held a degree in Geography and Environmental Studies. The results also revealed that one head of department (10%) held a diploma whilst the other, (10%) held the Bachelor of Education Honors Degree in Geography.

This information implied that there was a great crisis or shortage of highly qualified teachers as most teachers were not furthering their professional qualifications. A few geography teachers furthering their professional qualifications meant that Geography education was being compromised in schools.

#### **4.4 Distribution of respondents by teaching experience**

(N=8)

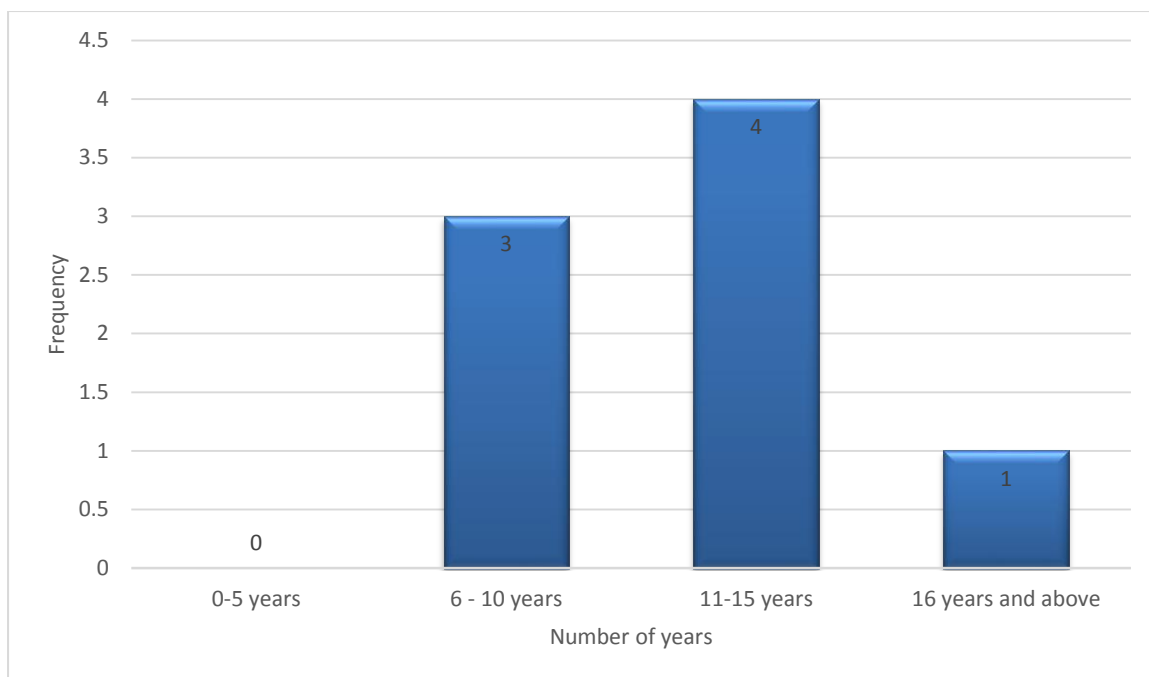


Figure 4.1 demonstrates the distribution of teachers by their teaching experience

Figure 4.1 presented the distribution of geography teachers and head of departments by their teaching experience. The study revealed that none of the teachers had been in service for five years and below, three teachers (37.5%) were in service for 6-10 years, four (50%) of the respondents constituted teachers who were in service between 11-15 years and one teacher (12.5%) had 16 years and above teaching experience.

These results revealed that less number of Geography teachers had been recruited into the education system during the last five years. This may be because of the current situation in the country whereby the Ministry of Education had not been recruiting teachers during the past few years. The implications to these findings were that fieldwork implementation was being compromised in schools because the young active teachers who had recently graduated from universities had not been incorporated into the education system. Schools were therefore flooded with old aged teachers who preferred and depended mostly on the traditional methods of teaching.



#### 4.5 Teachers' views and attitudes towards fieldwork

Table 4.3 shows teachers' views and attitudes towards fieldwork

(N=8)

NO	ITEM	SA	A	N	DA	SD
1	There is an improvement in learners' performance after implementing fieldwork in the teaching and learning of physical geography	4 50%	2 25%	0 0%	2 25%	0 0%
2	Fieldwork is time consuming	4 50%	3 37.5%	0 0%	1 12.5%	0 0%
3	Learning outdoors motivates pupils	3 37.5%	4 50%	0 0%	1 12.5%	0 0%
4	Fieldwork is demanding	2 25%	5 62.5%	1 12.5%	0 0%	0 0%
5	Large classes at Ordinary Level hinder the effective implementation of fieldwork	5 62.5%	3 37.5%	0 0%	0 0%	0 0%
6	Schools do not have adequate facilities to implement fieldwork	4 50%	4 50%	0 0%	0 0%	0 0%
7	There are other better ways, other than fieldwork to teach the practical aspects of Geography	2 25%	1 12.5%	0 0%	3 37.5%	2 25%

8	Fieldwork is very risky	3 37.5%	3 37.5%	2 25%	0 0%	0 0%
9	Fieldwork should continue to be implemented in physical geography	1 12.5%	6 75%	1 12.5%	0 0%	0 0%

Table 4.3 shows the views and attitudes of teachers towards the implementation of fieldwork. Four teachers (50%) strongly agreed that there was an improvement in learners' performance after the implementation of fieldwork. Two teachers (25%) also agreed to this notion whilst none of the respondents (0%) remained neutral. Two respondents (25%) disagreed and none of the respondents (0%) strongly disagreed on the item. This implied that most teachers were in line with the view that fieldwork improved learner performance in physical geography. One teacher commented, "*Fieldwork helps in bringing reality in the study of physical geography and makes pupils understand the environment surrounding them.*" The research also revealed that one quarter of the respondents did not agree with the item hence this compromised the implementation of fieldwork as some teachers did not consider it to be essential.

The study also revealed that four respondents (50%) strongly supported the idea that fieldwork was time consuming. Three teachers (37.5%) were also in agreement with this item. None of the respondents (0%) remained neutral whilst one (12.5%) totally disagreed. This implied that, fieldtrips required meticulous planning which was very time consuming. On the other hand, this also compromised fieldwork implementation in schools since school time tables do not always accommodate fieldtrips. It was therefore clearly revealed by the research that time consumption was also one of the major limitations of fieldwork implementation.

The research conducted also aimed at revealing whether pupils were motivated through outdoor learning or not. Three respondents (37.5%) strongly agreed whilst four (50%) agreed. One respondent (12.5%) disagreed and no one strongly disagreed or remained neutral. Most respondents supported this idea and highlighted that pupils felt freer to participate outside the classroom, and even the slow learners can actually follow and easily describe what they were actually seeing. There would be more pupil-pupil interaction as well. However, some teachers indicated that fieldwork did not motivate pupils. This may imply that those who considered fieldwork not motivating would not want to implement it.

Two (25%) strongly agreed and five (62.5%) agreed that fieldwork was demanding. One (12.5%) remained neutral while none of the respondents disagreed or strongly disagreed to this view. This clearly indicated that fieldwork was demanding. The issue of seeking parental consent, administrative procedures, transport costs as well as the need to ensure the safety of pupils whilst on a field trip were some of the major demands associated with fieldtrips.

Five respondents (62.5%) strongly agreed and three (37.5%) also agreed that large classes hindered the effective implementation and use of fieldwork. None of the respondents disagreed to this view. This was because most Ordinary Level geography classes were characterized by very high teacher-pupil ratios. Most respondents indicated that they had a teacher-pupil ratio of 1:40. Large classes, therefore implied that it would be expensive to provide adequate transport for all pupils. Field activities may also be difficult to undertake since big classes are difficult to handle.

Four out of eight teachers (50%) strongly agreed that schools do not have enough resources to facilitate proper implementation of fieldwork. Four respondents (50%) also agreed to this view none of the respondents remained neutral nor disagreed. This is because fieldwork required equipment such as measuring tapes, modern technologies such as geographical

information systems. Some schools did not afford to purchase these equipment for each and every pupil. As a result, pupils ended up sharing equipment and this eventually affected the implementation of fieldwork.

Two respondents (25%) strongly agreed, on the view that there were other better methods to teach the practical aspects of Geography. Three respondents (37.5%) disagreed whilst two respondents (25%) strongly disagreed to this view. This implied that, of all the methods that could be used in the teaching and learning of physical geography, fieldwork was the best as it exposed the pupils to the real environment. Other methods such as the lecture method could be used, however, fieldwork yielded the best results as it helped in marrying theory and practice.

On the view that fieldwork was risky, three respondents (37.5%) and three respondents (37.5%) strongly agreed and disagreed respectively. Two respondents (25%) were neutral, and no one neither disagreed nor strongly disagreed. This implied that, fieldwork required more safety measures and the teachers should ensure every pupil's safety whilst on a fieldtrip, however this was usually compromised by very high teacher-pupil ratios. High teacher-pupil ratios prevented the teacher from keeping a close watch on every pupil. Travelling was also associated with very high accident rates that put many pupils at risk.

Most respondents were in agreement with the view that fieldwork should continue to be implemented in their schools since one respondent (12.5%) and six respondents (75%) strongly agreed and agreed respectively. However one teacher (12.5%) remained neutral. This was a clear indication that fieldwork was really necessary in the teaching and learning of physical geography since the majority of teachers felt that it should continue to be used.

#### **4.6 Responses on the level at which pupils were introduced to fieldwork**

N=20

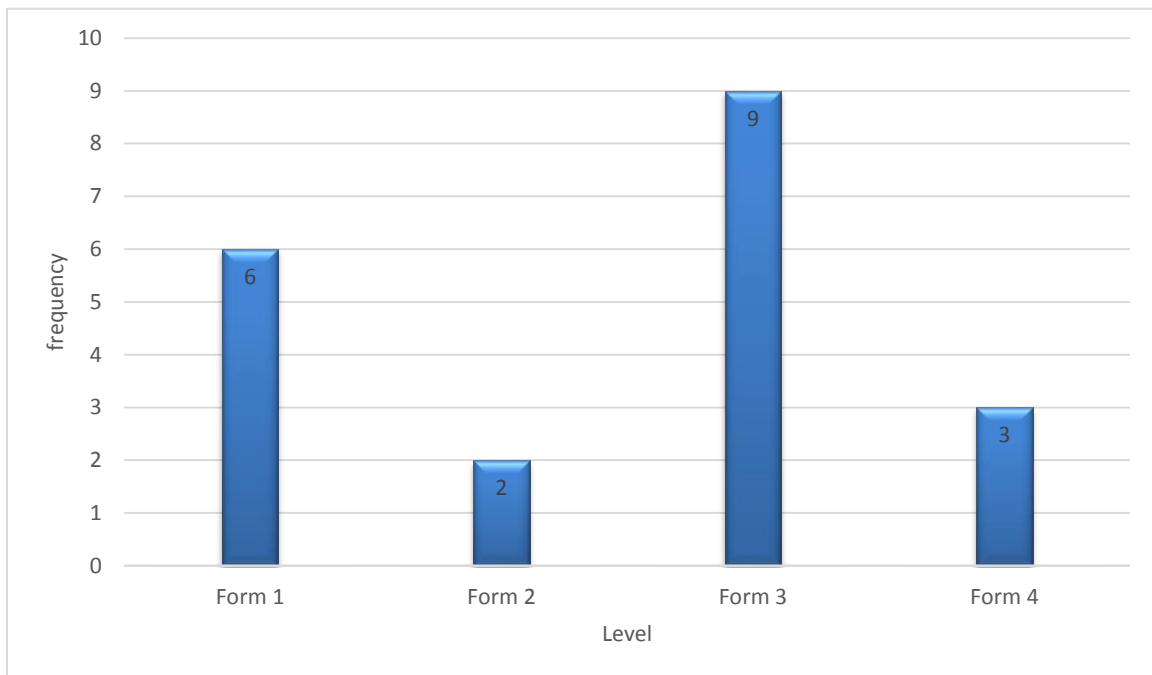


Figure 4.2 illustrates the pupils' responses on the level at which they were introduced to fieldwork.

According to the findings of the study, six pupils (30%) indicated that, they were introduced to fieldwork in their first year of doing Geography (Form 1). Two pupils (10%) started going for fieldtrips at Form 2 level. The majority of pupils, nine (45%) were introduced to fieldwork at Form 3 whilst three (15%) started going for fieldtrips in their final year of Ordinary Level (Form 4). According to the results of the study most pupils were introduced to fieldwork at a later stage (Form 3). This meant that Geography was mainly taught within the classroom and learners were given less time to explore the environment.

#### **4.7 Teachers' responses on seeking parental consent**

The study also investigated whether parental consent is sought in schools before embarking on fieldtrips. The table shows the responses of teachers on the issue of seeking parental consent

Table 4.4 shows teachers' responses on seeking parental consent  
N=8

Response	Yes	No
Frequency	6	2
Percentage	75	25

According to the information gathered, most teachers and school authorities sought parental consent before taking pupils out for a fieldtrip. As indicated by the table, six (75%) of the teachers always sought permission from the parents whilst two (25%) did not seek permission. The majority of respondents indicated that it was very crucial to be granted permission by parents especially when travelling long distances with pupils. Those who said that they did not seek parental consent gave reasons such as, they conducted short distance fieldtrips which usually involved touring around the school or nearby areas. These trips did not necessarily require permission from parents since they were conducted within a short geographical area and were usually the safest.

#### **4.8 Frequency of fieldwork use by teachers**

(N=8)

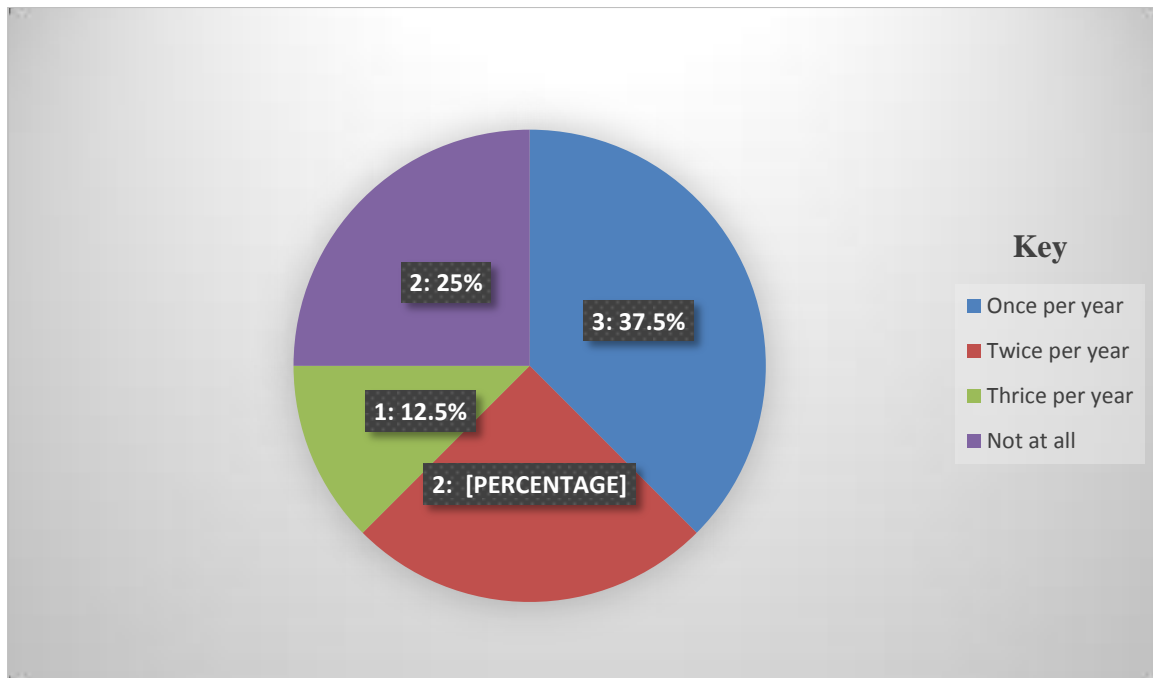


Figure 4.3 shows teachers' responses on the frequency of fieldwork use

Six out of eight teachers (75%) indicated that they used fieldwork in the teaching of physical Geography, however the research also revealed that some teachers conducted fieldwork more often than others. The study also revealed that only two (25%) teachers did not use fieldwork at all during the course of the year. Most teachers, three out of eight (37.5%) indicated that they conducted fieldtrips in physical Geography once per year. One respondent in this category had to say, *“We do not conduct fieldwork more often at our school because of lack of support from the administration. The administration often takes too long to make decisions and may also fail to fund and provide transport for pupils.”* This showed that most teachers conducted fieldwork less often, not because they did not want to, but mainly because of various challenges that included lack of funding as well as the administrative procedures associated with the execution of fieldwork.

Two of the eight respondents (25%) indicated they conducted fieldwork in physical geography twice per year. Only one teacher (12.5%) conducted fieldwork thrice per year.

This also showed that geography was mostly taught using the traditional methods, such as the lecture method hence learners were deprived the opportunity to be in contact with the real environment. This also resulted in most learners performing poorly in physical geography since examinations often required them asked to describe and what they have never seen but only read in text books and heard from the teacher.

#### 4.9 Pupils' responses on enjoyment and significance of fieldwork use in Geography learning.

Table 4.5 shows pupils' responses on enjoyment of fieldwork

(N=20)

Response	Frequency	Percentage
Yes	18	90
No	2	10
Total	20	100

It was also the aim of the study to establish whether pupils enjoyed learning outside the classroom or not. Eighteen pupils (90%) indicated that they enjoyed learning outside the classroom whilst two pupils (10%) did not enjoy learning outside the classroom. Pupils who found outdoor learning exciting gave reasons such as,

- a) Fieldwork helped them to understand the environment in which they lived in.
- b) The lessons were more interesting as they were able to express their ideas.



- c) Fieldwork boosted their self- confidence since they were in charge of their own learning
- d) They were also able to understand the concepts of physical geography better since they could see the real things rather than imagining things that they read from textbooks.
- e) Fieldwork gave room for more pupil-pupil interaction as they worked together in groups

Pupils also gave their views on the effect of fieldwork use on their performance in physical geography. One pupil responded, *“It was because of the fieldtrip that we conducted last term that I managed to score a better mark in map work in the mid-year examinations.”* Map reading and interpretation was one of the most challenging section of the physical geography paper hence when pupils were given the opportunity to explore the landscape, it became easy for them to identify various landforms on a given map. This definitely improved their performance in the subject.

The study also revealed that some pupils did not find learning through fieldwork interesting. One pupil also had to say, *“It is difficult to concentrate outside the classroom as there are many things which are not part of the lesson that may attract pupils”* Other pupils did not find learning through fieldwork interesting and they gave reasons such as, it was too noisy and some pupils misbehaved making it difficult for other pupils to concentrate. Pupils also indicated that going for fieldtrips during examination times was a waste of time as they were not able to fully concentrate on the goal of the fieldtrip worrying about the coming examinations. Another pupil also indicated that some even carried reading notes on a fieldtrip.

#### **4.9.1. Teachers' responses on enjoyment and significance of fieldwork in the teaching and learning of Geography**

The research also investigated whether teachers also enjoyed fieldwork execution or not. The results of the study are shown in the table below.

Table 4.6 shows teachers' responses on enjoyment of fieldwork execution

Response	Frequency	Percentage
Yes	5	62.5
No	3	37.5
Total	8	100

From the results obtained, as shown by the table, five out of eight teachers representing 62.5% enjoyed executing fieldwork whilst three (37.5%) did not enjoy executing fieldwork. This implied that many teachers enjoyed teaching using fieldwork hence they were comfortable with implementing it.

Teachers who enjoyed executing fieldwork indicated that teaching through fieldwork was very easy and interesting as it helped in bringing reality in the study of physical Geography through marrying theory and practice. They indicated that it is very easy for them to explain physical geography concepts using fieldwork as pupils could see what the teacher would be talking about on the real ground.

In addition, another teacher had to say, *“Physical Geography is quite difficult and tricky as compared to human geography, therefore, it is very essential for pupils to see the real objects and processes as it is easy to remember what they see rather than what they read from books.”* This was also an indication that fieldwork use was essential in the teaching and learning of physical geography.

Development of basic skills in pupils was another significance of fieldwork that was stated by teachers. According to the teachers’ response fieldwork provided pupils with basic skills with which to study the environment. These included skills of observation, researching, measuring, recording, drawing and sketching, communicating, problem solving as well as personal and social skills.

On the other hand, the study revealed that some teachers did not enjoy teaching using fieldwork because they believed that it wasted a lot of time for both teachers and pupils. The issue of syllabus completion was also the other reason why most teachers did not enjoy executing fieldwork. Teachers indicated that they were usually under the pressure of completing the syllabi hence undertaking fieldtrips was considered wastage of time and gave them more pressure.

#### **4.9.2 Views of HODs on significance of fieldwork use on pupils’ performance**

In response to the interviews conducted, all HODs were in agreement with the view that fieldwork was significant in the teaching and learning of physical geography aspects hence they appreciated its use in their schools. One HOD indicated,

*“Failure to adopt the modern methods of teaching such as fieldwork and the continuous clinging of teachers to the traditional methods of teaching which are usually teacher-centered is one of the major reasons why pupils continue to have*

*problems in understanding physical geography concepts. This is resulting in very low pass rates in Geography hence reducing the number of pupils who would want to take Geography even at Advanced level.”*

This response clearly showed that fieldwork was really important as it helped pupils in understanding the physical geography concepts as well as improving their performance.

#### **4.9.3 Fieldwork and pupils’ performance in Geography**

The heads of department (HODs) also gave an analysis of pass rates in physical geography since they started considering the use and value of fieldwork at their schools. The percentage pass rates over a period of five years were summarized and presented in the graph below.

(N=2)

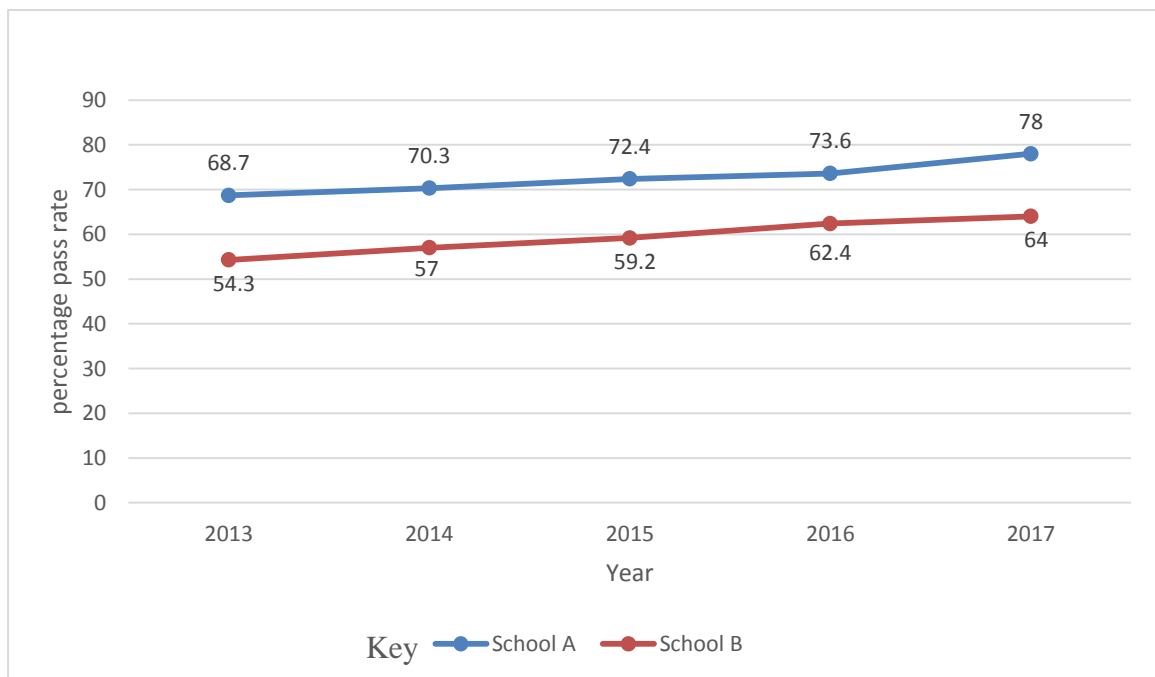


Figure 4.4 shows the percentage pass rates of Schools A and B since the introduction of fieldwork.

As shown by the graph, in 2013, school A had percentage pass rates of 68.7%, 70.3% in 2013, 72.4% in 2014, 73.6.4% in 2015 and 78% in 2016. The school had been experiencing increased pass rates in geography since their pupils started going out for field activities. This was a clear indication that the implementation of fieldwork improved pupils' performance in geography.

Furthermore, the use of fieldwork at school B led to an improvement in the performance of pupils. School B had pass rates of 54.3%, 57%, 59.2%, 62.4% and 64% in the years 2013, 2014, 2015, 2016 and 2017 respectively. According to these findings, School B also experienced increased pass rates in Geography and the use of fieldwork being also one of the reasons why performance was increasing.

#### **4.10 Challenges faced by teachers in implementing fieldwork**

Fieldwork implementation continues to face challenges in schools. It was also the aim of the study to investigate the various challenges faced in fieldwork execution. This section presents some of the common challenges highlighted by most teachers.

##### **4.10.1 High teacher-pupil ratio**

As revealed by the findings of the study, very high pupil-teacher ratios were one of the major problems faced in fieldwork execution. The table below shows the teacher-pupil ratios of the respondents.

Table 4.7 shows teachers' response on teacher- pupil ratio

(N=8)

Teacher-pupil ratio	Frequency (F)	Percentage (%)
1:30 and below	0	0

1:31-35	1	12.5
1:36-40	2	25
1:41-45	3	37.5
1:46-50	2	25
1:50 and above	0	0

The table above showed that none of the teachers had a teacher- pupil ratio of 1:30 and below, one teacher (12.5%) had a teacher-pupil ratio of 1:31-35, two (25%) had a teacher-pupil ratio of 1:36-40, three (37.5%) had a teacher-pupil ratio of 1:41-45, two (25%) had a teacher-pupil ratio of 1: 46-50 and none of teachers had a teacher-pupil ratio of 1:50 and above.

According to the information displayed by the table, most teachers had very high teacher-pupil ratios hence they felt overloaded. The expected teacher-pupil ratio for field activities of 1: 20 and below no longer existed in schools and it was therefore difficult for a single teacher to attend to every pupil's individual needs.

The teachers also indicated that very high teacher-pupil ratios compromised the effective implementation of fieldwork. The larger the class, the larger the groups became hence it was a challenge for the teacher to effectively monitor and guide each and every group during data collection. Large classes were also a problem on the issue of sharing research instruments resulting in many pupils not getting access to them.

An investigation on how teachers dealt with large classes during fieldwork was also done. The study revealed that six out of eight teachers (75%) divided their classes into groups and pupils collected and recorded data in groups. However, one respondent indicated, "*Dividing pupils into groups will not give the teacher the satisfaction that every pupil in the group has*

*understood the concepts, because some pupils may remain passive during the group discussions but the teacher will not notice it.*” Although the strategy of grouping had its limitations, the study revealed that teachers considered it a better approach to deal with large classes during fieldwork.

#### **4.10.2 Inadequate research instruments**

Research instruments are vital during the data collection hence the researcher saw it necessary to investigate whether schools had adequate research resources or not. The table below shows the results of the study according to the teachers’ responses.

Table 4.8 shows teachers’ response on adequacy of research instruments

(N=8)

Response	Yes	No
Frequency	0	8
Percentage	0	100

As shown by the table above, all teachers (100%) indicated that the research resources for fieldwork were inadequate in their schools. This implied fieldwork implementation was being largely compromised by shortage of research resources which was mainly attributed by very high pupil-teacher ratios that existed in schools.

### 4.10.3 High pupil-item ratio

N=8

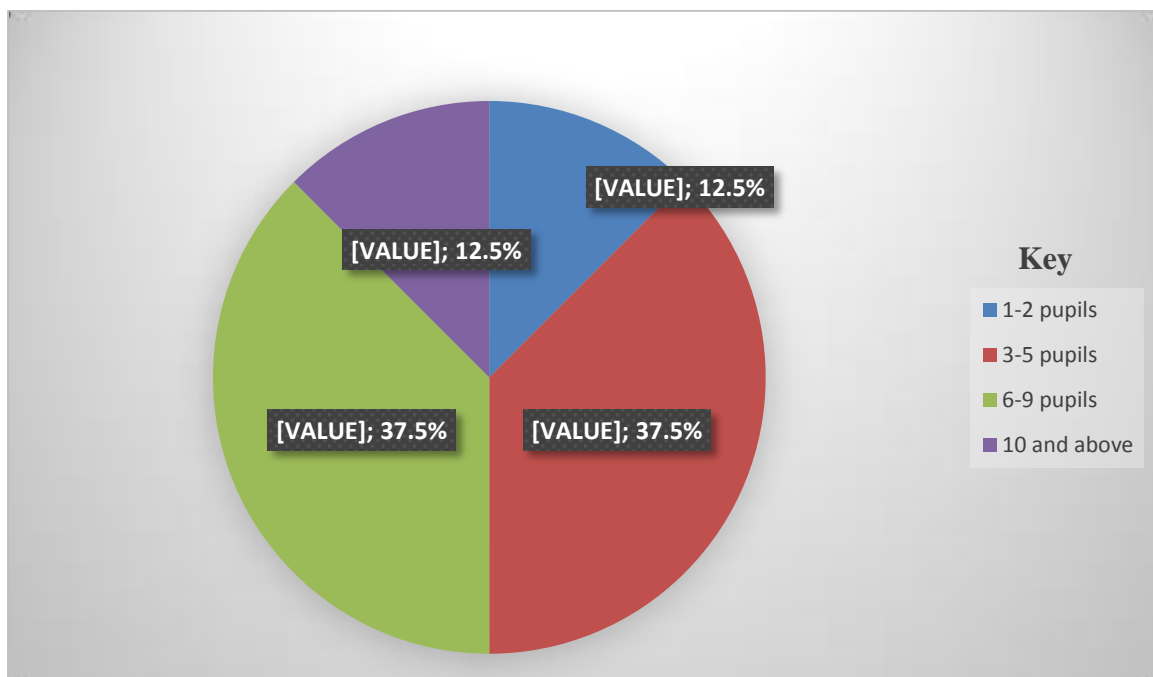


Figure 4.5 shows teachers' responses on pupil-item ratio during data collection

From the findings, it was noted that, one teacher (12.5%) indicated that the pupil-item ratio during data collection was 1-2 pupils per item. Three teachers (37.5%) indicated that they had a ratio of 3-5 pupils per item. Three teachers (37.5%) also indicated that they had a pupil-item ratio of 6-9 pupils per each research item. One teacher (12.5%) also revealed that more than 10 pupils would share one research instrument during data collection in the field. These



findings proved that there was lack of research of instruments in schools that is why the majority of teachers indicated a high pupil-item ratio when it came to sharing research instruments. This may have been attributed by lack of funding in these field activities as well as the large classes that existed in schools.

The respondents were also asked to explain how these pupil-item ratios affected pupils' learning and fieldwork implementation. They indicated that these high pupil-item ratios resulted in most pupils being idle and passive during the whole process of data collection due to limited access to research instruments. This also resulted in aimless wandering of the pupils and making it more difficult for teachers to control the groups. The study also revealed that shortage of research instruments also compromised the safety of pupils because when pupils were idle they engaged in some dangerous activities without being noticed by the teacher.

#### **4.11 Challenges faced by HODs in implementing fieldwork**

Responding to an interview, all HODs (100%) highlighted that, lack of finance to purchase research instruments was also one of the major challenges faced by the Geography department since the school usually directed most of its finances to other departments such as the Science Department. One HOD also had to say, "*Whilst there are three science labs at the school, the geography department has none.*" This implied that, unequal distribution of resources in school had also contributed to some departments such as the Geography department having inadequate resources.

One Head of department (50%) also indicated that many parents failed to pay for fieldtrips in time whilst some did not pay at all. This resulted in HODs having difficulties in planning and organizing the fieldtrips. This may imply that some fieldtrips ended up being cancelled or postponed due to the fact that only a few pupils would be paid up.

Another respondent (50%) argued that some of landscapes such as hills, mountains and kopjes were far of reach especially in urban areas hence posed challenges for teachers and pupils to visit and access them. This implied that short distant fieldtrips were being compromised due the highly urbanized landscape.

#### **4.12 Challenges faced by pupils in fieldwork implementation**

Pupils also highlighted the challenges that they faced during fieldwork implementation. One pupil (5%) indicated that she was allergic to some plants that existed on the environment, hence she could be affected when she went out for field activities. All pupils (100%) also stated the challenge of having inadequate resources. One pupil also recognized the impediment of having few teachers or patrons to control them during field activities. Four pupils (20%) revealed that they lacked proper guidance from their teachers during data collection in the field. Six pupils (30%) also highlighted that their school bus was too small hence it could not accommodate many pupils when going for a fieldtrip.

#### 4.13 Respondents' views on the most challenging fieldwork stage

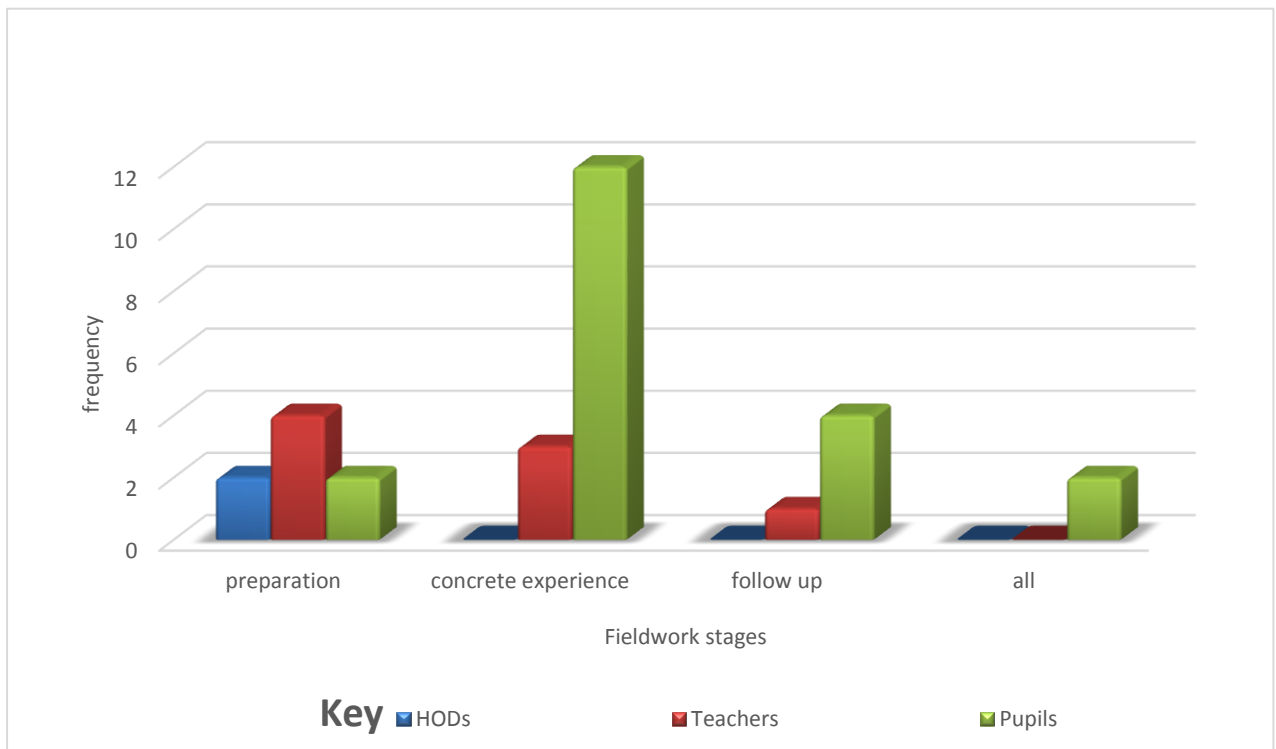


Figure 4.6 shows the respondents' views on the most challenging fieldwork stages.

An investigation into the stages where HODs, teachers and pupils normally faced challenges was also conducted. The study established that all HODs who participated, (100%) faced challenges on the preparation stage, none of the HODs had problems during the concrete experience stage or actual implementation of fieldwork and the follow up stage. For HODs, the preparation stage was the most difficult one because this was the stage where all arrangements such as organizing transport, food as well as research instruments to be used during the fieldtrip were done. In most schools, it was usually the role of the HODs to organize and make sure that all the requirements were available before pupils were taken for a fieldtrip. One HOD, responding to an interview had to say,

*“Organizing and planning is the most challenging task and tiresome part of the fieldwork phases. Improper planning will result in failure of the other phases of fieldwork implementation.”*

According to the results of the study, HODs did not face challenges during the phase of actual fieldwork implementation because it was now the responsibility of the teacher conducting the fieldtrip to take care of the requirements during the trip.

Teachers also gave their views on the most challenging phase of fieldwork implementation. Out of the eight teachers who participated in the study, four (50%) faced more problems during the preparation stage, three (37.5%) found the phase of concrete experience or the actual fieldwork implementation most challenging, one teacher (12.5%) had difficulties on the follow up stage and none of the teachers had problems at all the various stages of fieldwork implementation.

The study revealed that most teachers (50%) faced problems during the preparation stage. This was because teachers were also actively involved in the planning of a fieldtrip to make it a success. Planning, on the part of the teacher involved formulation of objectives for the fieldtrip as well as making sure that the research equipment for data collection was available. It was also revealed by the study that the phase of actual fieldwork implementation was also a challenging one to teachers. The possible reasons for these results were that, this is the stage whereby teachers had to deal with very large classes in data collection and it was usually difficult for them to control the large classes. The teachers also had to ensure the safety of each and every pupil during the fieldtrip. The other reason was that, some schools did not have adequate research instruments hence made it difficult for a large class to share these resources.

Two pupils (20%) indicated that they had problems during the preparation stage. This was so because this is the stage where pupils and teachers sought parental consent before embarking on a fieldtrip hence a some few parents would deny their children this opportunity due to

various personal reasons. However, twelve pupils (60%) faced problems during the concrete experience phase. One pupil responded,

*“We have difficulties in data collection because our teachers do not clearly explain to us what we are supposed to do. We do not know what to record and how to record it.”*

This was an indication that pupils lacked proper guidance from their teachers during field activities hence this also compromised the learning process.

It was also revealed by the study that four pupils (20%) experienced problems during the follow up stage where they were supposed to provide feedback by submitting a report or a presentation on what they had gathered from the field. Pupils experienced problems at this stage because some of them would not have fully participated during data collection due to shortage of research instruments. Two pupils (10%) indicated that they faced problems during all the stages of fieldwork execution.

#### **4.14 Teachers’ responses on other approaches used to teach physical Geography**

Previously, on the item that, there are other better approaches to teach physical Geography, three (37.5%) of the teachers agreed whilst five (62.5%) disagreed. Those who agreed gave the following reasons:

Some respondents highlighted that they were the teachers of the 21<sup>st</sup> century where technology has expanded, therefore rather than taking pupils for outdoor learning, it was better to make use of technology in order to save time and money as well. For example using

a power point to show an erupting volcano or a river flowing in a very faraway place which is out of reach.

Having a geography laboratory was also one of the other approaches suggested by some respondents to teach the practical aspects of physical geography. They highlighted that experiments could be easily done in a laboratory and every pupil would be able to carry out and observe the processes, for example weathering processes such as freeze-thaw and exfoliation could be done in a lab through alternate freezing and thawing of water in a rock's crack or an alternate change in the temperatures the rock is being exposed to.

However, the majority of teachers believed that fieldwork was the best approach to teach physical Geography as it enabled the pupils to see, touch and observe the real or actual things in their environment.

#### **4.15 Views of pupils on how to enhance fieldwork implementation in schools**

To enhance fieldwork implementation, twelve pupils (60%) felt that parents should pay their fees in time so that the fieldtrips are well prepared and arranged in advance. Lack of finance was one of the major hindrances to effective fieldwork implementation hence when fees is paid in time it will also be easy for the school to organize these fieldtrips. All pupils (100%) also stated that schools should provide adequate equipment for pupils undertaking field activities. Three (15%) highlighted that the school should purchase a bigger bus that accommodates many pupils when going for a fieldtrip. Pupils also explained that guidance from the teacher was essential for the fieldtrip to be successful and meaningful. Three pupils (15%) also highlighted that the schools should employ patrons who would assist teachers in the field.

#### **4.16 Views of teachers on how to enhance fieldwork implementation in schools**

Two teachers (25%) felt that, parents should always be involved in planning fieldtrips since they were the ones who financed them. To support this view, one respondent had to say, *“It is very difficult for one to go against and fail to support his or her own plan,”* therefore it necessary to involve parents in planning these trips through the School Development Association (SDA).

Four teachers (50%) suggested that workshops should be conducted to equip them with fieldwork implementation skills. They felt that teachers should be given the opportunity to attend workshops and should also be given sufficient time to learn. Four teachers (50%) also highlighted teamwork as another strategy to enhance fieldwork implementation. They indicated that teamwork was necessary when dealing with large classes during data collection. Two or more teachers would help each other to control and manage the class.

The issue of overloaded timetables was also one of the major reasons why teachers ignored the use of fieldwork because they would be in a rush to complete their syllabi. Therefore three teachers (37.5%) suggested that the Ministry of Education should recruit more teachers to reduce the burden on the currently employed teachers and address the issue of overloaded timetables.

#### **4.17 Views of Heads of Departments (HODs) on how to enhance fieldwork implementation in schools**

Equal distribution of resources was also one of the points raised by all the Heads of Department (100%). Instead of directing all resources to one department only, it was necessary for schools to distribute their resources equally among all the departments.

Fieldwork implementation in many schools usually faced the problem of lack of resources and research instruments due to this unfair distribution of resources in schools.

Responding to an interview, one HOD (50%) also highlighted that most teachers from universities and colleges were not well trained in executing these fieldtrips. They suggested that tertiary institutions should make sure that their graduates are well equipped with the knowledge of conducting fieldtrips before they graduate. Whilst still on training, teachers themselves should be given the opportunity to go for fieldtrips.

To support the point raised by pupils on lack of the teachers' guidance, one HOD (50%) indicated that fieldwork needed dedication from the teachers. Dedication leads to creation of extra time for those pupils who need help. Dedication was needed in all the phases of fieldwork implementation that is from the preparation stage to the follow up stage.

#### **4.18 Discussion of findings**

This study aimed at analyzing the implementation of fieldwork in the teaching and learning of physical Geography at Ordinary level. Data was collected from various selected schools in Gweru District.

The data collected revealed that fieldwork was known and was being conducted in all the schools. The majority of respondents indicated that they enjoyed this method of teaching and learning since it helped learners to quickly grasp the concepts in physical Geography, develop interest in the subject and eventually yielded excellent results. This is supported by Job (1999) who stated that fieldwork bridged the divide between the classroom and the real world and also helped to reinforce learners' understanding of geographical terminology and processes.



According to the findings of the study, most field trips were being conducted once a year, usually at the end year when lessons had ceased and pupils had finished writing their examinations. This was in line with Fletcher et al (2003) who stated that most schools often undertook fieldtrips annually at the end of the academic year. These trips were normally referred to as ‘trips of the year’. These trips however, did not usually have stated goal or objectives, follow-ups were not made and most stages for proper fieldwork implementation were skipped and not observed.

The study also found out that, fieldwork in schools was conducted less frequent since it continued to face challenges in its implementation. Fagerstam and Samuelson (2012) highlighted that fieldwork was greatly compromised by large classes. It was also revealed by this study that teachers who conducted fieldtrips were also having difficulties in managing their classes during data collection. Most schools in Gweru District were characterized by very high teacher-pupil ratios which ranged from 1:30 pupils up to 1:50 pupils and above. This was a clear indication that teachers were overloaded during fieldwork implementation. This in turn had also led to shortage of research instruments and had resulted in more than five pupils sharing research instruments during data collection.

The other challenge that was affecting the implementation of fieldwork was the unequal or unfair distribution of resources in schools. Schools tended to neglect other subjects such as Geography and directed most of the school resources to subjects such as Physics, Biology and Chemistry. The situation in Gweru District was also in line with the study conducted by Kanyampa (2011) in the Zambian High Schools of Lusaka and Kafue District who was of the view that, most Geography teachers were not well versed on the implementation of fieldwork as there were no workshops that were being conducted in the District. This was also greatly

affecting the implementation of fieldwork in Gweru District schools as teachers had little knowledge on how to implement it.

The study also found out that schools were flooded with old aged teachers who were not furthering their education. This meant that fieldwork implementation was being compromised since the young and active teachers were not yet deployed in schools. However, Ngcamu (2000) disagreed with this finding and stated that qualification did not mean competence. His study revealed that most teachers were qualified and had knowledge about fieldwork yet their excuses showed that they did not undertake fieldwork. Other challenges faced in fieldwork implementation that were revealed by the study include financial constraints, poor support from the administration, overloaded timetables and limited time due to the need to complete the syllabi.

According to the results of the study, fieldwork implementation needed to be enhanced in schools. The school timetables had to accommodate fieldwork so that its implementation did not disturb other lessons that had nothing to do with Geography. Respondents also indicated that parents should also take part in planning these fieldtrips since they were the ones who financed them. It is also important to note that teamwork and grouping helped in reducing the challenge of dealing with large classes during field activities. This was supported by Irving (2017) who stated that, if the number of learners was too large, the teacher might divide the class into various groups and assign a different task in each group so that all learners would be occupied with something meaningful.

It was also essential for teachers to further their education in Geography so that they were equipped with various skills which helped them in fieldwork implementation. Teacher qualification is also a key aspect in the teaching and learning of physical geography since pupils pick and learn a variety of skills from their teachers. A research conducted by

Kanyampa (2011) revealed that most degree holder teachers were aware of the importance and requirements of fieldwork prior to their training from the University. Pupils taught by less experienced teachers also experienced problems during data collection since their teachers were not fully aware of the requirements of fieldwork implementation. Ngcamu (2000) disagreed to these findings and revealed that one's level of qualification did not mean that he or she could implement fieldwork well.

Despite the several challenges noted, head of departments, teachers and pupils felt that fieldwork was the right approach in the teaching and learning of the practical aspects of physical Geography and were in agreement with its continual use in their schools. Respondents therefore felt that fieldwork implementation should be enhanced in order to achieve excellent results in Geography.

#### **4.19 Summary**

This chapter presented the data collected from the two schools understudy. The data was presented in form of graphs, pie charts, figures and tables. Using themes, codes and patterns the chapter also discussed and analyzed data under the subheadings derived from questionnaires and interview questions. A discussion of the major findings of the study was also made. The next chapter gives a summary of the whole research, conclusions drawn and the recommendations.

## **CHAPTER FIVE**

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## *SUMMARY, CONCLUSIONS AND RECOMMENDATIONS*

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### **5.0 Introduction**

Chapter 5 presents a summary of the study and highlights its major findings .The chapter also presents conclusions drawn from the results .Lastly, recommendations are drawn from the conclusions.

### **5.1 Summary**

The study was carried out to analyze the implementation of fieldwork in the teaching and learning of physical Geography at Ordinary level. The research was conducted in two schools from Gweru District and it focused on Geography Heads of Department, Geography teachers as well as pupils doing Geography at Ordinary Level.

The study was consisted of five chapters. Chapter 1 looked at the background of study where the broad foundation of the study was laid. The statement of the problem was also outlined in this chapter and it highlighted the gap that existed in relation to fieldwork implementation. It also gave an outline of the research questions and these allowed the researcher to gather data on the nature of fieldwork implementation in schools, the value of fieldwork in the teaching, challenges faced in implementing fieldwork as well as the various ways that could be used to enhance fieldwork implementation in schools. The significance of the study was provided as well and the beneficiaries from research findings were mentioned. Limitations and delimitations of the study were also outlined. The chapter also defined the terms that were used in the study. A summary was provided at the end of the chapter.

Chapter 2 gave a review of related literature on the analysis of fieldwork implementation in physical Geography .The concept of fieldwork was discussed as well as the rationale for its

inclusion in Geography teaching and learning. The various stages of fieldwork implementation that is, the preparation stage, concrete experience and the follow up stage were also outlined. The chapter also gave a discussion on the constraints associated with the implementation of fieldwork and these included, financial constraints, lack of resources, dealing with large classes, limited time, issues of liability and parental involvement and lack of administrative support. Various strategies to enhance the implementation of fieldwork were also discussed and a summary was provided at the end of the chapter.

The research methodology was explained in chapter 3. The study made use of the descriptive survey research design. The sample constituted thirty respondents, twenty Geography pupils, eight Geography teachers and two Geography head of departments. The random sampling method, snowball and purposive sampling techniques were in the selection of pupils, teachers and heads of department respectively. Questionnaires were used to gather data from Geography teachers and pupils and Heads of Departments were interviewed through the use of an interview guide. The chapter also explained how the researcher ensured validity and reliability as well the research ethics that were taken into consideration. The data collection procedure was also outlined and this involved seeking permission from the responsible authorities namely, the Midlands States University, the Ministry of Primary and Secondary Education, the Midlands Provincial Education Director, the school authorities as well as the participants who took part in the study.

The data collected from respondents was presented, analyzed and interpreted in the fourth chapter. The major findings of the study were that fieldwork was known by almost every Geography teacher, however it was being used less often in the teaching and learning of physical Geography as teachers felt that it was time consuming and demanding as well. Issues such as less parental involvement, financial constraints, poor administrative support,

high teacher-pupil ratios and inadequate research instruments were also among the several constraints to fieldwork implementation revealed by the study. Respondents also highlighted the benefits of fieldwork implementation and also gave their views on how to enhance its implementation. Though there were other approaches such as the use of Geography laboratories or information communication and technology (ICT) to show the various physical processes, most respondents considered fieldwork as an effective strategy in the learning and teaching of physical Geography and still advocated for its continual use. The data collected was presented in form of tables, graphs and pie charts and was analyzed through themes, codes and patterns. A summary was also provided at the end of the chapter.

Chapter 5 gave a summary of the whole study, gave conclusions as well as the recommendations based on the conclusions drawn. The study concluded that fieldwork was being used less frequent in schools due to various constraints and demands associated with its implementation. The study therefore recommended that workshops on fieldwork implementation should be done more frequently in schools and school timetables should be designed in a way that fieldtrips are also accommodated.

## **5.2 Conclusions**

1. It was established by the study that most teachers are familiar with the concept of fieldwork, however they used it in the teaching and learning of physical geography less often. It was shown that those teachers who conducted fieldwork did not fulfil the number of times that were usually recommended.
2. The study also revealed that during fieldwork implementation, teachers did not give pupils the necessary guidance and support they required mainly because the teachers themselves were not well versed or fully equipped with the fieldwork implementation skills.

3. It was also revealed by the study that most Geography teachers also failed to execute fieldwork in schools mainly due to financial constraints associated with poor administrative and parental support. This was also one of the major reasons why fieldwork was conducted less frequent in schools.

### **5.3 Recommendations**

From the above conclusions, it was recommended that:-

1. School timetables should accommodate, create or allocate more time for fieldwork. This arises from the finding that teachers conduct fieldwork less often since they feel that it is time consuming and will hinder them to complete the syllabus in time.
2. Universities and teachers' colleges should include field project when training geography teachers. This will increase the field experiences for these student teachers and they will be able to understand its significance and implement it better in the schools they will be enrolled.
3. Workshops should be done more frequently in schools to equip teachers with the necessary knowledge and provide teachers with guidelines on what should be done during fieldwork implementation.
4. It is also necessary to improve the school administrators' understanding of the importance of field work in the Geography curriculum. This arose from the finding that, most school administrators did not support their teachers when it came to field work implementation.
5. Geography teachers should resort to teamwork during fieldwork implementation. This arises from the finding that, teachers were finding it difficult to handle their large classes at once resulting in aimless wandering of some learners during field activities.

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Appendix 1

MIDLANDS STATE UNIVERSITY  
QUESTIONNAIRE FOR GEOGRAPHY TEACHERS

My name is Sipiwe Dube currently doing Bachelor of Education Honours Degree in Geography at Midlands State University. I am carrying out a study on the implementation of fieldwork in the teaching and learning of physical Geography at Ordinary level. You have been selected to take part in the study and your assistance will be greatly appreciated. You are also assured that the results of the study will be used for academic purposes only and will be treated with strict confidentiality.

**Date:** .....

**Section A: Socio Demographic information**

**Note: Please tick in the appropriate box**

**Sex:** Male  Female

**Teaching Experience:** 0-5  6-10  11-15  16 and above

**Highest Professional Qualification:**

Diploma  B ED

M ED  Other  Specify.....

**Section B**

**1. Do you use fieldwork in the teaching of physical geography?**

YES  NO

**2. If yes, how often do you conduct fieldwork in physical geography?**

.....

**3. Do you enjoy teaching and executing fieldwork?**

YES  NO

Give reasons for your answer.....

**4. In what ways is fieldwork significant in the teaching and mastering of physical geography concepts to learners?**

.....  
.....

.....  
 .....  
**Answer the following questions using the Key below by ticking your responses in the appropriate box**

**Key;** SA (*Strongly agree*)                      A (*Agree*)                      D (*Disagree*)                      N  
 (*Neutral*) SD (*Strongly Disagree*)

<b>NO</b>	<b>ITEM</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>DA</b>	<b>SD</b>
1	There is an improvement in learner performance after implementing fieldwork in the teaching and learning of physical geography					
2	Fieldwork is time consuming					
3	Learning outdoors motivates pupils					
4	Fieldwork is demanding					
5	Large classes at Ordinary Level hinder the effective implementation of fieldwork					
6	Schools do not have adequate facilities to implement fieldwork					
7	There are other better ways, other than fieldwork to teach the practical aspects of Geography					
8	Fieldwork is very risky					
9	Fieldwork is the best strategy to teach physical geography					
10	Fieldwork should continue to be implemented in physical geography					

### SECTION C

1. Which other approaches do you normally use in the teaching and learning of the practical aspects of physical geography?

.....  
.....  
.....

2. Why do you prefer those approaches to fieldwork?

.....  
.....  
.....  
.....

3. What constraints do you face when executing fieldwork at Ordinary level?

.....  
.....  
.....  
.....

4. At which stage of fieldwork execution do you normally have problems?

.....

Give reasons for your response.....

6. What is the pupil-teacher ratio? .....

7. How do you deal with large classes when conducting fieldwork?

.....  
.....  
.....

8. Do you have adequate research instruments at your school?

YES [ ] NO [ ]

9. What is the pupil-item ratio during fieldwork implementation?

1-2 pupils per item [ ]                      2-5 pupils per item [ ]  
6-9 pupils per item [ ]                      10 and above [ ]

10. Do you seek parental consent before conducting a fieldtrip?

YES [ ] NO [ ]

Give reasons for your response.....

.....  
.....

12. How can the implementation of fieldwork be enhanced at your school?

.....  
.....  
.....  
.....

Thank you

## **Appendix 2**

### **Interview guide for Geography Heads of Department**

1. As a department, how do you help and encourage teachers in implementing fieldwork?
2. Learners are encouraged to develop discovery learning. What merits do learners accrue from fieldwork as a teaching method?
3. How effective is fieldwork in the teaching and learning of the practical aspects of geography?
4. How has pupils performed in Geography since you introduced the use of fieldwork?
5. What challenges do you face in organizing fieldtrips?
6. At which stage of fieldwork implementation do you normally face problems? Why?
7. What do you think can be done to enhance the implementation of fieldwork?

Thank you



## Questionnaire for Geography pupils

### SECTION A

Indicate the correct response by putting a tick in the space provided.

1. Female  Male
2. When did you start going for fieldtrips meant for physical Geography at your school?  
Form 1  Form 2   
Form 3  Form 4  Other  Specify.....

### SECTION B

1. Do you feel comfortable with learning outside the classroom? Give reasons for your response  
.....  
.....
2. How often do you go for fieldtrips at your school?  
.....
3. What challenges do you normally face whilst on a fieldtrip?  
.....  
.....
4. At which stage of fieldwork implementation do you experience challenges? Give reasons.....  
.....
5. What do you think can be done to improve fieldwork implementation at your school?  
.....  
.....  
.....

Thank you