



BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

DEPARTMENT OF CURRICULUM AND MANAGEMENT STUDIES

An investigation on the impact of socio-economic background on biology students' academic performance at form three (Ordinary level) in Insiza District schools. Matabeleland South Province.

By

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REQUIREMENTS OF BACHELOR OF SCIENCE HONORS DEGREE IN BIOLOGY

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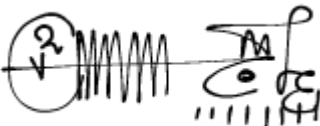
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I **VURA ISHMAEL**, with registration number **B1542609** do hereby declare that the critical analysed and examined work which is contained in this investigation and or research project is myself made work which is only validated by researched and acknowledged scholar quotations and references whose sources have been acknowledged . I further hereby declare that this work has not and or never been previously submitted to any university, hence submitted in partial fulfilment of the Bachelor of Science Honors Degree in Biology at Bindura University of Science Education.

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Date.../...../...2024...



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DEDICATION

This research work is dedicated to my dearest families, The Makohliso family and Vhura family (also known as Mutyandasvika family) who sacrificed everything for my academic endeavours.



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ABBREVIATION/ ACRONYMS

BEAM	Basic Education Assistance Module
EFA	Education for all
MOPSE	Ministry of Primary and Secondary Education
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UPE	Universal Primary Education
WHO	World Health Organization
TCD	Teacher Capacitation Development
STEM	Science Technology Engineering And Mathematics



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CHAPTER 1

THE PROBLEM AND FOUNDATION OF ITS

CONTEXT

1.1 Title

An investigation on the impact of socioeconomic background on biology students at form three (Ordinary level) at Siyazama Secondary School.

1.2 Abstract

The study looks on the impact of socioeconomic status or background on students studying biology at the Ordinary level in form three at Siyazama Secondary School, which is located in a rural area administered by the Insiza Rural District Council. Students studying biology continues to struggle due to the school's remote location and the nature of the course as an empirical science. Students in rural schools face a number of hurdles that diminish their prospects of academic success. School infrastructure such as laboratories, classrooms equipped with science materials, libraries, and science-related textbooks, particularly biology-related textbooks, ICT gear such as Personal Computers and Wi-Fi connectivity for research.

The current government under its National Strategic Development Goals (NSDGs) has made quite a plethora of policies in the Ministry of primary and secondary education ,that are meant to try and eschew the challenges being faced by students who are studying biology as an empirical science. Students who study biology continue to lag behind due to the geographic location of most of these schools in particular Siyazama



Secondary which is situated in the remote peripheral zone of the country. It is fundamental to note that the community has made some efforts to try and address these challenges and in this context, the study outlines the different ways which are being put into action such as building classrooms using locally available resources, well-wishers from the community especially those who are originally from the community but managed to move to the other side of the country, that is, the diaspora, commonly known as Injiva in the native language of the Matabeleland South.

This study will deeply investigate how socioeconomic status affect the academic performance of students studying biology at form three level. The main target area will be Siyazama Secondary School in Insiza Rural District Council in the Matabeleland South province of Zimbabwe. The study shall make sure that a qualitative approach is the main technique to search for responses and quantitative technique is fused in to ensure acceptability of conclusions being made, the study shall ensure varied sources of data are used, this is referred to as triangulation of research instruments to ensure credibility and trustworthiness of research findings or conclusion

1.3 Background to the study

It is imperative to outline that the study or investigation will be carried out in a rural school and the researcher is stationed in a rural working environment. For a better understanding of this study, the term rural should be outlined first, the term rural can be defined on account of geographical location, regionally and then continental context. According to Bryden (2001) a rural area is defined as “low population density or a percentage share of the workforce employed in agriculture”. In the Zimbabwean context



a rural area is defined as a remote place that do not have access to basic requisites of life which include proper sanitation, infrastructure basically in this century and or decade. In the Zimbabwean construct, cultural preservation makes it difficult to readily define a rural area, A rural area in this study can be defined as an area of land whose inhabitants occupied the land on the basis of inheritance from their historic ethnic or tribal inheritance and the on the basis of land reform programme with the former being reserves and the latter being resettlements ,therefore upon occupation of the land aided by the land restitution bases little development was done as they lack basic tar roads, bridges and clinics ,the schools contain either just one 1 block or 2 whose subdivision into classes can either be 2 or 3 classrooms. Rural schools therefore can then be defined as areas which were later formalised by government and parents whose wish is to have their children accessing education. These can be defined as farm schools.

Academic achievement among students who study biology at Siyazama secondary in form three is low as students come from a society where learner have low motivation, financial support from their parents as well as the school nature and composition ,that is, shortage of chairs and man power facilitators. According Hattie (2009) academic achievement refers to performance outcomes that indicate the extent to which a person (student) has accomplished specific goal that were the focus of activities in instructional environments. According to Gross (2010), the white settlers influence and the consequent correlation between wealth and education meant that those who come from the lowest strata of economic wealth accumulation or the povo, will have their learners performing poorly or underachieving. This factor influence the mind and behaviour hence diverting the focus and attention of learners. Socioeconomic



considerations or background also play a significant role as a determinant factor in a learner's academic progress. According to Spaul (2013), socioeconomic status can be defined as a person's overall social position, to which attainment in both the social and economic domains contribute. Zappala (2002) contends that a learner's academic achievement reflects the socioeconomic status of their parents and/or the family as a whole. Notably, Bayat et al (2014) state that affluence and occupational status lead to higher academic achievement, whereas poor rural communities and students from low socioeconomic backgrounds perform the worst. On an observational view, of course there are some schools that are located in rural areas and their catchment area being a society with families that are on lower economic strata but under these circumstances, these learners perform or have a higher achievement attributed to learners' academic natural gift which forces or pressure them to perform better. The pressure pushes them to reach a turning point where they seek to achieve and be positioned to ensure that they become a fortune in their family. There is a factor called societal benchmarking where learners under the force of being better and be like other prominent individuals of influence who came from poor backgrounds but they made it to defy the odds.

Another important area where the consequences of socioeconomic background are addressed is inclusive education. Equity and social justice in education are central to inclusive education (Engelbrecht, 1999; Swart and Pettipher, 2005). Inclusive education is a social movement that aims to give all students the opportunity to pursue their academic dreams. Inclusive education acts to eliminate barriers to learning and increase access and participation in school by students who study biology. (Artiles and Kozleski, 2007; Booth, 2000) Inclusive education strives to ensure that every student



regardless of background or life talents, is included in the educational cycle by being present, participating, and performing well.

According to Todd (2007), the context of participation is an all-encompassing aspect because it increases the involvement of students and parents in playing a constructive active vital role in school decision making, learning, and the development of the school as a whole.

Social mobility projects which try to ensure that people move from one strata of the economy moving up the strata encourages learners as it addresses issues of underachievement on the students learners side. Social mobility programmes also enhance an upgrade of learners` economic status. However if the circumstance are what they are as in Zimbabwean situation, where rural school do not have facilities such as sporting facilities, computers, laboratories or even quality teacher s as generally rural schools due to shortage of man-power, they employ school leavers who are assimilated through the school development committee (SDC) , All this is an academic injustice on the part of learners as personnel not fully qualified to deliver using the couth pedagogies will be used to deliver content and the end result being leaners failing to completely grasp.

This research was conducted at Siyazama Secondary School in Matabeleland South province in Insiza District at Lochard village. The area falls under Insiza Rural District Council. They area has 11 villages where 3 of the 11 villages are located on the edges of Matabeleland North but they fall under the catchment area of Siyazama Secondary School. The rural area despite being 80km from Bulawayo along Bulawayo along-Harare road 110 km from Gweru. The school is a farm school formed after the historic



Zimbabwe land reform programme or redistribution popularly known as the 2000 land reform programme where there was land restitution. In this case land restitution, refers to the transfer of land from the hands of the white minority settler regime to the hands of the black majority the land being cattle paddocks since the province is a cattle ranching zone. Little development was done and areas which were horse stable and cattle feed storage facilities because of the large empty single standing buildings were converted to schools. The house mainly built from locally manufactured brick thatched with grass obtained from the local area with only a handful built on modernity. These features indicate households with low socioeconomic status. The area being a rural was formed on the basis of the land reform programme, there is wide spread illiteracy, lacking skills, spreading of sexually transmitted diseases such as HIV and AIDS as upon the formation of settlement there was no access to health awareness and the social overdrive of wanting to experience new situations where once married woman and once

1.4 Statement of the problem

The Zimbabwean education system has been viewed as the superior since the transfer of power from the white minority to the hands of the black majority. It is applauded among countries in the SADC region and Commonwealth, when Zimbabwe was a member but this has since changed due to the debilitating state of the economy and the values as well as the Ministerial policy framework. The nature of what is to be taught keeps on changing, that is, the nature of the curriculum from Education for all (EFA), Education with production, education 5.0 to the current Competence Based Curriculum. All these changes debilitate the education system, affecting learning of student studying biology at rural school. Most of these policies in education were however never



given a chance to mature and have their implication as they were half way implemented. Another area of educational recommendation which was meant to address the situations in the education system in Zimbabwe is failure to address the submissions of the Nziramasanga Commission of inquiry into education of 1999-2000 period. Most of the underperforming schools are situated in these rural areas save for those built on missionary grounds such as most Roman Catholic and Seventh Day Adventist and other privately owned whose resource mobilisation is not dependant of the government, where issues of poverty are addressed by the school having direct resources mobilisation by the government have poor results especially the students learner as compared to their counter parts, that is, private schools and other government urban schools. Most of the rural schools have a common trait of poor service delivery and the socioeconomic background included being lack of basic services and other related factors may all contribute in influencing academic performance of students studying biology in a school located in the rural area. According to Small (2014) a bigger percentage of developing school that are publicly owned or that are owned by the government lack functioning libraries others in the rural use pit latrines and they are not connected to electricity and running water which is normally supplied by sources such as boreholes. The study investigates how some of these gross or socioeconomic issues affect the academic performance of students studying biology rural school resulting in their under achievement compared to their urban and peri-urban counter parts. It is crucial to note that the government should consider these factors and as a result they should proffer pragmatic solution such as financial assistance as a way of bridging the gap between these inequalities



The rate of biology being dropped from the list of examination is unparalleled, as these students lack motivation to continue their academic path because there is no simple motivating motive in their social background. Those that excelled in school never rose to prominence. According to Creswell et al. (2007), learners who come from educated households tend to do well since they are comfortable with the learning environment because they experience it at home, whereas individuals who come from uneducated families rarely participate in anything related to education. There are multiple reasons that could lead to poor school performance, and it is critical to consider these various challenges. According to McKay (2015), poor schools are located in rural areas and they are the schools that often struggle to attract teachers. Highlights that poor schools are in the rural areas and they are the schools that often struggle to attract teachers.

According to the Constitution of Zimbabwe, the national objectives, Section 27 under the education and subsection 1(a), "the state must take all practical measures to promote free and compulsory basic education for children and subsection 2, the state must take measures to ensure that girls are afforded the same opportunities as boys to obtain education at all levels. Furthermore, The Constitution of Zimbabwe(2013) chapter 4 section 74 subsection 1 further state that every citizen and permanent resident of Zimbabwe has a right to a basic state funded education , including adults basic education and subsection 4 outlines that the state must take reasonable legislation and other measures outlining the limits of the resources available to it, to achieve the progressive realisation of the right set out in subsection (1).Academic under-achievement of learners in most rural school is due to the factors mainly linked to socioeconomic status. Students underachievement is linked to socioeconomic factors



such as poverty and unemployment on the family to which learners come from, these have a direct influence on the quality of education which learners have access to (Du Plessis, 2014:1109). It is imperative to note that, This research finding examines whether facilitators and stakeholders inform equity and quality of education received by learners in turn leading to good performance of schools.

A closer look at these issues, if not addressed by either the government, community leaders and any responsible authorities, the national overall pass rate of the students' children will decline and resulting in gender imbalances in terms of economic intergrability. Furthermore, students in the spheres of the economy will feel demotivated as their number will start to dwindle. Another notable effect is the government does not solve the issues on an emergency basis is the rise in cases of students' learners being pregnant, getting married at a tender age and also the increase in students to male dependant (that is the famine to masculine dependence). In a factual nutshell, the government should under the current Transitional Stabilisation and Nation Strategic Development Goals (NSDG) seek to address the socioeconomic factor by introducing facilities that promote students' child involvement in the science learning academic streams through the continuous funding of public learning as done through the Basic Education Assistance Module (BEAM) scheme. Policies that support the girl child and organisations such as SAYWHAT Nongovernmental organisation which educate students on health and pregnancies. Moreover, the government should mobilise funds to build infrastructure and make sure that all the facilities that support for modern education are made available.



1.5 Research questions

- How does socioeconomic factors affect the performance of students studying biology?
- What are the internal cause for underachievement at Siyazama Secondary School?
- What measures can the school put forward to address internal challenges which cause underachievement in biology?

1.6 Aim and objectives

- To critically examine how socioeconomic factors affect biology students at Ordinary level
- To investigate how Education policies through the constitution and ministerial acts address the issue of academic underachievement among the biology students in rural areas.
- To widely identify the challenge that cause for academic underachievement at Siyazama Secondary School.

1.7 Rational of the study

This study is of great importance factoring out that the basic Zimbabwean education requires urgent policy attention since there had had dynamic systematic changes in Zimbabwean education, that is , from the Education for all to the current Competence Based Curriculum (CBC) , according to Chapter 4 section 75 of the constitution of



Zimbabwe, every citizen and permanent resident of Zimbabwe has a right to a basic state funded education, Also chapter 2 section 27 subsection 2 outlines that the state must take measures to ensure that students are afforded the same opportunities to learn, this further makes the study more relevant as it seeks to decipher and proffer solutions to challenges faced which are in the parameters of the law. In support of this constitution, the study helps fulfilling the outlined chapter of the nation`s supreme law of the land.

According to Kubatana.net (2023), a fundamental report was made on challenges being faced by learners who are st rural schools around Zimbabwe, The Kubatana.net report articulated that rural school in Zimbabwe face numerous challenges which stifle the learning process thereby resulting in poor education or academic underachievement. These challenges range from shortage inadequate to unavailability of empirical science facilities and for those subjects related to the pure science,

It is therefore imperative to note that the study seek to be of use if the key identified factors are to be addressed pronto. The continuous evidence based academic struggle in most due to socio economic background, it is important for an analysis on these challenges being faced by biology students be critically analysed and have an appreciation on pragmatic factors that hinder performance and formulate solutions.

1.8 Delimitations of the study

The research will be focusing on the impact of socioeconomic background on biology students who are in form three (Ordinary level) at Siyazama Primary School in Matabeleland South Province, Insiza Rural District in Zimbabwe. The study will be carried out among form three learners who are left with a year to seat for their final



public examination. The delimitation of study will consist of the head of department for science (HODs), the researcher will target empirical science department facilitators and two will be selected and two members of the School development committee, these shall represent what the researcher term as a partial group as they both double as parents or guardians and the school's external administration. Then another two members from the internal school administration .Within the sample the researcher will chose to select a further 10 students who are then further divide into 2 variables with each variable containing 5 members. The main purpose of centring the study at Siyazama Secondary school is to ensure that transport cost and other expenses that require logistics are placed on a fact check. All this enables easy monitoring of the study so as to check progress as well as be able to reach the required time to complete the study.

1.9 Limitations of the study

The study or investigation was undertaken at Siyazama Secondary School in Matabeleland South province of Zimbabwe, it is imperative to note that the structure, nature and factual fact of information gathered on that particular area cannot be wholly externally validated (generalised) to all other rural school in the other 9 provinces of Zimbabwe whose ethnicity, natural resource abundance vary and economic factor of inter-grability vary. The challenges social and economic are varied. The investigation did not pay attention to other factors such as learners internal gift where learners can even perform better even under unfavourable educational conditions but due to their inborn



ability to perform better .On a notable fact, future investigation or information factual exploration shall compare different variable between all learners.

1.10. Definition of key variable

Education

According to the great philosopher Plato cited in Hegel's "Philosophical Propaedeutic" (1986), education is the capacity to feel pleasure and pain at the right moment as it develops in the mind and soul of a learner. In the same vein, "Education is the socially organized and regulated process of continuous transference of socially significant experience from previous to following generations. The main way to receive an education is to take a course of training in the system of educational institutions" (Naziev, 2017).

Biology

According to Campbell (2013) Biology is the study of everything that is, or was once, alive whether it's a plant, animal or microorganism. In the same vein University of Minnesota Duluth (2022) outlines that biology is the study of life, where the word "biology" is derived from the Greek words "bios" (meaning life) and "logos" (meaning "study").from the above we can deduct that biology is the study of living things through experiment.



Biology student

According to Wilson (2002) a 'biology student is one who seeks to understand the intricate web of life, from molecules to ecosystems and applies this knowledge to better comprehend the natural world and our place within it'

- Socioeconomic status
- According to Spaull (2013), socioeconomic status can be defined as a person's overall social position, to which attainment in both the social and economic domains contribute. It is the total wealth and social status position within a person, family and or nation.

Academic achievement

According Hattie (2009) academic achievement refers to performance outcomes that indicate the extent to which a person has attained the desired score or set standard within a test item. It is the position of attaining the best desire set and grade in a given area under study, marked as a percentage or graded using a symbol such 1, 1.1 or an A representing the best grade and U the last grade.

- Academic underachievement according Hattie (2009) academic underachievement refers to performance outcomes that indicate the extent to which a person has failed to attain the desired score or set standard within a test item

Rural school

According to Bryden (2001) a rural area is defined as "low population density or a percentage share of the workforce employed in agriculture". In the Zimbabwean context a rural area is defined as a remote place that do not have access to basic



requisites of life which include proper sanitation and infrastructure ,the above therefore entail that a rural school is a place located in the remote area, providing learners with a chance of acquiring knowledge.

School development committee(SDC)

It refers to a group of members from the community, selected to help monitor school progress or development

1.11. Reliability and validity

According to Smith (2015) validity refers to the integrity and application of methods undertaken and the precision in which the funding accurately reflect the data. In the same vein, Patton (1999) sees validity refers to accuracy or correctness of the funding. The study will adopt strategies which make the authenticity, integrity and or accuracy be unequivocally and unquestionable. The strategies include accounting for personal biases which may have influenced findings; respondent validation

If the study is to be of high profiled integrity, the respondent must be given the opportunity by inviting them to have a say on the questions script and content in question, whether it reflect the actual fact under investigation. This action in tandem with the Smith (2015) ,when he articulated that it is important that all qualitative research incorporate strategies of a study during research to enhance the credibility of a study during research designs and research implementation.

Patton (1999) outlines that for research reliability there should be the different methods which could be used to ensure the reliability and viability of a research study. It is imperative say that for there to be highest degree of accuracy in the study parameter



Patton (1999) triangulation should be used, this according to his outline refers to using multiple data sources in an investigation to produce understanding. On an important note, Triangulation of facts involves the complete use of multiple sources of data, checking their consistency in being standardised as they explain one argument but using similar facts whose application varies not on a bigger proximity.

1.12. Chapter Summary

This chapter vividly looked at the available literature which vividly gives a connection between the instigations problems and the existing thought about written facts. The study interrelated various scholars existing in the world and gave a careful analysis of the problem understudy. The study was questions where given an analytical diagnostic and this created a different picture on the side of the researcher as sound views about the topic were gained. The subsequent chapter shall further vividly outline the mode to which the research was conducted and further explain how data was collected in Insiza district using the carefully selected research tools followed by the analysis and presentation of data

CHAPTER 11

REVIEW OF RELATED LITERATURE

2.1.0 Introduction

A literature review is an outline of the related accounts of what has been published by different researchers and scholars which is related to the study. The first chapter of this research paper clearly outlined by laying the foundational direction of this research through the clearly stated key elements ,that is , the elements found in the introduction, background of the study, statement of the problem, objectives, questions and



significance of the study, its delimitations and limitations. This particular chapter discusses the study's theoretical framework and pragmatic literature on the correlation of socioeconomic background and academic achievement in secondary school level of education. A plethora of relevant publications that relate to the study shall be investigated and worked on in trying to let the study have validity.

2.1.1 Related research studies.

A plethora of research studies have been done on the impact of socioeconomic background of students on their performance in scientific studies, specifically empirical areas like biology. Studies and written reports indicate that there are socioeconomic factors on the learner's side that impact how they affect their studying of biology at form three. Before digging deeper into the context, there is further need to look into the education system of Zimbabwe, looking into the school structures.

2.1.2 Overview of the Zimbabwean schools.

Basically Zimbabwe has four types of schools set up, there are public schools, and these are classified into two sections that is government and council schools. The other category is that of private schools, they are run by private players in business. The other category is that of church owned schools especially the catholic and Seventh Day Adventist church (SDA) and there are boarding schools mainly they are run partially by the government and in some instances there are companies that help in funding these school.

2.1.3 Theoretical framework

It is fundamental to understand that theories are crafted and designed to explicitly predict, describe and explain existing facts of life until they are well understood.



Furthermore, in many cases and or situations they extend and pose a challenge to existing ideas in the scope of any field. A theoretical framework is meant to outline why a research problem exist. This research paper will critically be guided by two theories as a way of explicitly ensuring research validity. The theories are discussed are the Conflict theory and the Social ecological theory.

2.1.4 The Conflict theory (Karl Marx 1848)

The Conflict theory was propounded by Karl Marx in 1848 as a communist manifesto which was there to critique capitalism of the time where alienation and exploitation of the working class was the order of the day .The theory was further refined by Engels notable in his editorials and seminars with the major one titled ‘The condition of the working class in England’. Karl Marx (1848) Conflict theory posits that social inequality arises from the class struggle between the ruling class which was referred to as the bourgeoisie and the working class which was referred to as the proletariat. In this particular case, the bourgeoisie owned means of production, that is, capital, land and entrepreneurship and this meant that the proletariat has to sell its labour in exchange to wages and salaries as a way to eke a living .Here Marx and Engels (1848) argued that this situation meant that the bourgeoisie were exploiting the proletariat as they took more than they were supposed to and Marx (1848) called it surplus value from labour. Coser (2003) explains that the social inequality is the core value of the conflict theory, where there is unequal distribution of scare resources and power. Marx (1845) as cited in the paper “the poverty of philosophy’. Outlines that the components of inequality were multifaceted that is economic exploitation which happens through the extraction of surplus value unequal ,unequal access to education and job opportunities which limited



social mobility. Shornack (1987) explains that the conflict theory plays a pivotal role in explaining the impact of the socioeconomic background of the learner towards their performance in academics

This research or study uses Karl Marx's Conflict theory to analysis the contextual family structure and the rural nature of Siyazama Secondary 's environment affect the learner's academic performance. It further analyses the conflict which exist between the academic performance and socioeconomic factors.

It fundamental to say that Karl Marx` conflict theory is the pillar and beam which anchors the academic argument of this study, whose notion is that there is a close correlation or interconnectedness of academic performance in Secondary school level of education and learner's background, socioeconomic factors and internal school environment in influencing their academic success.

2.1.5 The Social-Ecological Theory (Urie Bronfennbrenner 1992)

According to Brofennbrenner (1992) social-ecological theory, social-ecological background is a critical factor which influence educational outcomes. Domingos (2018) posits relations to the theory by saying that students from lower socioeconomic background face barriers to academic success. The Bronfenbrenner social-ecological theory offers a nuanced critical understanding of this condition by outlining the vivid interplay between individual, environmental, and socioeconomic factors. Morris (2006) says that Brenfenbreaner's social –ecological theory is a model of five interconnected systems, that is (i) microsystem, which consist of immediate environments, where family, school and peers are critical to learning .(ii) The mesosystem, this consists of the interactions of the micro-systems , that is home-school relationships. (iii)



exosystem, this consist of external influence socioeconomic status, community resources, (iv)macro system which consists of broad societal factors, that is, culture and policy and lastly the chronosystem, these are temporal dimensions like life events and transitions.

The Bronfenbrenner social ecological theory in this study is perceived as a validation and critically crafted set of facts to investigate and explain the impact of socioeconomic background or status in the way learners perform, this is outlined as exosystem. The theory is the anchor to the argument of this research as it clearly show how exosystem factors influence the academic performance of learners.

2.1.6 The state of science education in Zimbabwe.

The scientific education system or the way science subjects are now being learnt in schools, basically rural schools has changed and there are visible areas where these subjects are now being learnt. Nyungu (2016) outlines that since the dawn of a Democratic Zimbabwean state, there are quite a plethora of strides that have been done in the education system of Zimbabwe. According to section 75, subsection 1 of the constitution of Zimbabwe basic education provision to every child in Zimbabwe has been made available and as such, there are some important facts where the government through its Ministry finance allocate some money through its national budget, however despite these efforts, there are still some unequal education qualities. Also to take hide is the fact that the existing inequalities created two separate education worlds, where the urban world has better education while the performance of their rural counter parts more often underachieve. It is important to note that the this particular research paper refers to these impoverishment and low academic



performance as structural inequalities which further result in a complete spatial educational inequalities. The research paper further catalyse the problems of socioeconomic as caused by structural inequalities in the learners background using the case of Siyazama Secondary school in Insiza rural district to uncover these problems.

The research paper depart by giving much focus on the socioeconomic background of students and how this has great influence in the way form three students performe. The research paper used a qualitative factual method of factual inquiry as this is a multi-layered type or system of fact finding technique whose further reaching can crosscut disciplines, subjects, and fields of science. This research paper further dug deep and brought to light that while there are a series of efforts which the government did or has done in trying to supplement the learners' background such that they achieve rather than underachieve.

It is also noted that Siyazama secondary school due to its morphology and location perpetuate the socioeconomic negative impacts. It is also fundamental to note that in order to bring the desired academic performance in the way students perform in biology, policy formulation and practice should become contextually responsive and as such, in an attempt to ensure that learners perform well, despite the background, the government introduced continuous assessment learning activities (CALA) and Basic education assistance module(BEAM).However ,in a nation where students come from different socioeconomic background and have learners perform well in biology ,there are still other factors which still embed their performance. The nation can boast on its strides of performance from advanced policies on inclusivity and making education a



basic human right but despite these efforts , there are still gaps between policy and how they are implemented Dreyer (2008).

2.17 The relationship between socioeconomic background issues and good academic performance in biology.

According to Foster and Smith (2001), 'education exist within a socioeconomic, political, and cultural reality and these force continually impact on the school, and particularly on the education of young children'.

It is fundamental to note that there are distinct and or unique factors that pay a pivotal role in ensuring that students studying biology perform well and or underperform and these include the curriculum itself, the teacher, language, income, gender, race parental level of education, the school and other factors which this study shall critical look into. This study now seeks to dig deeper into the contextual crux by unpacking all the socioeconomic background or status which affect learners performance in biology, with each factor under the socioeconomic background going to fall under its heading to facilitate vivid analysis.

2.1.8 Poverty.

The first factor which is a socioeconomic background factor the study takes a look at is poverty. According to Mojapelo (2018:1) , " the majority of schools in poor and developing countries are still characterized by an inferior quality education and poor learner outcomes owing to an array of contextual realities an factors amongst them high poverty levels and lack of e=adequate educational facilities and resource in schools. Ndebele (2020), explains that poverty as a socioeconomic factor is the



greatest challenge which impact how students perform in science subjects such as biology. The factor mainly affect the biology students literacy, this as heightened by Nbebele (2020) where he said “poverty affect the learners science literacy , indicating that due to limited access to science textbooks and resources materials as students from families with high levels of poverty basically fail to buy science related text books, resulting in students having inadequate science instruction.

According to the United Nations (1990) defines poverty as “a violation of human dignity as it is a lack of basic capacity to participate effectively in society. It further outlines that poverty is not actually having enough to feed, clothe a family not having a clinic and a school, or a job to earn one a living. Kurasha (2015) posits that poverty increases science school dropout rates, limited access to resources such as textbooks, equipment, and biology technology equipment. Poverty is grouped or categorized into two types, there is absolute poverty, this types of poverty is mostly the main cause of destitution and happens when people cannot obtain adequate resources to balance the nutrition and have a certain level of physical health, then the second types is relative poverty basically it’s not visible because it occurs when people cannot enjoy a given minimum level of living standard as determined by the Zimstats through the year to year Poverty Datum line (PDL).

Poverty is a critical factor which impacts how learners perform in science subjects’ .According to Birdsong (2016), cognitive capacity is not just a matter of genetics but strongly influenced by external factors such as exposure to stress and violence, poor nutrition and prenatal drug use. So the above factors show that poverty as a socioeconomic factor has a strong influence on how learners perform overally. Van



Berg et al (2012) states that children whose family is wealthy who poorly perform at the beginning of the year tended to catch up whereas those from poor families who scored performed poorly were unlikely to catch up and are an at risk group. The pragmatic implication here is that learners who are exposed to poverty are more exposed and there are higher chances of underperforming in biology.

2.1.9 Family level of income

Socioeconomic background of students affect their performance in biology as this encompass quality of life, attributes, socioeconomic status affect the overall human functioning, including the mental health. According to Marks et al (2007) the critical component in socioeconomic inequality in education is the material resources .Material resources basically is determined by family level of income, as the standard norm a family whose income level is high has more material resources and a family with low income level has less resource materials, therefore different levels to family income generates a different performance in biology, taking for instance families with low income level`s failure to acquire supplementary materials such as text books for learners to further research given area, families with low income level fail to purchase electronic gadgets such as laptops and smartphones for their children to have access to latest well up-to-date information. Another vivid area which is important to take note is the fact that modern technologies which can now be used in teaching biology for instance PhET interaction simulation, this is a latest learning software which requires data to download and install the latest technology has all biology topics installed and has visuals, sound and demonstrations that help learners to understand since it is a design of varied education media and technology. To represent totality of reality family



income levels affects the students' overall performance in biology.

2.2.1. Parent unemployment

According to the American psychology association (2017), socioeconomic status or background encompasses not just income level but also parental unemployment which poses a major challenge in the way students perform in biology. According to the Zimstats (2020), Zimbabwe economic challenges including high unemployment rates which is over 25% increased the struggles faced by students from unemployment household. Biology as an empirical science requires a lot of input whose main focus and source is anchored on the family financial muscle, the subject requires a plethora of scientific material to be used in laboratories and classrooms when delivering the lesson. On account of these issues, families whose parents are not employed fail to fully fund and equip their children. Kurasha (2015) states that unemployed parents struggle to provide basic necessities let alone educational materials , hindering students ability to excel in biology.

Biology as a practical experiment related subject needs students who engage in frequent seminars and learners who further engage themselves in extracurricular activities. Ndebele (2020), postulate that unemployed parents may struggle to find extracurricular activities, field trips, and science camps which are very necessary and are an essential factor for biology students.

A study by Kurasha (2015) found that students from unemployed households in Zimbabwe scored less significantly lower in biology examination compared to their



peers, in the same vein supported by the ideas of Moyo (2013) who discovered that students who come from unemployed family households reported that higher levels of stress and anxiety which poses a major blow to performance in biology. The stress and anxiety affected the learners' cognitive abilities and academic motivation whose overall negative impact is performance below the set parameter or underachievement.

2.1.2 Social capital

Socioeconomic status or background encompasses the family social fabric and symbiotic correlation; this affects the learners' performance in biology. The social fabric is called social capital. It closely looks at social relationships stronger connections that are found and built among school, parents, students and the community as a whole. According to Coleman (1988), social capital refers to the network relationships and social connections that provide access to resources, information and support, enabling individual or groups to achieve their goals. The study further examines and outlines that social capital emphasizes structural social capital, cognitive social capital and relational social capital. On cognitive social capital, it emphasizes the issues to do with shared values and norms and relational social capital involves trust and cooperation. Chengeta (2020) outlines that students from a social background with strong social connections may access educational resources such as textbooks, online materials, and tutoring.

Consistent with this view, Moyo (2019) states that parental involvement and peer support are social capitals that foster parental engagement and peer networking which encourage students to perform well in biology. In contrast with this view, students from a family whose social network social capital is dissected; families lack support and this fabric is not found and as such their students underperform and fail to excel in



most of the practical and theory biology lessons. The Ministry of primary and secondary education (2020) discovered that learners from poorly social capital balanced background especially those from rural the divide often lack access to quality education especially sciences, resources and social connections. Echoing this sentiment, Mhlanga (2020) writes that traditional norms and values may influence student's interest in biology and science related fields. An analysis of the above fact shows that students who come from a more closely fabric community where learners , parents teachers and the local community all put their heads towards facilitations of learners education are likely to perform well while those from poorly knit-communities and families lack motivation and they underachieve.

2.1.3 Parental education

Learners` cognitive ability emerge during early childhood as a consequence of different in family background and this discrepancy increases as time changes. A study by Kurasha (2015) found that 75% of students with university educated parents scored above average in biology, compared with primary educated parents .Echoing the same sentiments Moyo (2013) reported that students with tertiary education mothers were 2.5 times more likely to pass biology examination. Basically students who study biology at Siyazama Secondary school whose parents have a tertiary base qualification perform better compared to their counter-parts .This line of statistic based is more realistic in that through the circles of group often acquire academic related effort through parent to child reading of books as parents find time to read books with their children. Furthermore parents whose education level is higher for instance in the Zimbabwean context where ordinary level is regarded as an educational standard which is better



such parents basically set their learners on a position academically through helping with assignments (home academic tasks) Ndebele (2020) write that students from families with parents whose academic level of achievement is high have an enhanced cognitive skill , this means that educated parents foster critical thinking and problem-solving skills essential for biology, while on the other side of the coin, those students from less educated families underachieve, the ideas are enlightened by Mapholisa (2020) , who outlined that learners from families with less education often have lower academic expectations here he posits that less educated parents may have lower expectations, negatively impacting students' motivation in biology and the end result being academic underachievement.

2.1.4 Medium of instruction /language

Medium of instruction basically plays a pivotal role in making sure that the content, concepts, and context of a subject are well comprehended by science learners in their acquisition of the subject matter. According to Groepe (2008) English as a medium of instruction is a barrier to learning especially among learners in rural schools. This is much evident at Siyazama primary school where learners basically have limited access to media channels like television where they can hear and see the science related experiments whose presentation has audio and visual at the same time (audio-visuals).Groepe (2008) argues that English language usage as a medium of instruction disadvantage African language speaking children in terms of gaining confidence in the language of instruction and in understanding contents presented in English as they affect the learners cognitive development and academic achievement.

Due to language proficiency where learners are exposed to English only at school, while



their socioeconomic background is mainly characterized by vernacular language. The exposure at school causes a shock and effect to these learners especially biology where words which are hard to pronounce and comprehend their meaning for instance cardiovascular, phospholipids, phosphoglycerate and ribulose biphosphate carboxylase are items which actually take away the student's ability to participate meaningfully in biology and other content.

In light of the factors mentioned above, teachers as knowledge professionals who wish to ensure that learners acquire knowledge they revert to the use of vernacular language, in particular IsiNdebele, it gives learners a sense of which is being taught but this affects learners when it's time for assessment. During assessment learners are supposed to translate the subject matter facts, contents and context into a universal English language and this poses a challenge to learners hence achieving in biology furthermore students engagement in discussions about topics in biology is hindered as they fail to clearly outline facts coupled by shyness.

2.1.5 Parental influence and academic performance.

Outside parent's many feature which play a vital role in shaping the learners academic performance , there is another critical factor which shapes how learners perform , this is called parental influence or involvement, this sounds similar to income level but the factor is a separate idea on its own, it entails the parent's non-financial side.

According to Mahuro and Hungi (2016), parental involvement include the parent's practical effort in assisting the learners in their school work directly as it shapes their interest in learning biology hence overall performance. Kerr (2018) argues that "parent who regularly make it a must that they communicate with their children and discuss



student`s home given tasks and give them gadgets such as their personal computers to research assignment related content create a positive academic performance among their children, where as those parents whose background limits learners continuous communication with parents such as a situation where learners are not allowed to own or use their parents phones create a negative learning environment and at home as these learners less likely to complete school assigned task and projects especially biology task which require more pragmatic involvement.

It is critical to note that when parents create a conducive learning environment which allows learners to actually be in good communication terms with their parents pertaining to school assignments and giving learners study time at home, this makes learners feel their parent`s motivation and this form psychologically communication with learner making them start to perform well, whereas those parents who give their children more time to place as they hardly get much involvement with learner`s work usually underperform.

2.1.6 Equity

Equity and inclusivity in the right of all children to education are fundamental anecdotes which are discussed in most international conventions and treaties all affirmed by most international conventions and international agreements all affirmed by legally binding instruments .According to UNESCO (2014) , argues that states should therefore have an obligation to respect , protect and fulfil the rights of all learners to education .Tuters (2017) , further asserts that some schools are not able to give all the learners a fair chance of learning that promotes excellence to all the learners because the teachers are not trained to further deal with social and economic factors that strongly and



directly affect learners performance in biology .

2.1.7 Internal cause for underachievement at Siyazama Secondary school as a rural based school.

A clear concise discussion on the socioeconomic background was done and highlighted a plethora of factors that fall under the socioeconomic background , but not only does these child background related factors affect learners performance, there are some factors affect learners performance , this factors are within the school its self generally and or partially outlined by Brenfenbreaner's social ecological theory.

2.1.8 Adaptation.

Failure to adapt to change is the first internal factor which the study looks at. According to Du Plessis (2014) the challenge faced by most school from the marginised section of a country, that is rural schools is their failure to establish and sustain educational changes, the school often produce underperforming students. Failure to change involves teachers failing to use current modern technologies and the school structure failing to be in sync with the external world.

2.1.9 Infrastructure

Biology as a science or empirical science which require pragmatic experiments and these can either be laboratory based or outfield based. It is important to note that infrastructure which is designed to suit these experiment should be available. But looking at the nature of the school infrastructure, there is only one build which is shared by many classes and hardly can be it used for experiments.



2.2.1 Resources and facilities availability

The state and quality of knowledge acquisition in biology as an empirical science is affected by availability of resources and facilities which are made available at the school for learners to use during lessons. According to UNESCO (2014), hands-on experiments and interactive learning experiences foster deeper comprehension and improved academic performance. Noting this fact, Siyazama Secondary as a rural based school lack such resources and as such, learners under achieve in biology, furthermore, Lovonen et al (2006) outlines that inadequate resources and facilities hinder student performance, he further asserts that insufficient laboratory equipment, outdated materials and limited access to technology restrict interactive learning experiences

2.2.2 Overcrowding

Rural school are underdeveloped, in the case of Siyazama secondary school which has one fully functional class room block and supplemented by a tent donated by Unicef such a condition means that learners have to be crowded when attending subjects. Fish (2007) outlines that science education and learning environments have to be unique and well designed to suit demands of subject, she further outlines that overcrowding can restrict hands-on experimentation and exploration which are essential traits of biology learning this factor mainly is evident at Siyazama secondary school where form three biology students have to cluster on one text book when doing theory and when doing practical experiments which are mainly carried outdoor in the botanical garden, some learners start behaving in uncouth meaning they less focus and even distract others, to support this view, a research by Johnson (2014) which focused more on cooperative learning and its effects on students outlines that overcrowding negatively impact



students engagement and motivation in biology classes.

2.2.3 Poor influence

Poor influence is another fact at school which has impacted the way learners perform in biology, here within the school, there are no learners from upper grades who have influence learners to perform better, this is evidenced in situations where most of the upper grades dropout of school and speak ill of the school and the ideas being taught at school. This makes learners demotivated to study hard in this area. Also there are situations where learners in the upper classes do not register certain biology for their final public examination and this negatively communicates to form three learners on the nature of the subject and in most cases they develop a negative mood towards the subject.

2.2.4 Motivation

There are activities done by the school which boost the morale of learners and interest in learning, this is called motivation. According to Ryan and Dui (2020) there are intrinsic and extrinsic efforts which are premised at driving students commitment to learning and is often a determining factor in effort in the effort put into academic pursuit. Motivation are acts which attract the genuine interest in learning, motivation actual leads to higher level of perseverance, effort and engagement in school related tasks or activities. When learners are motivated, they basically perform better in education. In cases at Siyazama secondary where most learners are not motivated well as there are no rewards and academic offers for learners who will have excelled in their daily exercises as the school has no funds to just fund speech and prize giving days.



2.2.5 Self-efficacy

According to Polirstock (2017) a student's belief in their ability to succeed academically affects their level of effort persistence and resilience in the face of challenges, this self-belief is generally created by the school's learning environment where there is evidence of those who have made it in life, this is called self-efficacy and it leads to the education of students who are always proactive in school tasks and capable of problem solving but looking at the situation at Siyazama secondary basically, there is no such an environment which allows for learners to develop an academic related self-efficacy.

2.2.6 Quality of teachers and the subject

The major internal cause of underachievement by learners who study biology is related to the quality of teachers, here according to the Zimbabwean situation for sciences to be taught there is need to have a laboratory which is a pre-requisite and mostly there won't be biology teachers and the internal administration assigns teachers who have interest in the subject and while not qualified to teach the subject. Spall (2015) asserts that teachers in third world countries are not usually well qualified to do their jobs. This assertion is highly applicable in situation which surrounds Siyazama Secondary School who find a situation where teachers find it difficult to operate a computer and this basically makes it very hard for the teacher to teach biology because it has computer related content and in addition the use of highly specialized machinery such as microscopes.

2.2.6 Curriculum relevance

Curriculum is a set of dynamic ever-changing learning experiences that are taught learners. According to Tyler (1949), "curriculum is a plan for learning experiences that enable students to attain desired educational objectives in the same vein, Maravanyika



(1995) defines curriculum as a planned and unplanned learning experience, both formal and informal that pupils encounter in schools, aimed at achieving the broader goals of education. The introduction of new STEM based curriculum where sciences were the main major components, has been affected by a series of events at school, where nothing productive has been evidenced from it and the school has done less to show impetus to have the context of the curriculum, this was a communication in the minds of learners that the curriculum is not relevant to real world situation and the mood towards biology hence underachieving

2.2.7 School set-up and underdevelopment

Basically Siyazama secondary is found in the periphery of the country as mentioned by Du Plessis (2014), rural schools are located in areas that are isolated, and in most cases they are underdeveloped they are characterised by poverty, which results in the school failing of focus more on academic performance. The lack of basic infrastructure for roads, electricity, information, and communication, as basics of life makes teachers shun the school.

2.2.8 Measures that the school can put to deal with the problems faced by learners within the school.

2.2.9 Resources optimization

Generally rural school are under developed and there is need too craft school based solutions to this comatose, shortage of biology related equipment restrict biology learning especially in rural areas. Lavonen et al. (2006) stress that resource based factors significantly influence student achievement in science. For biology student to achieve in the subject, there must be resources allotted to laboratory equipment, advanced and modern learning technology.



2.3.1 Teacher professional development

In general schools which offer sciences such as biology should always try to further the teacher's scope of knowledge by prioritizing professional development programs. This idea is in line with Hattie (2009) who outlines that teachers quality significantly impacts students achievement in the same vein as Darling Hammond (2010) notes , " teacher learning is essential for students learning. "this should be done by collaborative planning , workshops and creation of teacher learning communities(TLC)

2.3.2 Pragmatism (Student-centered approach)

Acquiring knowledge is basically to those who are always curious of what observation, this is enhanced by student centered teaching and learning methodology or approach. This approach allows active listening and autonomy among learners. Piaget (1969) emphasized the importance of active learning, where students construct knowledge through experience. The school create an environment has inquiry-based learning as it allows learners to explore more biological content mainly by experimentation and investigations.

2.3.4 Counseling interventions

A variety of approaches that are school based have been drawn to ensure that learners perform better or achieve in their biology related endeavors. In most case rural schools, the predicted achievement and actual achievement is different as such when dealing with student level factors such as motivation, self-regulation, attitudes, emotions, social skills, and counselling related constructs. White et al. (2018) outlines that counseling-based approaches which include both individual and group counselling cover a variety of theoretical perspectives, these include cognitive behavioral, psychodynamic, and humanistic approaches, and these counselling approaches further allow learners to



focus on their studies.

2.3.5 Formative assessment and feedback

Black and Willian (1998) outlines that “formative assessment is essential for promoting students learning and achievement. In order for biology students to understand the concepts and grasp these ideas fully there is need for constructive feedback from learners and the school should ensure that these methodologies are placed in praxis.

2.3.6 Collaborative learning strategies

Johnson and Johnson (2000) found that “cooperative learning promotes social interdependence leading to improved academic achievement, because it inculcate and cultivate a sense of motivation. In addition to that , school should put in place activities which develop collaboration, these include problem based learning, peer to peer teaching and discussions and practical projects all these are school based activities which helps to improve learner academic achievement in biology.

2.3.7 Relevance to the Zimbabwe Education 5.0 heritage based philosophy

The Zimbabwean education system has done a plethora of changes and adjustments meant to ensure that the country develops faster, as such, the government introduced the education 5.0 in 2019.which according to the Zimbabwe Minister of Higher, and Tertiary education (2018) is defined as a heritage based philosophy in shaping future technology through innovation and industrialization.

2.3.8 Education-design strategy

The above study facilitate the education-design strategy aligned to the education 5.0 , which is a heritage based philosophy in shaping technology through innovation and



industrialization. According to Chitate (2016) the teaching of science, technology, engineering and mathematics or “STEM” means that classroom education is designed to equip students with cutting –edge abilities that will enable students to participate meaningfully in both the local and global economies. In light of the above fact, the study helps facilitators and administrators to try and eliminate the challenges faced by students which led them to under-achieve in the science related studies.

2.3.9 Empowering students with practical skills

Having adequate knowledge of the main goals of the Doctrine Education 5.0, it encourage learners to have adequate practical skills for the future of the technology and industrialization, and this research helps to ensure that when policy formulators are putting or laying the foundations of the policy they allocate enough resources towards the education 5.0

2.4.1 Establishment of science related facilities

This study found out that biology as an empirical science which requires science related facilities, as the absence of these in schools result in underachievement and the education 5.0 is to be effected it has to adopt the recommendation of this study and build facilities that enhance experimentation and innovation. According to the Ministry of higher and Tertiary education (2018), The Zimbabwean government plans to build scientific parks and innovation centers at all the institutions of learning as well as industrial parks in each of the country`s ten provinces.

2.4.1 Inclusivity

This study examines the socioeconomic backgrounds impact on academic performance and as such, this examination of these disparities promotes an inclusive



education whose main ethos is the provision of equal opportunities for all learners Moyo (2016), outlines that understanding is a critical factor in achieving the vision of Zimbabwe 5.0

2.4.2 Informed policy decision

The research's investigation on socioeconomic background on how students perform in Biology provide a clear or vivid guide to policy makers and educators on teaching and learning methodologies as well as informed policy decisions when allocating resources and funding education, this can further cultivate systematic targeted interventions to support the disadvantaged students. Chivore (2020) outlines that investigations on the academic performance facilitates the innovative interventions to bridge the socioeconomic status and performance gap.

The investigations from this research study on the socioeconomic background of students and its impacts on performance contributes priceless to the Zimbabwe's Education 5.0 which is a heritage based philosophy , is that , it is there to provide evidence-based solutions meant to address or curb the socioeconomic disparities in Biology education which is an anchor in education 5.0, furthermore, having a clear insight of the complex correlation between socioeconomic status and performance educators and policy makers spear heading the education 5.0 heritage based philosophy can recreate more vibrant inclusive efficient and effective models towards it sound implementation.

2.4.3 Chapter summary

This chapter vividly looked at the available literature which vividly gives a connection



between the instigations problems and the existing thought about written facts. The study interrelated various scholars existing in the world and gave a careful analysis of the problem understudy. The study was questions where given an analytical diagnostic and this created a different picture on the side of the researcher as sound views about the topic were gained. The subsequent chapter shall further vividly outline the mode to which the research was conducted and further explain how data was collected in Insiza district using the carefully selected research tools followed by the analysis and presentation of data.

CHAPTER 111

RESEARCH METHODOLOGY

3.0.1 Introduction

A research methodology is the primary framework to which the study's information and facts are gathered on and enhancing the study to further meet the objectives and have clearly laid down ideas with concise answers to the research questions posed by the



fifth chapter of this study. This study has adopted a qualitative research approach, premised on the fact that data sources will be primary sources and these shall be complemented by secondary sources of data basically the secondary sources will be internet source's and articles either in the form of report articles or journal articles. Books shall be used to further explicitly enhance the study. This chapter explains clearly the methods of data collection, the genesis of this will be the explanation of the study's design, sampling techniques which acts as a total representation of the whole population, techniques and instructions for data collection, ethical issues, validity as well as limitations.

3.0.2 Research design

This study adopted qualitative approach, basically a qualitative research is more befitting to the nature of this study, and furthermore, to make sure that facts are fully dissected upon, an interpretivism paradigm shall be infused or integrated to deep proffer for more information. According to Malinowski (2014), it is an emphasis to subjective interpretations and meaning. In the same vein, Collis and Hussey (2014) posits that interpretivism paradigm is an explanation for social feelings which are stated in specific context of a given situation. Moreover, the academic disciples of interpretivism paradigm use assumptions that social creations like language, shared meanings, as the only path to reach reality. It is further couth to understand that an interaction of understanding and interpretation of the chosen participants, while using this own point of views is the main key fundamental ethos of the research or study.

3.0.3 Research approach

The investigation or study utilized a qualitative methodology, a qualitative inquiry or



exploration is more figured out and more defined out and more detailed for this study because of the nature of the research uncovers into the experiences and in-depth opinions of the population under study. A qualitative approach or model enables the researcher to delve into attitudes, experiences and behaviours as it allows depth interviews. Marcus (2017) posits that complete flexibility of the examination is enhanced on n data collection. In the same vein, Bradley (2018) asserts that qualitative analysis of data allows the critically flexible examination which is accessible. A qualitative examination or approach enhances the creation of a synergy in participants especially the fact that participants responses are found from other's comments. A qualitative approach enhances or cultivates confidence in participants as they feel that their emotions and thought about their own area or environment are being placed under study.

3.0.4 Research Strategy

To critically and analytically gain a sound set of meaningful facts from participants experiences and their sound praxis perspectives, the research adopted a case study design as that can be further be validated across the entire group, as the manner allows dimension that are explanation based, explorations based as well as description. These dimensions allows a meta-analysis towards fullness and comprehensiveness of the research. According to Baxter and Jack (2018) "case study are highly applicable to a qualitative research as it critique or dissect phenomenon deep within its existing context and content. It is vivid enough to therefore to say that the case study allows those who are the active participants in it be interpreted efficiently with their daily experiences and conclusions, as well as in their settings as it benefits both the



participants and the researcher in information gathering.

Another factor which is in line with the above ideas is basically found in Yin(2013) , where he postulates that a case study is an effective approach on those studies that try to find answers to the English foundational comprehension questions of “how”, “why” “what”. In correlation to this particular study, those are the foundational questions which it seeks to answer, as a way of understanding the contextual crux toward learners’ performance in relation to their socioeconomic background or status the internal school factors can be used to proffer school crafted solution to these comatose.

3.0.5 Population understudy or study population

To gainfully have a deeper understanding of the problem, it is critically need to understand the population which is understudy. According to Krugger (2019) population refers and includes the full set of units from which conclusions about a certain manifestation are drawn,

3.0.6 Sample technique and the sample

According to Rudolph (2022) a sample is a subset of individuals from a larger population to which the researcher choses to attract information from. A sample acts as representative of the larger group. In addition to these facts, there is further need to look at sampling as it is the core crux which brings about true intentions of the research study. According to Creswell (2014), sampling is the actual process which allows a researcher to study a small group of people from the large group too derive inferences. In other words it is the initial level where the researcher selects participants with vast professional and general knowledge of the phenomena of the study. This sampling process has types as well the study further outlines random sampling is a non-



probability sampling technique of searching for information and it depends on the characteristics of the population under study. A non-probability sampling is researcher based, this means that it solely lies on the researcher as his subjective judgment matters the most when selecting samples. Crossman (2018) clearly asserts that random sampling are very useful in situations where one needed to reach the targeted samples quickly or faster..

It is of particular interest to note that in this type of sampling, those to participate are sought based on the pre-selected form basically aligned to the study's research questions. The researcher's knowledge has been preferred as the selected are the ones the researcher feels they are befitting particular having checked on theory attributes and need to represent the population.

It is fundamental to take note that this particular study or research is leveraged on purposive sampling. According to Anderson (2012), a purposive sampling refers to a group of non-probability sampling techniques in which the units are selected because of their feature that suits the researcher subjective judgments of what he need from the subset.

Using this form of sampling is lucrative in that it is less cost, less time consuming. It allows the researcher to have enough intensive study of the sample which he selected as the purposive sampling does not allow irrelevant and necessary item to be part of the sample. In light of the above, Leedy (2001) argue that such research methods leave ample room to the researcher's biases or prejudices to influence the selection process, additionally these methods are therefore not suitable for studies carried out on large



populations and their sample sizes where the constant maintenance of objectivity and accuracy is challenging.

On the onset of the study there was explicitly on the researcher's purpose of this investigation, this further enhanced the researcher to seek individuals and internet secondary sources that best supplied valid and relevant priceless formation needed to retort the research questions

Two schools were used because one school is where the teacher is stationed at and the other is in the same cluster, school heads, head of development, biology educators and learners and school development were chosen because the heads and school development committee are there as administrators who make administrative decisions the learners, educators and Head of department are in constant touch and are the information rich sources.

3.0.7 Sample size

The research has a number of people who are the target and major participants and in this research they are referred to as theoretical population the theoretical, population for this particular study are the secondary school educators, heads of department students, school development committee (SDC) school development committee the parental quota as they come from the community and to the school they from part of the administration.

A breakdown of the participants is as follows two school, heads as they represent the administrative decision making zone, two head of department as they represent subject (Departmental leaders) decision making and performance evaluator and supervisors



.Two teachers from the Biology department and because there are two schools, this makes them four and finally a gender balanced subset of learners, then in addition two gender balanced school development members from each school.

3.0.8 Recruitment strategy

The researcher will go to the school, this enhances him to seek permission and the school head to inform the teachers especially those from the Biology department and those available, and willing to be interviewed, then appointment will be created or set. To those who represent the parents as the school development committee, the researcher will seek for permission through referrals from the school head, teachers and the head of department will be interviewed, this method is more effective and much convenient from the school as the schools are close to each other .For interviews, the participants will be informed on the purpose of the research.

3.0.9 Data collection techniques and procedures

On this particular study, interviews will be used, the question for the interviews will be structured or crafted according to the terms of the themes of objectives .Furthermore, focus groups discussions, and literature or documentary analysis will further be used to collect the data. Data triangulation will be allowed as there are multiple sources of data, according to Creswell (2014) researchers should use multiple and accept multiple sources of data collection as it increases the reliability and validity of results.

3.1.0 In Depth-interviews

The use of in depth-interviews technique is the most fundamental when acquiring information personal and experiences particularly when there is sensitive to pies are be



examined, of importance these interview questions will be structure based on the research objectives. According Garry (2015) an in-depth interview is a two-person conversation basically initiated by the interviewer for the specific purpose of obtaining information critically relevant for the research and content specified by the research objectives, description, prediction and explanation .A closer look at the definitions, one can say that a given context, for two people with the aim to extract facts related to the study.

The question or interview questions will be structured in a different unique manner, as the main affection is extraction of information, for this is done in according to the position of the interviewee, the data to which the study require and that required by the researcher. Basically questions will be different those for the Head of Department and those for the school development committee but they shall be revolving around the same research questions.

Digging deeper into the crux of the context, the qualitative interview in this study employed semi-structured questions. A look at Patton (1990) qualitative interviews generally use semi structured questions, these encourage meaningful set of responses from participants. The use of these open-ended questions made it easy especially to the parties in the questions and answer section of the interviews. This is further facilitated by the character that they have no limit to the response as there is room for supplementation by follow up questions probes, and comments if necessary. This particular method allowed the study to explore participant thoughts, feelings, and beliefs. This study further paved afield to inquire using complementary sources of information.



3.1.1 Focus group discussion.

Another data collection strategy used in this study was focus group discussion. According to Merton (1987), a focus group is a planned discussion that typically involves a small diverse group of people who are selected and gathered together to discuss a specific topic, issue, or product that is guided by an expert facilitator and observed by a researcher or researchers with the intention of gaining a deeper understanding of people's attitudes, opinions, experiences, and behaviours. The utilisation of focus group talks in this study helps to ensure that meaningful information about selected participants is acquired. Morgan (1997) believes that focus groups are quite useful, in particular when conducting investigations including complex research about facts of life that affect student performance. He additionally clarifies that they anchor when acknowledging patterns, themes, and contextualised facts.

In the words of Kruger and Casey (2000), focus groups allow researchers to collect data from several participants at the same time, making them a cost-effective and efficient tool. Furthermore, the researcher will use his linguistic ability to conduct these focus group talks in the two prominent languages, Ndebele and Shona, as well as English. It is imperative to note that the researcher shall try to be professional, spelling out every participant's role and as a way of avoiding others dominating the discussion, as noted by Morgan (1997), where he pictured that having a dynamic group can have respondents' views being dominated by others, leading to an effect of potentially swaying others views and or opinions. To guarantee that the data acquired is worthwhile, the researcher must do a data analysis. Mitis and Huberman (1994) recommend that researchers use coding and theme identification techniques to identify patterns and meanings.



3.1.2 Documentary analysis

As previously said, in order to acquire information, the study has to utilise a wide range of sources, specifically secondary data sources. This research used secondary data sources. Basically, MoPSE education regulations, circulars, and classroom daily attendance were utilised to determine if students attended Biology tutorials.

3.1.3 Methods of trustworthiness

According to Smith (2015), validity relates to the authenticity and applicability of the methodologies used, as well as the accuracy with which the findings represent the data. It ought to note that this study used several measures to ensure that the information acquired and gathered was of the highest integrity, hence avoiding bias in the study or investigations while maintaining and ensuring credibility and validity. The depth of the inquiry and the relevance of data collecting and analysis are crucial, therefore bias in sampling must be acknowledged and methodologies critically pondered on. Smith (2015) emphasises the importance of qualitative researchers infusing and adding tactics to ensure the credibility of a study at the design, planning, and implementation stages. This is accomplished by respondent validation; persons who participated in the recording of the interview may be contacted to provide comments regarding the results. Smith (2015) emphasises the importance of qualitative researchers infusing and adding tactics to ensure the credibility of a study at the research design as well as execution stages. This is achieved by respondent validation; persons who participated in the interview transcript may be contacted to provide feedback on the results.



Patton (1999) explains that several methods are utilised to assure the reliability and validity of the study examination, which indicates that the study must be reliable. And reliability means consistency, which means that the research must produce similar results. Patton (1999) asserts that triangulation is one method to ensure reliability, and as such, he proposes that triangulation involves the use of multiple data sources in the investigation as a means of cultivating sense.

A plethora of multiple sources of methods used to be used, In this case they should be used on all stages. Patton (1999) outlines that one single method can never adequately provide clear satisfactory deeper meaning on phenomenon under study. Checking of consistency on the findings at every stage where inferences are generated from the different data collection methods

3.1.4 Data analysis procedure

Stake (2015) defines the study and interpretation of data as a means of making meaning of information collected through many sources in order to answer research questions. Cohen et al. (2017) characterise the phases in data analysis as familiarisation, coding, elaboration, interpretation, and checking. A more thorough investigation reveals that the study requires developing an impression from the data; consequently, the researcher resolved and categorised the data, and an additional reading of notes from the field, collected reactions, and journals concluded the research.

Conceptually data analysis was used, which entailed determining possible themes and then coding. According to Gibbs (2015), theme coding provides for the understanding and storage of data; in this particular instance, all data was organised by topics and facts relevant to the investigation. After coding, elaboration was the following item,



where different sections of the data became interconnected and linked, grouped all data that were related in structured formats, further allowing segmentation of data into subset these and broad trends. Leedy & Ormrod (2015) The final stage comprised data interpretation and checking; here, sub-themes and broad themes were checked, and the findings were interpreted. Braun and Clarke's (2016) interpretation of themes involves written accounts of the interpretations and finding of the data obtained.

3.1.5 Limitations

The main factor that is the critical limitation of this study is the time constraints. Given that the study had a study population of different people with heterogeneous duties and responsibilities, the researcher had to rely on the school timetable and school development gatherings where members of the school development committee met, in order to avoid acting outside of the MoPSE set standards, where teachers are not supposed to discuss outside of the secrecy act. Finding acceptable times when instructors were not required to attend school and had personal time, i.e. free moments on the schedule.

Another noteworthy constraint was the educational calendar; in October, students are scheduled to take public examinations, and these will be administered by Zimsec, and the researcher had to schedule a very inform interview, and there was also time after the examination period, when learners, department heads, instructors, and school heads would be readily available.



The research was conducted with mindful consideration for the rights and well-being of the individuals being researched. Park (2020) emphasises the need for safeguarding study participants who go above and above to acquire approval from responsible authorities. To safeguard persons who participated in the investigation study from potential danger, their identities were kept private and not made public.

Permission to conduct the research study was received from responsible authorities. This further proceeded into disclosing the effectiveness of the study, where identities were not meant to be mentioned.

The study's ethics were followed, and participants were provided with details regarding their roles, the study's protocol, and precisely what is expected or anticipated. Participation was optional, with participants' rights being honored and safeguarded by confidentiality and anonymity, and the researcher elected to utilize codes as opposed to real names. Finally, the gathered information was kept in two safe electronic means, the first being the use of a flash drive, and the second being the storage of the information on a Google Drive to ensure that if the information is lost, it can be recovered.

3.1.6 Chapter summary

A qualitative examination inspired this study on the viewpoints of the people living in the Insiza rural district, where the educational institutions are located, on how socioeconomic status affects the academic performance of students. The heads of departments, heads of schools, school development committees, and local learners were interviewed to provide an explicit perspective on performance in relation to socioeconomic conditions because they have broad pragmatic knowledge of these challenges. Last but not least, the data obtained from the method outlined in this



chapter are well presented, investigated, and explicitly alluded to in the section that follows.

CHAPTER 1V

Data analysis, Discussion, and presentation.

4.0 Introduction

This chapter present data which was gathered using the mentioned and fully discussed methodologies above, that is on chapter three. It will further briefly give an explanation about the purpose and objectives of the study. An overview of the sample which was fragmented for the study and an overview of the themes followed by an outline of the questions and their responses from the participants. It is paramount that on this introduction an outline of the study be clearly outlined as the study is investigating how socio-economic background affect or impact the academic performance of learners with special and specific delimitation to a rural base or rural located schools or set of



institutions.

Insightful findings from the school heads, educators, learners, school development committee and former learners are presented and analysed. The research study used in-depth interviews which were scheduled for fifteen-twenty minutes, they varied depending on the participation. There were also open-ended question to further facilitate for probing, and focus group discussion as well as documentary analysis were other tools to gather information which were used.

4.1 The objectives of the study were to:

- To practically examine how socio-economic factors affect biology student at ordinary level
- To investigate how education policies through the constitution and ministerial act address these issues of academic underachievement among the biology student in rural areas.
- To widely identify the challenges that cause academic underachievement as Siyazama
Secondary School

The focus group discussion, documentary analysis were the forms of data collection used together with in-depth interviews, all these were guided by the general interview guide approach, the interviews questions were drafted in a way which ensures that the interviewee opinions on the matter would be captured through open ended questions, with further understanding being aided by probing the researcher where necessary, (Berry 1999) outlines that probing is meant to delve into the participant's individual



experiences, perspective and context.

It is however important to note that to reduce the tendency of subjectivity, one participant from each of the secondary schools was interviewed, furthermore, as the data was collected in text form during interactions with and observation on the participant was being done, the textual data was not converted to numerical form, this meant that there is no statistical analysis of data

4.2 Response rate

The data that will be analysed will be from a total of twenty-five participants, twenty learners whose nature is heterogeneous, meaning five school leavers , five best performers , five middle performers , five underachievers one science teacher , two school heads and two school development committee members, they were varied in their number per each research tool

The in-depth interviews with school heads educators and focus group discussion with learners were all used to gather the primary data. The response rate is shown in the table

Table 4.2 (a): Analysis of responses

Variable	Responses	Non-Responses	Total	Response Rate
School heads (interviews)	2	0	2	100%



Educators (interviews)	1	0	1	100%
Learners (focus group discussions)	16	4	20	80%
School development committee (interview)	2	0	2	100%
Total	21	4	25	84%

Source: Primary Data (2024) SIYAZAMA SEC SCHOOL

There was a total of two interviews which were conducted with the school heads, two with the school development committee and one with the educators all responded as anticipated , hence signifying a 100% response rate as vividly presented in table 4.2 (a). Furthermore, twenty interviews with students were conducted successfully and the response rate was 80%, the 20% did not respond, as they neither preferred to nor proffered any reasons for not responding, critical to this research and with adherence to the research ethics of voluntary participation, responding, confidentiality and privacy, those that did not respond were not asked to say why they did not respond to the research interview as opined by Rubin (2017)

A total of 20% of the learners feared to disclose their own personal feelings and thoughts. This made them fail to qualify as participants in the study. Focus groups were conducted according to the schedule, this was evidenced by active participation. According to Michelson (2013), a response rate of about 60% and above is significant enough to conclude a weight, or to weigh the study as valid and have results that are credible. In conclusion, a response rate of 80% from the total presented results in table 4 gives enough weight to the results of the study findings and credible conclusion.

4.3 Demographic information of participants

This particular section of the study delved to present the demographic data of



participants in the study table 4.3(a) shows and present the biographical data of those who participated in the study, the demographic areas of interest were gender, age, teaching experiences and professional qualifications

Table 4.3 (a): Demographic variables of Teachers, SDC, and school heads

Variable	Variable Description	Frequency
Gender	Male	2
	Female	3
	Total	5
Qualifications	Technical qualification (SDC)	2
	Diploma in Education	1
	Bachelor's Degree	1
	Master's Degree	1
	Total	5
Teaching Experience	0 – 5 years	1
	6 – 10 years	2
	11 – 15 years	0
	16 – 20 years	0
	More than 21 years	0
	Total	5
Number of Years at the School	0 – 5 years	1
	6 – 10 years	2
	11 – 15 years	0
	0-20Yearsservice the committee	2
	Total	5



Source: Primary Data (2024) SIYAZAMA SECONDARY

4.3. (a) Demographic variable of learners

Table 4.3 (a) shows there was a balance between the participants within the study findings male and females who participated. A closer look shows that generally the educators were qualified hence they have deeper information and understanding of factors that impact the learning process or academic achievement. The participant experience further shows that generally they have experience with the school and its internal factors.

Table 4.3 (b): Demographic variables of Learners

Variable	Variable Description	Frequency
Gender	Male	10
	Female	10
	Total	20
Age	12 – 16 years	2
	Above 16 years	18
	Total	20

Source: Primary Data (2024) SIYAZAMA SECONDARY

Table shows that the data findings were done on a balanced frequency where learners who participated were grouped and from each gender, a total of ten females and ten males were selected with only two learners falling below 16 years which they were old enough to understand the phenomenon of how socioeconomic issues impact the academic performance hence enhancing credibility off the study findings.



4.4 Themes and sub-themes (research questions and findings from research tools)

4.5 THEME 1 Research question 1: How does socioeconomic factors affect the performance of students studying biology?

The study participants were interviewed on the socioeconomic issues (background) that impact the academic performance of learners in Insiza District Secondary School. The vivid findings from the school heads, facilitators, and school development committee indicate that poverty, family level of income parent unemployment and parental education are the major issues that impact the academic performance of learners in biology in Insiza District secondary schools. The findings were clearly obtained from the interviews

The participants' responses (Findings from the interview tool)

4.5. a.VW 1: had the following to say:

"Socioeconomic status such as poverty, low income, limited access to resources and financial struggles are basically the major issues that hinder how students perform, this is because with limited finances and poverty means reduced concentration due to hunger and failure to procure subject studying aids such as text book , cellphones to access online materials"

4.5 b. BW3: added that:



Insufficient funding of science subjects, outdated reading resources and the geographic location of the school as it is a rural school, this means that there is limited access to extra-learning, internet and resources that are directly linked to enhancing the acquisition of knowledge.

4.5b2 HD2: confirmed that:

*Cultural and linguistic issues contribute to learners under achievement, as the area where the school is located is close to Mbembesi area and a number of learners who are enrolled at the school are of the Xhosa tribe, they normally go for male circumcision and spend 2 months in the veld doing male initiation ceremonies, and in their culture they actually have what is called language superiority where they do not pay attention if taught in isiNdebele and they prefer their local language, this causes a decrease in academic performance. Most of the time they are out of school activities, nursing wounds and attending ceremonies such **umgiyo** and if taught in other vernacular languages they do not pay attention.*

4.5 c. HB4: confirmed by saying the following:

Socioeconomic status and background of learners has a clear negative effect on their performance in academics as their background is rural based and their major sources of money or income is gold panning , farming and selling garden produce. The major ones include poverty, failure to pay fees, this stresses the school and they are at times sent home resulting in them being out of school, missing lessons, parental education reinforces this issues as parents in our communities normally have low education acquisition hence they rarely encourage their children to focus on academics



Findings from the interview

It is imperative to note that the research findings from the interviews clearly revealed that other factors such as the recent turn in the educational view by the introduction of education 5.0 a STEM based philosophy and the new curriculum in schools, this has made it difficult to achieve more and rather learners underachieve. Also there are other factors such as lack of parental motivation, social capital as well as children`s labour contribution to family source of income such ad learners helping parents in gold punning , watering the garden and herding livestock, all this contribute to the social and economic issues that impact how learners perform as they occupy themselves with work earning for family instead of academics, these are factors that contribute to learners in Insiza District Secondary school failing to achieve in their academic endeavors or underperforming.

In addition to the above factors, Insiza District schools are located in areas with gold deposits and this has influenced many learners especially males learners to spend time meant to study while punning (ukucheketsha in local language) for gold to eke a living .This peer related influence results in underachievement. It is further imperative to note that the community background has broken families where family heads such as parents have left the country to Botswana and South Africa leaving child headed families, other have parents who passed own due to HIV and AIDS, due to these different challenges faced by or encountered by learners who are still in the academic filed, they take away learners concentrations span and the result is academic underachievement.

In addition to the above, it is important to acknowledge that culture and language are



an important aspect of our life as these two issues shape who we are but at some point it actual affect our education as outlined by participants that there are certain cultural activities that they perform and go against the time table of active learning for instance learners who participate in the male circumcision spend time out of school losing out lessons.

The participants' responses (Findings from the from the focus group discussion tool)

4.5. d. QE5: Narrated that:

The economic outlook of our country where those highly qualified actual do not have jobs makes learners put less effort in their academic endeavors as well as the fact that the proximity of homes and the secondary school, this distance exhaust learners and when they arrived at school, less energy and sleepy sometimes, all this takes away learners` concentration making them focus on their exhaustion and even nursing the hunger

4.5. e. FQ8: Had the following to say:

Drug abuse especially amongst boys result in academic underachievement and actually divert the learners attention from education to being delinquent bahaviours and truancy, All this affects academic achievement

4.5.r. HDG 2 : *added that : transport challenges are major issues which makes them miss out lesson especially first period on the time table , there is no public transport to*



cut short the long distances that learners walk to school and when they miss out of the first periods on the time table they are marked absent on the time table and no one will revisit these missed lessons.

Findings from the focus group discussion

Looking at the data presented it can be seen that socioeconomic factors are the main and chief contributing factor towards student academic underachievement. As the data findings show, there are also behavioral and psychological factors that come in conglomerated with socioeconomic factors and they negatively impacts learners in Insiza District academic performance.

The finnding revealed a plethora of challenges that come to effect because of the geographical location of the school, social economic issues hurdle parents and they fail to perform educationally, also enhancing digital media and Information communication technologies tools which are there demanded by the new STEM learning and Heritage based curriculum, they include laptops and smartphones. Furthermore, focus groups discussion with learners indicated that parents do not encourage them to read and do their assignments and some either refuse them to use their smartphones.

Also there is the issue of shortages in transport, especially public transport meant to transport learners to school, this issues makes it difficult for learners to reach the school on time and attend lessons in time. They miss out the first lesson on the time table and the totality of all these missed lessons make it difficult for learners to perform



well in their studies hence underachievement

4.6 COMMENTS AND INTERPRETATION OF FINDINGS ON RESEARCH QUESTION 1

Research findings from the data show that there are a lot of factors that are contributing to the academic underachievement of learners in Insiza District secondary schools. The study findings showed that financial issues that are part of the socioeconomic status are the main cause of academic underachievement, furthermore, Insiza is a resettlement community and also community where there are gold deposits, due to these issues, the subsistence nature of farmers means that learners have to provide their labour in the field, diverting their focus and attention away from academic activities, this makes them underperform in their school work.

Also, because of the gold deposits present in the area, learners also engage in gold punning meaning they now have time meant for studying slated for gold punning. All these activities have been made worse by the issues of climate change evidenced by the El Nino weather conditions. These environmental conditions affected the sources of income, hence impacting and straining the ability of parents to purchase materials that



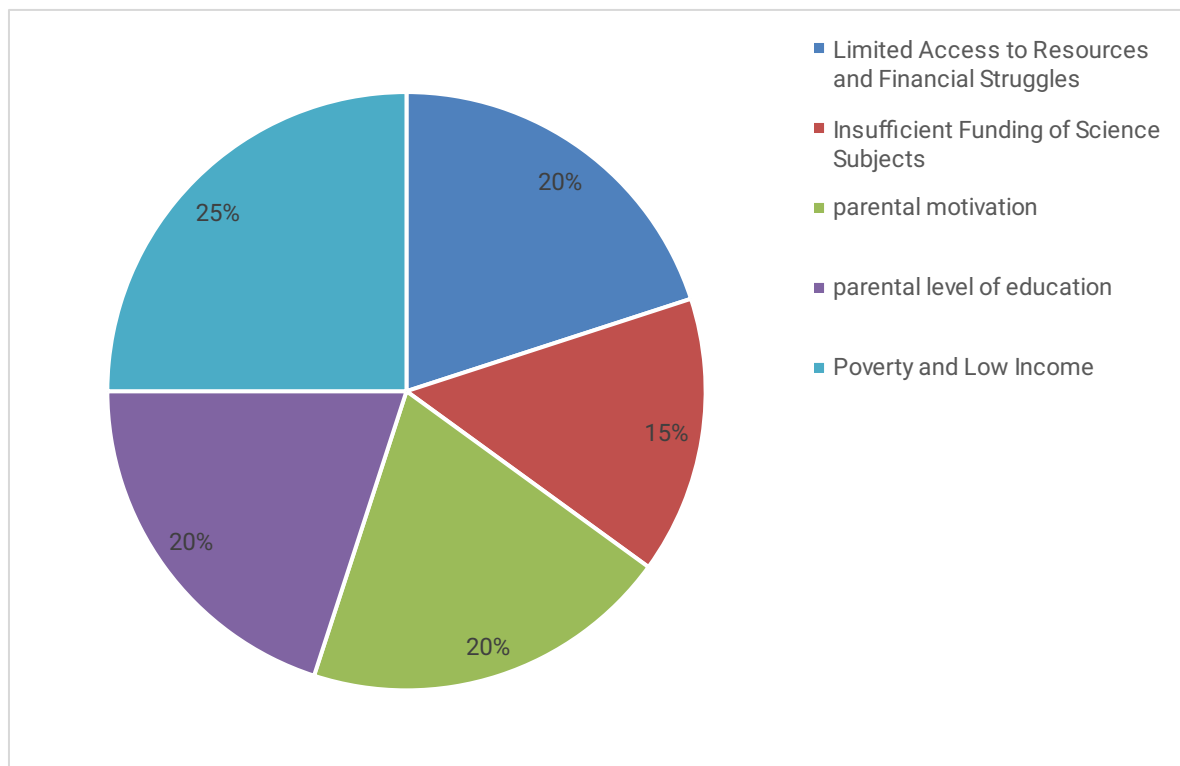
support learner`s learning and tuition for them to at least not be sent home due to non-fees payment.

The economic status in Zimbabwe has affected the school children and this has seen a lot of students failing to excel in school. As noted by Naidu (2013) who outlines that the Zimbabwean economic crisis has had ever reaching impacts on learners when they fail to pay fees, purchase supporting learning materials for learners to use and further their understanding of the studies. It is generally important to note that socioeconomic issues such as poverty ,social capital, parental unemployment and family level of income are indeed a great challenge which does not only affect learners in Insiza but the nation at large.

In addition to the above, the data findings show that even there are socioeconomic background condition that impact learners academic achievement, there are other issues like distance the learners walk, this means that upon arriving to school, learners will be tired and they fail to concentrate, this means that they fail to catch-up with others and some may be late and miss out the classes. All these systematic deep research findings are in correlation with Forster (1999) `s views that poverty and the location of many rural schools contribute to the effects they visible see when they complete school.



Figure 4.6 A: The pie chart on the Educators responses on the cause to learner's poor



academic performance

Analysis of the pie chart

A closer look at the pie chart which is an analysis and depiction of what the interviews and a partial group discussion analysis shows that poverty is the major socioeconomic factor which plays a major negative effect in impacting negatively the student performance and parental motivation, parental level of education and limited access to financial resources are equally affecting the student performance as indicated and or outlined from the interviews.



4.7 THEME 11(research question 2): What are the internal cause for underachievement at Siyazama Secondary School.

Basically, the focus group discussion was the primary source of data collection, with interviews supplementing the focus groups. Data findings from participants reveal that there are quite a number of aspects that effect learners' performance; these factors are directly tied to the school, the techniques, and the learners' abilities and capabilities. This was primarily due to the status held by the other participants. The responses of the participants in the focus groups are clearly as follows:

The participants' responses (Findings from the focus group discussion tool)

4.7. A.HQ2: mentioned that:

Quality of teachers and their level of qualification together with nature of the subject are a force to reckon with as they affect the way the subject is being taught from theory to practical, all these issues affect the quality of education and in most cases the subjects being a science is hard to interpret as other concept prove too hard for teachers with low academic qualification

4.7. b. QZ4 added that:

The subject on its own being a science study area and the resources availability and facilities are major contributing constraints, considering that the subject require many equipment to use such as laboratory apparatus and the teacher interpretation of science subject, mostly the subject has ambiguous facts in its content and the need for supporting tools which further extend how learners understand.



The data findings demonstrated that there are a plethora of internal factors that contribute to learners' lack of academic achievement, these are school-related factors and they include teacher qualification and the subject nature, where most participants from the focus group say that "sciences are by nature hard, furthermore resources and facilities availability are also among the variables that were clearly mentioned that are unavailable and makes learning difficult and learners under

4.7.c. BA1: had the following to say:

Science related subjects basically require a lot of supporting equipment and infrastructure to understand science facts these should be enough and adequately equipped class facilities for the subject, basically, shortage of facilities like laboratories which are spacious and well designed for learning , results in learners failing to acquire the best deserving content all this makes learner perform below standard.

4.7. d.CB1: added that:

School setup and overcrowding are basically major issues that affect the way learners acquire knowledge , the school has fewer blocks and classrooms for learners to use and this results in overcrowding as learners cluster in one class, sharing a single book and at times follow steps from that same book to complete the experiments,

4.7.e. B3 concurred that

Within the school environment poor influence from colleagues and teachers in another major contributing factor towards student underachievement as they find learning being something that hardly leads to the accumulation of wealth.



4.7.f. FC4: concluded that:

Basically motivation and the curriculum on its own are major areas which impact how learners perform, the curriculum and its relevance is a major factor which impacts how learners perform, the fact that the curriculum is a new philosophy means that basically there is need for learners to perform beyond.

Findings from the focus group discussion

Having conducted discussions in groups with participants, a plethora of internal school related factors that fact or impact the student`s participation in biology, the outlined factors include the school`s infrastructure where the classrooms do not fully accommodate all the learners for easy access to instruction, other situations related to this was the shortage of laboratories for pragmatic learning of science experiments, nature of the curriculum, nature of the subject and quality of the teacher, specifically referring to teacher qualification where among other outlined factors that affect students` performance in biology.

It is of interest to further note that there are outdated curriculum material which the schools are using to deliver lessons and this makes it difficulty fort learners to engage with the relevant and meaningful learning experiences. Furthermore, there is limited extracurricular activities, where learners have limited opportunities for socialization and personal development.



4.8 COMMENTS AND INTERPRETATION OF FINDINGS ON RESEARCH QUESTION 2

The findings demonstrate that there are numerous internal concerns that influence how students do in their academics; these factors are primarily issues within the classroom and the institution. DuPlessis (2014) the fact that there are schools in rural areas means that they are fully isolated and detached from metropolitan life, which leads to underdevelopment and poverty. A significant element here is that schools fail to clearly focus on the important academic facts, as well as a lack of infrastructure electricity and overcrowding of students, forcing them to share very few textbooks, which are usually in limited supply.

Maravanyika (1994) outlines that the curriculum structure is a major force to look at as it affects how learners basically perform, looking at the Zimbabwe`s new education 5.0 philosophy and the current Heritage based curriculum that seeks to replace the competence based all the curriculum approach and their structures have currently left students in situation which confuses them on the best position of learning .All these factors together with the national outlook have contributed to the student academic underachievement.

The notions are critically in line with the World Bank (2003), which stated that in their world countries, such as Zimbabwe, schools face challenges in providing quality education due to parental and guardian financial status and background. Parents fail to pay fees, which facilitates the smooth day-to-day operation of the school and further reduces the impacts of internal factors that impact learners' academic performance. As a result, one can draw a clear conclusion that internal factors such as infrastructure,



teaching methods, crowding, curriculum, and teacher quality, and certification influence how students perform at Insiza District Secondary School.

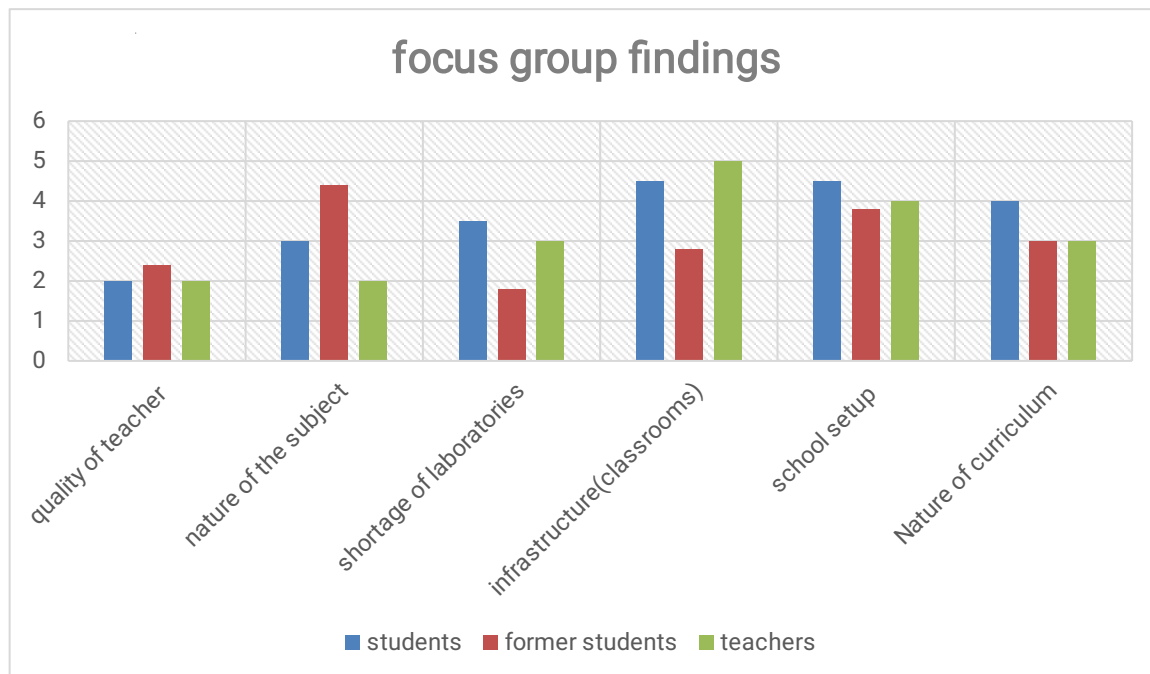


Figure 4.8.a: The internal cause for underachievement at Siyazama secondary (analysis of focus group discussion response)



4.9 THEME 111: Research question 3 .What measures can the school put forward to address internal challenge which cause underachievement in biology

The findings from interviews, focus groups, and documentary analysis reveal that there are practical methods that the school may implement to ensure that the impact of internal and socioeconomic issues does not disrupt or negatively impact learners' academic endeavours. The answers of instructors, the school development committee, and the school in terms of measures that can be used as methods to lessen or minimize the impact of these factors on students' academic performance.

Analysis of responses

Participants' responses on the measure to address internal challenges

4.9.a. FQ1: elaborated that:

Resources optimization plays a pivotal role in addressing the internal factors that impact learners perform their academic endeavors, biology related equipment unavailability limit the way learners perform in their academics

4.9. b.Q3: mentioned that:

Teacher programs that enhance the way that enhance the way teachers acquire more knowledge and skills related to gaining knowledge on how to deliver and impact knowledge to learners, teacher should have small groups to be able to interpret the syllabus, teach each other on new methodologies that can enhance understanding of knowledge on the side of learners.

The results also revealed that it is important to put forward measures that enhance



learners to grasp knowledge taught at easy with the results of internal factors and socioeconomic factors being checked all this for the academic success of learners, furthermore a well-planned designed learning approach.

4.9. c.E4: had the following to say:

Counselling interventions are a better solution that can help in dealing with the internal factors that affect how students perform generally as a result of mismatch in the subject demands versus the worse internal school environment, as counseling learners make them deal and do with what is available.

4.9. d.Z3 : concurred that:

Guidance and counseling programs help learners who came from poor socioeconomic background to deal and copy with the unfavorable backgrounds and their learning.

4.9. e.X1: added that:

Formative assessment is another very critical factor which enhances learners and deal with the conditions that negatively impact their learning.

4.9.f..DE4: concluded that:

Counseling students can enhance them to perform as they become aware that there is need to be resilient, patient, and tolerant to the learning environment and pay more attention to learning instead of the hard times of the school set-up.

4.0.1 Interpretation of responses from participants.

Educating learners and their parents about the importance of education and, such an educational counseling was seen to be a major strategy that help the student focus on



their education, all this was according to the focus group participant's responses. This kind of counseling can lead to increased support from parents and motivation from learners themselves. If all these conditions are met, it can help in increasing the learners' performance rather than underachievement.

Teacher teaching strategy and encouragement basically collaborative learning, increases the social interdependence of learners as all this cultivates a sense of motivation amongst the learners.

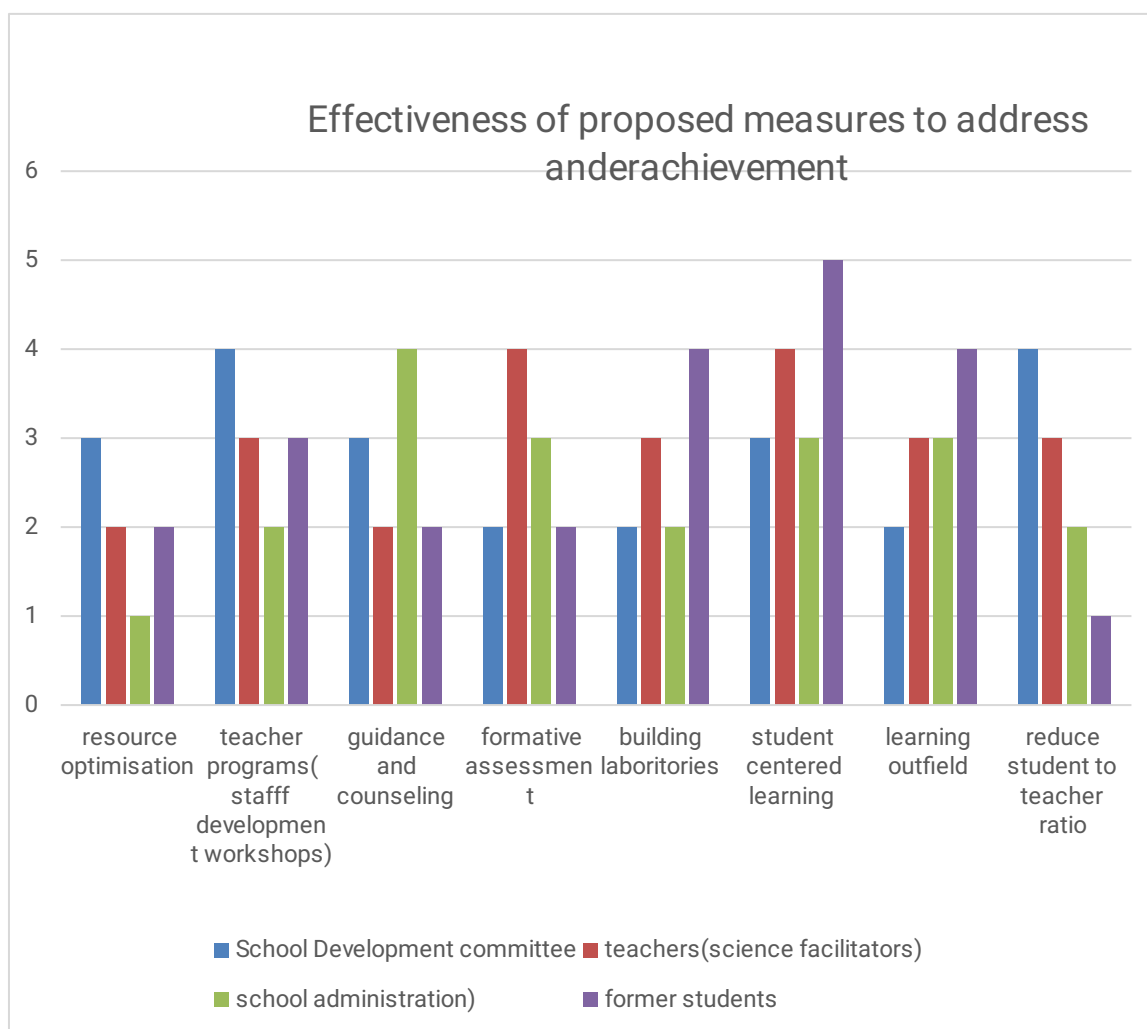
Pragmatic or student-centered methods of learning such as field trips, telefield learning help learners to have a hands on learning and acquire knowledge which is real life based.

Learning outfield or outfield the classroom enhances learners to gain knowledge on the outside environment at the same time solving problems that affect how they learn within the school set-up.

Fig 4.9 Measures can the school put forward to address internal challenge which cause underachievement in biology and their possible effect.

Analysis and interpretation of the findings as represented on the graph





4.0.2 DISCUSSION, COMMENTS AND INTERPRETATION OF FINDINGS ON RESEARCH QUESTION 3

The data presented and analyzed in the investigative study indicate that there are



different measure or strategies that can be employed or used to try and reduce the problems learners in Insiza District Secondary school are facing. Basically looking at the focus group, participants pointed out clearly pictured an explicit round of measures that either require financial interventions and methodological philosophical shift. On the first hand priority participants pictured that financial assistance is the factor which needs to be looked into as it enhances resources optimizations , on this factor, if finances are availed, it basically means that a room for purchasing equipment that enhance them to understand the subject as it is being taught and hence the overall learner performance.

There are also other suggestions on the criteria for which financial challenges can be solved. For example, in Zimbabwe, the government introduced the Basic Education Assistance Module (BEAM), which supports learners from disadvantaged socioeconomic backgrounds. Additionally, there are issues with donations from donors such as Dreams, a non-governmental organisation. To alleviate this financial burden, schools should give them leeway to operate. Furthermore, documentary analysis reveals that most rural schools lack infrastructure, making it difficult to build infrastructure because the parents who supply the school with students are not well educated. As a result, parental neglect occurs, in which they do not participate and show no concern for the school.

According to Zimmerman (2000) , self-regulation is more important when trying to deal with internal factors which generally affect learners as such self-regulation strategies such as self-evaluation and monitoring especially when faced with conditions where there is less infrastructure, the government also has made available conditions of student or learner improve their skills, the government of Zimbabwe in the Ministry of



primary and secondary education (Mopse) has made some improvements in trying to address the teacher`s skills by establishing events such as teacher community in programs like the TECH TD , financing teachers to enhance their education through teacher capacity development (TCD) and syllabus interpretation workshops.

4.0.3 Chapter summary

This chapter concentrated on data presentation, analysis, and debate. The clearly defined findings collected from participants were presented, examined, and debated. In certain cases, data was arranged in tables, and data was also represented using non-statistical notation. The clearly defined and stated findings reveal that there are aspects that influence how learners perform, ranging from socioeconomic to internal factors, and the study also proposed how these factors might be addressed utilising various tactics. It is also important to note that the following chapter covers the summary of the study, conclusion of the study, and additional recommendations.



Chapter v

Summary, conclusion and recommendations

5.0 Introduction.

This chapter summarizes the above chapters looking at the key areas of importance and vividly gives conclusions on the study as the study analyzed how socioeconomic issues impact the academic performance of learners of learners in Insiza rural district secondary schools with specific studies being centered at Siyazama Secondary where the teacher is stationed at and serves as a civil servant. This chapter will further present a summary and conclusion of this study. In addition to the above, it will further present specified recommendations for all the problem which were outlined and or identified in the previous chapter.

5.1 Summary of the study

The investigation or study was done as an investigation into the impact of socioeconomic background of learners on their academic performance. Many students in the area had their performance below standard which school producing overall pass rate below 50% and subject performance pass rate being below 20%, the problem was looked into and to prove its existence and need of investigation the study's background was looked from its background of study, statement of the problem, the research questions of the study and its necessity of being studied or significance of it. The burdening and or limitations followed by the delimitations all were looked into and helped to achieve or reach tangible conclusions

The population which was placed under study was sampled to produce a small



workable sample which represented the whole population basically a purposive sampling method was used to investigate. The research on its own was a qualitative research design which used interviews, documentary analysis and focus groups as its data collection tools. The research conclusion indicated that

- I. The major causes for low academic achievement in Insiza District Secondary Schools was basically because of a plethora of issues stressing from socioeconomic status of the learner and the internal factors which are within the school on its own, these factors include poverty, financial status of the parents, parental level of education, parental unemployment, social capital and equity among other mentioned in the study. Due to these factors, learners in Insiza District Secondary School find it hard to perform well and be at their level best or even to perform and compete in the academic space as their counterparts in the urban area.
- II. There are internal factors that are within the school, that make it hard for learners to perform well, these include poor, and shortage of infrastructure, teacher qualifications, crowding, nature of the subject and the psychological perspectives of learners towards the subject as it is a science subject.
- III. There are strategies or measures that the school can employ or delve into either to minimize and to eliminate poor academic performance from learners despite the existence of a bad socioeconomic status, among these factors include building infrastructure sourced from Donors such as Dreams to help the school have adequate infrastructure ,food assistance and creation of teacher skill acquiring events , like school based and cluster based workshops or syllabus



interpretation, counselling session or the parents so that they support learners, also engaging elderly members of the society such as chiefs, who can then appeal to members of the society to support the school. Other measures include the use of varied teaching methodologies with preference to all those that are pragmatism based.

- IV. Government policy through documentary analysis , the Zimbabwean government has made a plethora of policies meant to support education, with the creation of non-governmental policies framework which vividly allows non-governmental to operate smoothly to help schools in the country with evidence in Insiza District where there is Dreams, Camfed, World vision and Unicef, they help the school by building classes paying fees and counselling of learners and teaching than on existing diseases that are sexually transmitted that have an effect on the mental aptitude of leaners

Furthermore, the introduction of Basic Education Assistant Module (BEAM) was a major governmental effort to help schools as this enhances those who come from disadvantaged families especially orphans and child headed families. The government further introduced School improvements grants (SIG) which specifically tries to improve the school furniture to make sure that learners perform well as they have somewhere to write on.



5.1. b Summary of all chapters.

The total activities of all the chapters are then given in a brief summary with main headings and or key areas that guided each chapter are given in their order as follows,

Chapter one of the study vividly looked at the available literature which vividly gives a connection between the instigations problems and the existing thought about written facts. The study interrelated various scholars existing in the world and gave a careful analysis of the problem understudy. The study was questions where given an analytical diagnostic and this created a different picture on the side of the researcher as sound views about the topic were gained

The subsequent chapter which followed chapter one that is chapter two vividly looked at the available literature which vividly gives a connection between the instigations problems and the existing thought about written facts. The study interrelated various scholars existing in the world and gave a careful analysis of the problem understudy. The questions of the study were given an analytical diagnostic

In addition, chapter three was a qualitative examination of the means and ways to acquire information on the topic. There was detailed and explicitly road map on how physical interactions were to be carried out .It further highlighted how the prominent individuals such as the heads of departments, heads of schools, school development committees, and local learners had been involved in the practical

Lastly but not least, chapter four had more focus placed on data presentation, analysis, and debate. All this was done from clearly defined findings collected from participants.



Data was arranged in tables, pie charts bar graphs, and in some instances data was also represented using non-statistical notation. Also there were critic conclusions for each data presentation and data findings.

5.2 Conclusions

The literature of the study reveals that there are a number of issues that influence and impact the academic performance of learners and a resolution that not only socioeconomic factors affect performance but there are internal factors that affect and have a major influence on learner performance, therefore the study concluded that in the context of Insiza District secondary school, socioeconomic factors are existing external factors that affect the learner academic performance.

There is quite a range of socioeconomic issues or factors that affect the academic performance of learners, the investigation however highlighted in the literature that, poverty , parental level of education, parental unemployment, limited access to resources, social capital to mention but a few, it is critical to note that this argument places it that learners who come from low or poor socioeconomic status or background are mostly likely to perform below the require standard or underperform or underachieve in their science related education, however, there is room for the general opposing philosophy where learners from poor socioeconomic background perform with a mentality to push,



which means they want to perform and be better off in their life, enhancing them to move from a low economic-social strata to a better economic strata which is called social mobility.

There are other socioeconomic issues that relate to where the learners come from that is the nature of the school, general the school is rural based and there are internal school related factors such as shortage of infrastructure, media, class crowding, teacher qualification and failure to receive support on the side of the school due to its remoteness.

The study further conclude that the school and the government have critically responded to these factors and their government has made policy framework that allow for organizations that can offer help to assist, these include Donors, non-governmental organizations (NGO) and the notable policy manifestation include the creation of Basic education assistance module (BEAM), School Improvement grants (SIG).

5.3 Recommendations

Concluding from the study findings recommendations are strategically directed to the school educators, school administrations, the learners, the government and members of the school development committee who stand in for the community

Basically, schools in the rural geographical sphere should operate in a direction



which is opposite to the hardships, as they should be the citadel of hope and academic achievement and not drag learners out of line with their hopes.

5.4 Recommendations to educators

Teachers as the immediate parent who is the link between learners and their parents and learners and their academic endeavors, they are the center for loco parentis roles as such the Ministry of primary and secondary education (Mopse) should make efforts to open the space for teachers to develop and as such teachers should improve their skills of approaching lessons and making sure learners acquire the best of what the syllabus can offer.

5.5 Recommendations to the learners

Commitment, passion, and perseverance are the key guiding factors that should guide learners in every daily academic life they have. The vivid review from the focus group, interviews, and the investigation literature show that learners underperform due to absenteeism, lateness and HIV and AIDS and fail to focus in class. Learners should receive enough counselling and free themselves from such issues that affect themselves and as such have enough time to study.

5.6 Recommendations to school administrators (Head, deputy, head of departments)

The school administration should ensure that adequate teacher and classroom supervision are enhanced, this further improves teaching methodologies by supporting teachers, building schools classrooms and acquiring furniture all to support learners and make it easy for learners to perform well

5.7 Recommendations to the school development committee

As raised in the study, parents and the members of the committee are the same considering that the study outlined that the school development committee



stands for parents and parents should be involved in their learner's education hence the need for the school development committee to ensure that it work in hand and glove with the parents, monitoring them to be involved with their learners and their school work

5.8 Recommendations to the government

Government as the key policy maker, it plays a pivotal role in the smooth functioning of the school and the general learner performance.as such, the government should ensure that policies that are meant to create enough space for charity and donor community are enhanced such as non-governmental organization, non-profit organization are allowed to operate. Furthermore, the government on its own creates facilities that help disadvantaged learners.

Further to this, the government should build many schools including recruitment of facilitators, creation of skills advancement for teachers such the teacher capacitation development program and the use of international standard measure of competence such as (PISA) and opening up a lee-way for departments such as Airforce of Zimbabwe, Zimbabwe Defense Forces and the Zimbabwe Republic police to build schools are their school development scheme.

5.9 Further research study

This investigation had a plethora of issues that it was limited in single rural district that is Insiza District secondary schools, there should be future needy to widen the study and infuse technology which as of the century is part of the fourth industrial revolution, furthermore there is need for the STEM-philosophy



relevant to the 21st century

5.0.1 Chapter summary

This chapter looked into the summary, conclusions and recommendations of the study clearly and vividly making suggestions for improvement. Therefore, if enough attention given to school found in Insiza District secondary and they become school of academic citadel, there is reduced negative influence from socioeconomic background,



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APPENDICES

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Tel: 0271 - 7531 ext 1038
Fax: 263 - 71 - 7616

SAMED

BINDURA UNIVERSITY OF SCIENCE EDUCATION

Date: 04.12.2024

TO WHOM IT MAY CONCERN

NAME: YURA ISHMAEL REGISTRATION NUMBER: B1542609
PROGRAMME: H.BSc. Ed. Ba. PART: 2.2

This memo serves to confirm that the above is a bona fide student at Bindura University of Science Education in the Faculty of Science Education.

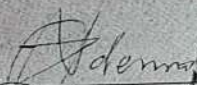
The student has to undertake research and thereafter present a Research Project in partial fulfillment of the Bachelor of Science Education programme. The research topic is:

An investigation on the impact of socio-economic background on biology students academic performance at Form Three (Ordinary level) at Siyazama Secondary school

In this regard, the department kindly requests your permission to allow the student to carry out his/her research in your institutions.

Your co-operation and assistance is greatly appreciated.

Thank you


Zindemo (Dr.)
CHAIRPERSON - SAMED

OCT 2024

P BAG 1020
BINDURA

THE HEAD
SIYAZAMA SEC SCHOOL
P. BAG VSS53 BULAWAYO
DATE: 04/12/2024
Enyigo

APPENDIX 1 – LETTER FROM BUSE



APPENDIX 2 - PERMISSION LETTERS FROM MoPSE

P. Bag 1020
BINDURA
ZIMBABWE
Tel: 0271 7521 ext 1038
Fax: 263 71 7616

SAMED

BINDURA UNIVERSITY OF SCIENCE EDUCATION

DATE: 04-12-2024

TO WHOM IT MAY CONCERN

NAME: VURA ISHMAEL REGISTRATION NUMBER: B15H2609
PROGRAMME: HBScEdBz PART: 2.2

This memo serves to confirm that the above is a bona fide student at Bindura University of Science Education in the Faculty of Science Education.

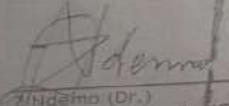
The student has to undertake research and thereafter present a Research Project in partial fulfillment of the programme. The research topic is:

An investigation on the impact of socioeconomic background on biology students' academic performance at Form three at Shangani Secondary School.

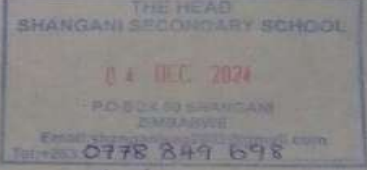
In this regard, the department kindly requests your permission to allow the student to carry out his/her research in your institutions.

Your co-operation and assistance is greatly appreciated.

Thank you


Adema (Dr.)
CHAIRPERSON - SAMED


OCT 2024
P. BAG 1020
BINDURA


THE HEAD
SHANGANI SECONDARY SCHOOL
04 DEC 2024
P.O. BOX 59 SHANGANI
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Appendix 3

Consent form

Dear Participant

I am Honors` student at Bindura University of science education, .Faculty of Science Campus And I am undertaking a research project titled: *an investigation on the impact of socio-economic background on biology student`s academic performance at form three (ordinary level) at Siyazama secondary School.*

Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary.
- Your views in this interview will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The interview will take a maximum of 10 minutes.
- The record as well as other items associated with the interview will be held in a password protected file accessible only to us and the lecturer.

Thank you for your contribution to this research.

Vura Ishmael



Signature

.....

Date

.....



APPENDIX 4

RESEARCH TOOLS

FOCUS GROUP TOOL

OBJECTIVE: To understand how socio-economic factors affect the performance of students studying biology at Siyazama Secondary School

PARTICIPANTS

- **5 School Leavers** : Who have recently graduated?
- **5 Best Performers** : Current students with high academic achievements.
- **5 Middle Performers:** Current students with average academic achievements.
- **5 Underachievers** : Current students with lower academic achievements.
- **1 Science Teacher** : To provide insights from an educator's perspective.

SETTING

Location: A quiet comfortable room and open space with minimal distractions, the form 4 classroom and under the Jacaranda tree shade when classes are occupied.

Duration: 1 hour to 1 hour and 30 minutes to allow for comprehensive discussion.

Facilitator: A moderator whose professional conduct is unquestionable guides the discussion, ensure everyone participates, and manage group dynamics.

Focus Group Questions



Introduction

- Welcoming the participants and explaining the purpose of the focus group,
- confidentiality and encouraging honest and open discussion shall be taken into consideration
- an explicit explanation of the structure and duration of the session

Warm-Up Questions

- Can each of you introduce yourself and briefly describe your academic journey?
- What do you enjoy most about studying or teaching science?

Main Discussion Questions

Social economic factors:

- How does social-economic issues impact your academic performance as far as biology is concerned?
- What challenges within the school set-up have you faced that have affected your academic performance in biology?

Teaching Methods:

- From your experience, what teaching methods have been most effective in helping you understand the subject matter?
- **(For the teacher)** What teaching strategies do you find most effective in engaging students of different socio-economic background?

Support Systems:

- What kind of support (from teachers, family, peers) do you think has been most



beneficial for your academic success as they supplement socio-economic background?

- Are there any support systems you wish you had access to as a way of solving or improvising to curb the impact of internal challenges you face in studying biology?

Motivation and Attitude:

- What motivates you to perform well academically despite the social and economic issues?
- How do you stay focused despite challenges within the school?
- **(For the teacher)** How do you try to motivate and support students who are struggling due to socio-economic issues or status?

Suggestions for Improvement:

- What changes do you think could be made in the classroom or school environment to help improve academic performance even when there are socio-economic issues?
- **(For the teacher)** What resources or changes do you believe would better support students of socio-economic backgrounds?

Closing Questions

- Is there anything else you would like to share about your academic experience or observations?
- What advice would you give to students aiming to improve their



academic performance even faced with socio-economic issues.

Conclusion

- Thanking participants for their time and contributions.
- Explaining to participants how the information gathered will be used.

Guide On Using The Focus Group Research Tool

Preparation: Recruit participants, book a location, and prepare materials (such as consent forms, note-taking supplies, and refreshments).

Conducting the Session: Follow the structured questions, encouraging open and honest dialogue. Ensure all participants have the opportunity to speak.

Recording and Transcribing: Record the session (with participants' consent) and transcribe the discussion for analysis.

Data Analysis: Analyze the transcripts for common themes, patterns, and insights using qualitative analysis methods such as coding and thematic analysis.

Reporting Findings: Summarize the findings in a report, highlighting key insights and recommendations based on the discussion.



In Depth-Interviews Research Tool

Participants: 5 best performers, 5 middle performers, 5 underachievers

Objective: To understand how socio-economic background impact their academic performance, challenges faced, and support needed.

Questions:

- Can you describe your daily study routine?
- do you to any work at home before and after study?
- What social and financial challenges you face that hinder the study of biology?
- How do you feel about the support you receive from your teachers and school?
- What teaching methods do you find most effective?
- How do you prepare for exams and assignments?
- What changes would you suggest to improve the learning experience in biology there are socio-economic issues?



Interview Tool for School Leavers.

Participants: 5 school leavers

Objective: To gather insights on their socio-economic issues their impact on educational experience and the impact on their post-school life.

Questions:

- Reflecting on your time at school, how did socio-economic issues impact your learning?
- What were the school related challenges you faced during your school years while studying biology?



- How did your teachers support your learning and development in biology even when faced with social and economic issues?
- What advice would you give current students to succeed academically and personally even when faced with school environment hardship?
- What improvements would you suggest for the school to reduce the internal factor that impact affect learning?

Interview Tool for Teachers

Participants: 1 science teacher and 1 Head of Department



Objective: To understand teaching strategies, challenges, and observations about student performance in relation to internal causes of underachievement.

Questions:

- Can you describe your teaching philosophy and approach?
- What strategies do you find most effective for engaging students?
- What challenges do you face in the classroom?
- What do you think are the key socioeconomic factors influencing student success?
- How do you collaborate with other teachers and staff to support student learning?
- What resources or support do you need to improve your teaching effectiveness even when there are factors that cause underachievement?



Interview Tool for School Heads

Participants: 2 headmasters from the two selected schools.

Objective: To gather insights on school leadership, policies, and strategies for improving academic performance.

Questions:

- Can you describe your vision and goals for the school?
- What initiatives have you implemented to improve academic performance?
- How do you support and motivate your teachers?
- What are the biggest challenges you face as a school leader in relation to learners performance in biology activities.
- How do you involve parents and the community from different socio-economic



background in the school's activities?

- What strategies do you use to address underachievement among students with different socio-economic background?
- What resources or support do you need to achieve your school's goals in biology?

Interview Tool for School Development Committee Members

Participants: 2 School development committee members

Objective: To understand their role, involvement in as representatives of the community, and their perspectives on improvement of student performance in Biology.



Questions:

- Can you describe the role and responsibilities of the school development committee that are related to learner performance in biology?
- How do you contribute to the schools strategic planning and decision-making for science subject like biology?
- What are the main socio-economic challenges you face in the community that impact how learners perform in biology?
- What initiatives have been successful in improving the school environment and student outcomes?
- How do you support student from poor socioeconomic background to achieve?
- What suggestions do you have for further improving the learner's performance in the school?



Using the Interview Tools

Preparation:

- The interviews will be scheduled at a convenient time for participants.
- Confidentiality and explaining the purpose of the interview.
- Preparing a comfortable setting and necessary materials (audio recorder, consent forms).

Conducting the Interviews:

- Following of the structured questions, allowing for flexibility to probe deeper based on responses.
- Ensuring an open, non-judgmental atmosphere to encourage honest and detailed answers.

Recording and Transcribing:

- Recording the interviews (with permission) and take notes.
- Transcribe the recordings for detailed analysis.

Data Analysis:

- Analysing the transcripts for themes and patterns using qualitative analysis methods such as coding and thematic analysis.

Reporting Findings:

- Summarising the findings in a report, highlighting key insights, and recommendations based on the interviews.



Documentary Analysis Tool and Document analysis guide

The documents reviewed are presented in the table below.

DOCUMENT	OBJECTIVE	OBSERVATIONS
Schools' logbook where guidance and counselling sessions are recorded	To find out whether guidance and counselling sessions are held.	Number of guidance and counselling sessions held.
School class registers	To find out the records of absenteeism	Record of absenteeism, causes of absenteeism from class.
Progress record	To find out the record of progress in learner performance	There is a slight increase and decrease in the marks

☒ Document Identification

- **Title of Document:** Recording the official title of the document.
- **Author(s):** Identifying the author(s) or creator(s) of the document.
- **Date of Creation:** Noting when the document was created or published.
- **Type of Document:** Specifying the type (report, letter, diary, and photograph).

☒ Document Description

- **Summary:** Providing a brief summary of the document's content.
- **Purpose:** Determining the purpose of the document (e.g., to inform, persuade, record events).
- **Audience:** Identifying the intended audience for the document.

☒ Content Analysis

- **Main Themes:** Identifying and list the main themes or topics covered in the document.
- **Key Points:** Highlighting key points, arguments, or messages presented.
- **Language and Tone:** Analysing the language and tone used (e.g., formal, informal, persuasive).

☒ Contextual Analysis

- **Historical Context:** Providing background information on the historical or social



context in which the document was created.

- **Author's Perspective:** Considering the author's perspective, biases, and potential influences.
- **Relevance:** Assessing the relevance of the document to the research topic.

☒ Critical Analysis

- **Credibility:** Evaluating the credibility and reliability of the document.
- **Bias:** Identifying any biases or assumptions present in the document.
- **Gaps:** Noting any gaps or missing information that might be relevant.

☒ Interpretation and Implications

- **Interpretation:** Providing an interpretation of the findings from the document analysis.
- **Implications:** Discussing the implications of these findings for the research question or hypothesis.

Using the Documentary Analysis Tool in this study

Collection: Gathering relevant documents for analysis. Ensure a diverse and comprehensive collection to cover various aspects of this research topic.

Review: Carefully read and review each document, using the analysis tool to systematically record observations and insights.

Synthesis: Combining findings from multiple documents to identify common themes, patterns, and discrepancies.

Report: Summarising the results of the documentary analysis in a research report, highlighting key findings and their significance.



