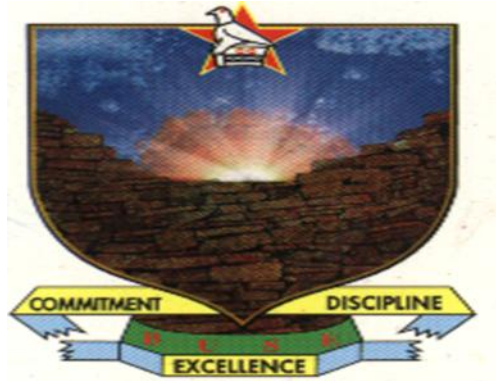


BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

DEPARTMENT OF SCIENCE AND MATHEMATICS EDUCATION



**EFFECTS OF STREAMING LEARNERS ACCORDING TO THEIR
ABILITY IN THE PERFORMANCE OF MATHEMATICS AT ORDINARY
LEVEL**

BY

CHINOMONA MEMORY

REG NO (B225825A)

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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SUPERVISOR.....MR GWIZANGWE

SUBJECT.....MATHEMATICS

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DECLARATION FORM

I, CHINOMONA MEMORY (B225825A), declare that this is my original work that has not been submitted for any degree or examination in any other university and that all the sources I have used or quoted here have been indicated and acknowledged.

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PERFORMANCE OF MATHEMATICS AT ORDINARY LEVEL.

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DEDICATIONS

This work is dedicated to my hardworking husband Nyamunda Andrew, my late mother Nancy Sambadzi and my loving and caring father Barnabas Chinomona for their unwavering support and encouragement to further my professional qualification. Thank you for being there for me unconditionally. For my children, this is a special dedication to have set a pace which I expect you shall surpass and reach greater heights. With the grace of the Almighty Jehovah, all is possible.

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ABSTRACT

The main aim of this study is to find out the impact of streaming learners at form three level according to their ability in mathematics to their performance of Mathematics. In this study, the effects of streaming learners according to their ability in the performance of Mathematics at Ordinary level in three selected secondary Schools in GlenView/Mufakose District, Harare were explored. The schools use the strategy of streaming learners according to their ability so that they cater for individual differences. The research found out that there are benefits and disadvantages of streaming learners. Also streaming promotes inequalities among learners. The low ability classes are the most disadvantaged, since they are not given special treatment they should get in order to improve academically. The study conducted at three secondary schools using questionnaires, observation guide and interviews guide as research instruments. The study explores the effects of streaming practices that put learners into three different groups which are Arts, Commercials and Sciences. The learners who perform best in Mathematics are put in Sciences, those who perform better are placed in Commercials and who have difficulties in Mathematics are placed in Arts. These groups determine what the learners will do in future. Implications of the study also includes research on ways schools can employ to overcome the disadvantages.

CHAPTER 1:

THE RESEARCH PROBLEM AND IT'S CONTEXTS

1.Introduction

The study sought to find out the effects of streaming learners according to their ability at Ordinary level. This is because the streaming of learners had an impact to both low ability classes and high ability classes on learners' performance especially in Mathematics. To engage in an in-depth analysis of the feasibility of the research problem, this chapter shall focus on the background of the study, research aim, questions as well as significance of the study to different people. The chapter also discussed the assumptions, limitations and delimitations of the study. Definition of key terms of the research also done as well as the chapter summary.

1.2 Background of the study

Hood, (2020) says the allocation of students in New Zealand is not based solely on past academic achievement but also teachers' perceptions of student behaviour and previous achievement. He also found that in classes that utilize some form of attainment grouping, 'low attaining learners fall behind by one or two months a year, on average, when compared with the progress of similar students in classes with mixed ability groups', and that this effect is particularly strong in mathematics where setting is most common. Macqueen cited in Mansor, etal (2016) says that streaming practices became a popular method of allocating students to classes in larger schools after the introduction of standardized testing in the 1920s and most

primary schools in Malaysia practice streaming beginning from the time students come into the school in their year one. Kikaho (2020) says that in the United Kingdom streaming was based on the general measure of ability and intelligence of a student's verbal reasoning or cognitive ability.

Adodo and Agbayewa, cited in Kikaho (2020), their study in Nigeria indicated that streaming is useful in promoting students' performance within different ability. In the context of Africa particularly in Ghana. Streaming was done aiming at improving performance to meet the demand of educational stakeholders and also streaming students into classes according to their ability has become a regular practice in most schools in Tanzania, the practice is sometimes used as a management technique, (Kikaho, 2020).

In Zimbabwe, there is no policy that promotes the phenomenon of mainstreaming in schools, and yet the practice is widespread in most secondary schools, (Mapolisa, 2016). Matavire et al, (2013) say that the area of specialisation is allocated to groups in order of perceived level of difficulty, for example, the commercial class in schools where ability grouping is practiced is allocated commercial subjects (commerce, accounts, and business studies) in addition to core subjects (English, history, mathematics, shona, integrated science), then subjects in the science class include physical science or chemistry and physics and biology in addition to core subjects. They further say that the arts and practical classes are taught core subjects with religious studies and any practical subject respectively and the core subjects are not taught to lower streams as they are taught to high ability classes.

Chivore cited in Mandena (2015) suggests that this practice was meant to steer learners into different courses of study where their potential could be exploited to the fullest and most schools in Zimbabwe use the strategy of streaming (grouping learners according to their ability) in order

to cater for individual difference. He further says that the main aim of grouping is to allow teachers to plan and prepare the lessons according to the level of the pupils. Mapolisa (2016) says schools that wanted to maintain their standards introduced a system of either tracks or streams where slow learners found themselves in low ability classes doing subjects like Music, Physical Education and some practical subjects.

Matavire, et al (2013) discovered that the schools which practice streaming had overall percentage pass rate of 55% to 100% whilst those practicing mixed ability grouping ranged from 19% to 65%. This means that streaming learners according to their ability is a strategy that schools are taking to improve the performance of learners academically. The primary aim of all forms of ability grouping is to provide pupils with instruction and curriculum that addresses their needs effectively, (Hood, 2020).

The researcher observed that the performance of learners in Mathematics and Combined Science in form one and two determine which class the students are allocated to when doing Ordinary level permanently at Kambuzuma high 2 in GlenView/ Mukakose district, Harare. She also observed that the low ability learners labelled themselves as inferiors and develop negative attitude towards Mathematics whilst, the learners in Science classes labelled themselves as genius or superiors and develop positive attitude towards Mathematics.

The researcher also observed that although Mathematics is compulsory and is done by every learner regardless of which class the learner is, the learners in Science classes are allocated to such classes because of their good performance in Mathematics and learners who are in Arts classes are allocated to those classes because they face challenges in Mathematics and Science subjects. The learners in Science classes are considered as superiors and interacted together

while in Arts classes are considered as inferior and they interact together. Therefore, the streaming of learners at ordinary level according to their ability creates area of specialization and have an impact on the performance of learners in Mathematics at O' level. The purpose of the study is to find out the impacts of streaming learners according to their ability to their performance in Mathematics at Ordinary level.

1.3 Statement of the problem

Streaming learners according to their ability have a strong impact on the performance of learners in Mathematics at Ordinary Level. This has been evidenced by poor pass rate and performance of learners in Mathematics from low ability classes. The learners are put in areas of specialization at Ordinary level using the strategy of ability grouping.

1.4 Research Objectives

1.5.1 To find out the effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level.

1.5.2 To investigate the positive effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level.

1.5.3 To investigate the negative effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level.

1.5 Research questions

The study was guided by one main question and two subsidiary questions

1.5.1 Main research question

- What are the effects of streaming learners according to their ability in the performance in Mathematics at Ordinary Level?

1.5.2 Subsidiary research questions

- What are the positive effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level?
- What are the negative effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level?

1.6 Assumptions of the study

The researcher assumed that:

- Learners are streamed according to their ability at Ordinary level.
- There will be available time for the researcher and the respondents during investigation.
- There is going to be a co-operation between researcher and the respondent.
- The respondent will not be biased when responding to questions asked by the investigator.

- The streamed classes are going to write same assessment test at the end of second term to use in comparisons on the performance of learners in different streams.

1.7 Significance of the study

The study shall be useful to the following:

1.7.1 Theory

The study can be very important to the various stakeholders in education sector as it attempts to significantly contribute to theory and knowledge on what can be applied in the policy making. The findings of the research will contribute to attainment of knowledge on the effectiveness of streaming learners according to their ability and what to be considered in the teaching and learning process in streamed classes for effectiveness.

1.7.2 Policy

The study is useful in the Ministry of Primary and Secondary Education (MOPSE) in formulating policies that require extensive consultation of all the stakeholders within the ministry. The MOPSE will find this study useful as it will enable them have knowledge on the effectiveness of streaming learners and strategies that can be used in schools for effectiveness of streaming learners according to their ability.

1.7.3 Self and methodology

The research helps the researcher to broaden her understanding on the effectiveness of streaming learners according to their ability at form three level in the performance of Mathematics. Knowledge obtained through the study will enable the researcher to deal with challenges faced by teachers and learners in streamed classes. Furthermore, as a Bachelor of Education student, the study builds a strong foundation of the topic that can be developed by the researcher at Master level.

1.7.4 Practice

The study is going to be helpful and useful to Secondary school Heads in the MOPSE as they are going to use the findings from the study in working out strategies that can be used in streamed classes so that all learners benefit and teachers allocated to low ability classes are motivated. This also become key in the development of staff development of secondary teachers towards streaming of learners according to their ability.

1.8 Limitations to the study

Different limitations hinder the progress of the study:

The researcher is a school teacher, therefore most of the time she will be at work doing her duties and this limits her research time.

The researcher is self-financing the project and the researcher needed money for transport, data for researches and consultation with the supervisor.

The researcher is a Primary School teacher, so she has to visit the secondary school which is time consuming.

1.9 Delimitations

The study is going to find out the effectiveness of streaming learners at Ordinary level according to their ability and its impact on the performance of Mathematics from different streams.

The study is delimited to schools in GlenView/ Mufakose District, Harare province. The study is going to be conducted from May 2024 to August 2024.

Experiment is another method that can be used in the research but the researcher is not going to use it since it need two groups, one to be treated and the other one to be a control.

1.10 Definitions of key terms

1.10.1 Effect/ impact

According to Oxford dictionary 'effect' is a change which is a result or consequence of an action or other cause.

1.10.2 Streaming

According to Fabien cited in Mapolisa, (2016) streaming is grouping students by ability range and students in the same range are grouped together. Yassin, etal (2015) say ‘Streaming’ or ‘ability grouping’ is a teaching strategy commonly used by teachers to help students achieve their learning goals at an appropriate pace and level.

1.10.3 Learner

Definition of 'learner' from Oxford Languages is a person who is learning a subject or skill.

1.10.4 Ability

Dictionary.com defines ability as "power or capacity to do or act physically, mentally, legally, morally, financially, etc." Oxford dictionary says ability to do something is the fact that someone or something is able to do something.

1.10.5 Performance

Cambridge dictionary refers 'performance' to the achievement of specific goals, objectives, or standards within a given timeframe.

1.11 Chapter summary

The chapter sought to put the research into context. The chapter discussed background to the study where the impact of streaming learners at Ordinary level according to their ability on the performance of learners in Mathematics were discussed. The chapter raised the statement of the problem and raised the research aims. Quite a number of questions which helped to guide research were raised. The chapter also discussed significance of the research to various stakeholders and the limitations of time and finance. Boundaries to the research discussed and key terms defined.

CHAPTER 2

REVIEW OF RELATED LITERATURE.

2.1 Introduction

The aim of this chapter was to have a literature review of the research understudy. In this review, positive and negative effects to the teachers and pupils of streaming learners in schools according to their ability have been discussed. The chapter was guided by the research questions which were raised in chapter 1. The chapter was focused on the impact of streaming learners according to their ability in Mathematics to their performance in Mathematics at Ordinary level. This review relies on the following sub-sections; what is streaming, the impact of streaming learners according to their ability in Mathematics to their performance in Mathematics, the positive and negative effects of streaming to the students in their performance in Mathematics.

2.2 Literature review

2.2.1 What is streaming?

Macqueen cited in Mansor, et al (2016) refers streaming to the act of grouping students into classes based in their intellectual and /or academic endeavors. Macqueen cited in Mansor, et al (2016), in her study describes the term “streaming” as the practice of allocating students to homogenous achievement classes based on some measure of each student’s overall academic performance. Also, Mapolisa, (2016) says streaming is the act of grouping students by ability range that is those with high intelligence quotients are placed in the same classroom and those perceived to be slow learners also grouped on their own.

In this study streaming is grouping learners according to their previous performance in assessment test written at the end of the year. Butler and Weir (2013) say the process of allocating students to either a high key competency class or a low-key competency class in years 9 and 10 involved teachers collaborating to fill out a spreadsheet using self-managing criteria developed by school staff. They also say that in New Zealand after every five weeks, student placements were reviewed and on the basis of this review, students could be moved between the high ability class and the low ability class at each level.

Pallas cited in Matavire et al, (2013) viewed ability grouping as an organizational strategy that increases learning opportunities to high ability learners as well as low ability learners. According to Matavire et al, (2013) ability streaming as a motivational and competitive tool, the rationale behind it was premised on the notion that pupils of similar ability compete among themselves, less able pupils are encouraged to work harder in their own class with the hope of being promoted to a high ability class whilst the high ability students would want to remain in their classes. They mean that this strategy of streaming learners promote hard working in pupils since everyone will aim to be in a high ability class and those already in that classes want to remain there.

According to Chinyoka, (2011), there are two forms of streaming which are within-class grouping and between- class grouping and between- class grouping is common in Tanzania where students are allocated to different classes concerning their academic performance. The study seeks to explore the negative and positive impacts of ability grouping in secondary schools. DiMartino cited in Mandina and Chiheve (2015) mentioned three main reasons that have been proffered by the advocates of streaming that are; it is easier and more efficient for the teacher, learners are assisted to reach their learning potential and learners feel better about themselves

and it limits the amount of failure that slower students may experience and feel.

2.2.2 The impact of streaming learners according to their ability in Mathematics to their performance in Mathematics.

Mandina and Chiheve (2015) found out that teachers expect more from fast stream learners than from learners who are in the slow stream, whom they regard as failures and this does not bode well for the effective teaching of the slow stream by such teachers but, however, some teachers of learners from the slow stream seem to take their work more seriously since they give remedial lessons to the slow learners.

Dukmak cited in Mansor, etal (2020) says streaming has been found to produce different effect towards students' academic achievement and to certain extent as being unjust. Hood (2020) says that streaming has been shown to have a negative impact on students in lower stream, which in turn negatively impacts on their academic achievement and progress. In New Zealand, Butler and Weir (2013) observed that students in the high ability classes were described as being self-directed and independent learners with good time-management and organizational skills and teaching strategies for them tended to be focused on promoting independent academic learning and this contrasted with strategies used in the lower ability classes where there seemed to be greater emphasis on working with individuals, more practical 'hands on' activities and a focus on encouraging students to be well organized, confident and attentive.

Learners indicated that teachers in the fast stream take a short time to mark the work written by their students whilst those in the slow stream take much longer, (Mandina and Chiheve, 2015). Thus, feedback to the learners in the low ability is delayed, thereby compromising on the

effectiveness of teaching and learning. Furthermore, Butler and Weir (2013) researched that the high ability classes are doing a more investigative program and teachers have more time to work with the less-able in the high ability classes because there are more students that can organize themselves and spend less time on crowd control.

The inequality of outcomes resulting from streaming or attainment grouping in part stems from the different ways that teachers work with higher and lower streams or groups, (Hood, 2020). He also observed that teachers have been found to prefer teaching and to be more motivated when teaching higher attainment groups. It is hard to figure out whether ability grouping itself is the main cause of children's failure, or whether some other factors such as children's socioeconomic backgrounds, teachers' expectations, pedagogy, lesson designs and children's self-images (Francis et al, 2016) affect children's participation and performances. This highlights the need for further research on the effects of streaming learners according to their ability.

2.2.3 The positive effects of streaming to the students in the performance of Mathematics at Ordinary Level?

Mansor et al, (2016) found that the high ability students are exposed to student centered learning whereas the lower ability students require more direct instructions which is very much teacher centered learning. They discovered that streaming has made teachers more prepared to teach effectively and become more skillful in handling a particular group of students in the time allocated in the time table.

According to Mapolisa (2016), streaming promotes competition amongst pupils in both the top stream classes and the lower stream classes. He also found that lower stream pupils felt it was

easier to work with pupils with same ability range as they assisted each other and did not rebuke each other when they made mistakes. Thus, pupils feel more comfortable if they are interacting with the learners of their same level in terms of academic performance.

Mapolisa (2016) from his research he established that some of the pupils in the lower streams were comfortable with ability grouping as they stated that it was good to learn with equals who did not laugh at them when they gave wrong answers. They also added that it was easy to help each other in class because they knew that all the teachers including the heads of schools hated them and would not help them with their education and they have to work hard and some of their colleagues did well in their public examination.

2.2.4 The negative effects of streaming to the students in the performance of Mathematics at Ordinary Level?

Tanggaard et al, (2015) argued that if students are placed into groups labelled 'slow' then they will behave the same, expect less themselves, also their teachers will expect less from them and hence teach them less. Thus, students from lower ability streams develop negative attitude towards their performance academically. Mandina and Chiheve (2015) discovered that learners from low ability streams do not get feedback promptly after they write exercises because teachers took more time on marking their exercise work as compared to marking of exercise work of pupils from high ability streams. Therefore, this affect the effectiveness of teaching and learning process.

Kikaho (2020) found that streaming increases inequalities between students as students in lower ability classes are being labeled as a result they felt inferior before their fellow students from

higher ability streams. From his research he also found out that students from lower ability streams perform worse than those in higher streams and led to school drop outs. He mentioned that the poor performances are caused by no serious measures are taken by teachers to uplift them academically because they are regarded as failures already. Bowles and Gintis (2012) also support that streaming increases inequalities between students, they found that arranging students into streams will automatically reinforce the values and personality characteristics of their families' social classes. Learners in lower streams who are mostly from lower social class families end up getting lower- class jobs that relate to their social classes after completion of school. same applies to the students in higher ability classes are from mostly from upper social-class families and will get jobs that are of high class as well and maintain their status quo.

In a longitudinal study, Hargreaves (2019) explored the role of attainment focused schooling in affecting children's perceptions about themselves, as well as the ways in which children respond to these influences. The findings of her study showed that the excessive use of ability groups based on children's attainment in core subjects (i.e. Math and English) led children to identify themselves as more able if placed in the high ability group and less able if placed in the low ability group.

2.3 Chapter Summary

The chapter was hinged on discussing the literature review of the research. The chapter was guided by the research questions which were raised in chapter 1. The chapter discussed the impact of streaming learners according to their ability in Mathematics to their performance in Mathematics, the positive and negative effects of streaming to the students in their performance

in Mathematics. The chapter also discussed how the learners from different streams are affected positively and negatively. The next chapter focused on research methodology.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter outlines the research methodology and design which the researcher adopted. The advantages and disadvantages of the research design and methodology are to be discussed as well. The chapter also examines the target population, the sample and the sampling technique, as well as the merits and setbacks of the research instruments used to collect data for this study. The data collection procedure and ethical issues, seal the contents of this chapter.

3.2 Research design

Akhtar, (2016) defines research design as " the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy and procedure". A phenomenological study describes the meaning of a lived experience (McMillan and Schumacher, 2014). According to Creswell (2014), phenomenological research focused on the commonality of lived experiences within a particular group. The primary goal of the phenomenological design was to explore what other people experienced and focused on their experience of a phenomenon (Leedy and Ormrod, 2015). In the current study, the researcher conducted interviews with the students and teachers involved in the streamed classes in secondary schools in Glenview/ Mukakose District. After the data collection process, the researcher analyzed the data and arrived at a more in-depth understanding of the phenomenon.

3.3 Instruments used to collect data

Research instruments are ways the researcher used in gathering data for the research. According to Borg and Gall (2014), research instruments are tools used in the collection of data in the

conduct of a research. The researcher used three instruments namely: questionnaires, observations and interviews. The researcher administered questionnaires to the 60 learners, and conducted oral face-to-face interviews with the 9 teachers. Above all, the researcher also observed the teacher-pupil ratio and the resources like textbooks to aid the teaching and learning of Mathematics at all the three schools, and recorded invaluable data for analysis.3. 3.1

Questionnaires

Munir, (2017) defines questionnaire as a systematically prepared form or document with a set of questions deliberately designed to elicit responses from respondents or research informants for the purpose of collecting data or information. Questionnaires are easy to analyze and are familiar to most people, for nearly everyone has had some experience in completing them (Popper, 2014; Creswell, 2014). Again, the authors above contend that questionnaires do not generally make people apprehensive. This helped the researcher, because most of the participants were interested in completing questionnaires. According to Longe, (2023) questionnaire is the process of collecting data through an instrument consisting of a series of questions and prompts to receive a response from the individuals it is administered to. The researcher chose the closed, as well as the open-ended questionnaire, by allowing respondents to expound their feelings. The questionnaire is one of the common devices for collecting information and a form or instrument including a set of questions and secure answers that respondents (from a specific population) fill to give the researcher information needed for the study, (Taherdoost, 2021). Furthermore, Leedy, (2015) acknowledges that with questionnaires, information can be collected from people who are thousands of miles away, and whom the researcher may never see. He also posits that questionnaires tend to eye blinker the respondents and direct them on those aspects the researcher requires, thus avoiding all other irrelevant data.

Nonetheless, questionnaires do not probe respondents when they give interesting, ambiguous or unfinished answers, and they are not an ideal method of gathering data when dealing with illiterate respondents (Popper, 2014). This means that respondents may give answers with few information, especially with open-ended items, making it difficult for the researcher to analyze such data. Moreover, some of the participants return the questionnaires without being answered and some may destroy them. The problems cited above were not encountered by the researcher because the researcher did a pilot study to pre-test the questionnaires and remove ambiguity and reduce bias tendencies.

3. 3. 2 Observations

In addition to the questionnaires on learners, the researcher also physically observed the respondents, that is, the teachers and pupils, and took down necessary information for appropriate analysis. He also observed availability of resources and teacher- pupil ratio in the sampled schools to aid the teaching and learning of Mathematics. According to Simister, (2017), observation involves ‘seeing’ things such as objects, processes, relationships, events and formally recording the information. Having been so defined, it implies that observations have their own merits and demerits as instruments of research.

Wandelt, (2015) believes that observations are advantageous since they provide direct access to the participants under study. The researcher physically identified the participants and recorded what was wanted unlike relying on responses from asking people. Where people may need to falsify data, direct observations will guard against this drawback. Further to that, Leedy, (2015) also contends that with observations, there is a greater provision for a permanent record and argues that much of the physical behavior which is of high interest to the researcher is highly

transient. The fact that all observation entails some form of recording means that it provides a permanent record of such events or behavior, thus permitting prospective analysis or future comparisons to be done easily.

Biases of the observers are another important point to consider what happens when an observer's bias can affect what behaviors to choose and record; however, it can be minimized by keeping them unaware about the aims (Kabir, 2016) However, Leedy, (2015) agrees that direct observation is time consuming and is highly susceptible to bias from the observer. This means that the observer may be tempted to record events that did not take place, and this may consequently undermine the validity and reliability of such observed data. Observer effect is also another potential weakness of observations, where the presence of the observer may influence the behavior of those participants under observation (Popper, 2014). Thus, the researcher working careful, lest the participants observed hid their actual behaviors when being observed.

3. 3.3 Interviews

Creswell (2014) defines an interview as a process which involves collecting data through direct verbal interaction between individuals. Like any other research tools, interviews have got advantages and disadvantages. The author above contends that interviews are suitable when one intends to solicit for information, even from illiterate respondents, as the wording of interview items can be modified to suit the level of interviewees. Munir, (2017) says interviews become necessary when researchers feel the need to meet face-to-face with individuals to interact and generate ideas in a discourse that borders on mutual interest

Again, interviews helped to build relations between the researcher and the respondents, as there was a greater need to confide in each other, especially when dealing with personal information (Popper, 2014). This implies that apart from allowing researchers an immense opportunity for screening, inter-personal relations between the interviewer and interviewees improved tremendously. The researcher preferred information about personal feelings, opinions and perceptions. Thus, another advantage of oral interviews is that, they allowed for soliciting of sensitive information from respondents (Phillips & Pugh, 2016), and the respondents' own words were recorded. Respondents were able to give reasons for their responses. Again, the researcher recorded firsthand information directly from the participants, for example, their emotions. Researchers can employ different methods to conduct an interview (Pandey & Pandey, 2015; Taherdoost, 2021) and perform them in individual, or group face-to-face interviews, as well as not personally for example using telephone, computer, etc.

However, oral interviews are disadvantageous in that they may be subjective and biased, and they are time consuming, especially when dealing with very large populations. Probes should be neutral and the interviewer must allow sufficient time for the respondents to answer questions and should stop anticipating and cuing potential answers (Creswell, 2014). Again, with interviews, at times respondents felt uneasy and adopted avoidance tactics if the questioning was too long, sensitive or deep. To mitigate this disadvantage, the interviewer had built trust and rapport with respondents, thus, making it possible to obtain information that the individual probably would not reveal by any other data collection method.

3.4 Population and Sampling techniques

In research, the population refers to the entire group of individuals, objects, or events that share a common characteristic and are the focus of the study. It represents the complete set of elements that the researcher aims to study and draw conclusions about (Jilcha Sileyew, 2020; Garg, 2016). The above authors further explain that the population may be individuals of a particular type, or a more restricted part of that group. Thus, a population in research is the target group from which one intends to solicit information, notably values and attitudes. Fraenkel & Wallen (2016), aver that a population is defined as a group of individuals from which a sample is drawn. In this study, the researcher investigated the effects of streaming learners according to their ability in the performance of Mathematics at three selected schools from one cluster, found in GlenView/Mufakose district in Harare Province.

The sample consists of individuals selected from a larger group of persons called the population. According to Makwana et al, (2023) a sample is a collection of individuals, things, or things collected from a large population for measurement in research. So, sampling is done in order to obtain accurate data. For the purpose of this research, the sample consisted of 60 'O' Level Mathematics learners and 9 Mathematics teachers taken from the three schools. The 60 learners consisted of 30 boys and 30 girls in order to depict the true reflection of ideas from all sex groups. Again, the teacher population comprised of 4 males and 5 females from the same selected three schools. The researcher used both purposive and random sampling. According to Borg and Gall (2014), a purposeful sample includes several cases at defined points of variation with respect to the phenomenon being studied. In this case, the researcher solely drew conclusions from Mathematics teachers and learners from three schools in the same Cluster, located in GlenView/Mufakose district in Harare Province. Creswell (2014) submits that

purposive sampling entails selecting participants for a study with common characteristics, in this study the fact of being an Ordinary Level Mathematics student.

The researcher also employed simple random sampling to choose respondents for this study. The 60 learners were chosen randomly from all the Ordinary level learners. The advantage of using a sample is that it allows researchers to study a smaller group while still making reasonable assumptions about the larger population (Andrade, 2020). Similarly, Borg and Gall (2014) view random sampling as precisely a process of selecting cases, the selection of each individual from a population that provides every sample of a given size an equal probability of being selected. Thus, it is a process in which all individuals in the defined population have an equal and independent chance of being selected as members of a sample. Random Sampling was preferred because it permits the researcher to apply inferential statistics to the data.

To get the required sample of 60 learners, the researcher used the registers. The participants were picked from the register of high ability classes and low ability classes randomly. The participants with names written on the multiple of five number position in the register were picked and considered in the study while those on position not multiple of five were not considered. The researcher felt that simple random sampling was the best method to use since no possible respondents felt disadvantaged during the selection process. The teachers used in this study were also randomly selected from the three schools.

3.5 Procedures of collecting data

The researcher used questionnaires, observations and oral interviews as means of data collection. The questionnaires were constructed basing on the main problem and sub-research questions. Questionnaires were prepared for learners, interviews were done with teachers, and an observation guide was prepared for pupils. The questionnaires were distributed to participants and follow ups were done.

On interviews, the researcher arranged time with the interviewees during their spare time. The responses were collected and recorded for future use in data analysis. The researcher explained to respondents that the results were strictly for research purposes only and therefore they should have maximum liberty to proffer their responses. Above all, the researcher also observed and recorded the effects of streaming learners according to their ability in the performance of Mathematics at Ordinary level in the three selected secondary schools in GlenView/Mufakose district in Harare Province.

3.6 Data Presentation and Analysis

The data collected by the researcher was presented on statistical tables such as: frequency tables, bar graphs as well as pie charts. The data presentation tables used were advantageous in that they made the collected data comparable and amenable for analysis. Moreover, the data presentation tables used compacted the data and made it easier for the researcher to draw inferences on it. Thereafter, the presented data was analyzed and interpreted in relation to the research questions of the study. This means that the researcher correlated the gathered data with findings from earlier researchers to ascertain similarities and differences.

3.7 Ethical Considerations

This study was done within the realms of ethics of research. Proper permission was sought from all interested stakeholders before the researcher kicked off the study. Bindura University of Science Education, the Ministry of Primary and Secondary Education, as well as the school heads of the three selected schools, granted permission to the researcher to carry out the study in GlenView/Mufakose district. Some ethical considerations were prioritized in this study.

3.7.1 Anonymity and Confidentiality

Both confidentiality and anonymity were seriously considered in this study. Bell (2015) submits that the researcher needs not to tell or insinuate which responses come from participants. Thus, on the questionnaire that was availed to teachers, no need to write the name or another identification information. The researcher also maintained high confidentiality, by assuring respondents that their responses were solely to be applied in research and the educational domain. This gave the respondents vast freedom to expound their feelings.

3.7.2 Voluntary Participation

Before partaking of this study, the researcher notified respondents that participation was entirely voluntary, and there were no reprisals to those participants who were reluctant to continue participating in the study halfway. This means that, participation in this study was not by coercive force, as individuals did it on their own option. This gave the respondents a greater opportunity to express their inner feelings, as they participated with free will.

3.7.3 Informed Consent

Informed consent refers to the revelation of the purpose, aims, as well as the study objectives to the participants by the researcher (Phillips & Pugh, 2016). To add to that, the participants of this study signed a consent form, explaining all the details pertaining to the relevance of the study to various stakeholders. This inevitably enabled the participants to feel valued, and to proffer authentic and credible information.

3.8 Chapter summary

The chapter laid the theoretical foundations for the practical conduct of the study. It considered the research paradigm and design, the population and sample, as well as the sampling procedures used. In addition, the chapter also looked at the strengths and weaknesses of the data collection instruments, as well as the ways to avert the latter. The data collection procedures and ethical issues were also examined at the closing sections of the chapter. The next section, Chapter 4, will present, analyze, and interpret data collected from the research field.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

The preceding chapter focused on the methodology and the research design. This chapter presents the findings of the research study, guided by one main question and two subsidiary questions.

Main research question

- What are the effects of streaming learners according to their ability in the performance in Mathematics at Ordinary Level?

Subsidiary research questions

- What are the positive effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level?
- What are the negative effects of streaming learners according to their ability in the performance of Mathematics at Ordinary Level?

The purpose of this study was to explore the effects of streaming learners according to their ability in the performance of Mathematics at Ordinary level. The study deployed one - one interviews, questionnaires, document analysis and observations. The main participants were the Head of department, mathematics teachers and learners from streamed ordinary level classes in three schools the researcher selected.

4.1 Response rate

The rate of response seeks to find the actual number of participants who successfully contributed to the research in relation to the initially targeted sample size. The researcher used questionnaires and interviews to collect data. The study selected 9 teachers and 60 students and they all responded. All the questionnaires and the interview guides were responded to. This means that the researcher obtained 100% response rate. According to Yim, (2009) a response rate should range from 20-94% to produce reliable results. This implies that the 100% questionnaire and interview guide response rate for this study will be able to produce reliable results.

4.2 Data presentation

In this part the researcher is going to present the findings obtained from the through questionnaires, interviews and observation.

Table 4.1 Frequency Table Showing Ages of Teacher Respondents

AGE (YEARS)	FREQUENCY	PERCENTAGE (%)
Between 20 and 40 years	4	44,4
Between 40 and 50 years	3	33,3
Above 50 years	2	22,2
TOTAL	9	100

Source: Primary

Of the nine teachers who participated in the study, 44,4 % were between twenty and forty years of age, while 33,3% were between forty and fifty years, and 22,2% were above 50 years.

The above ages reflect that, from the sampled schools, Mathematics teachers are mostly middle-aged, who could be fresh from college, and could adopt to different methods of teaching or strategies that can accommodate all types of learners. The teachers are also not too young to be novices in teaching secondary school learners; hence the researcher assumes that she shall gather reliable and valid data from the teacher respondents.

Table 4.2 Professional Qualifications

Education level	Frequency	Percentage (%)
Masters	1	11,11
Bachelor of education	5	55,5
Diploma in education	3	33,3
Total	9	100

Source: Primary Data

The results from figure 4.2 above show that (33,3%) of participants have attained a Diploma in Education as their highest level of academic qualification. The other group of participants 40% had a degree as their highest level of academic qualifications. Degree holders constituted most participants. Lastly 11,11% of sampled teachers had masters' degrees. The level of teacher qualification is important in the teaching of mathematics in the sense that mathematics is compulsory at Ordinary level in Zimbabwe.

Table 4.3 Experience of participants

Experience	Frequency	Percentages (%)
0- 5 years	2	22,2
6 - 10 years	4	44,4
Above 10 years	3	33,3
Total	9	100

Source: Primary Data

Most teachers are seniors at work and have experience in teaching and learning of mathematics at Ordinary level. Therefore, the researcher assumed that she would get information she required. The participants include the Head of Mathematics department also classroom teacher, meaning they are in charge of the area subject, senior teachers and teachers from colleges.

Table 4.4 **category of students**

Category	Frequency	Percentages (%)
Science classes (High ability stream)	20	33,3
Commercial Science class (middle ability stream)	20	33,3
Arts class (Low ability stream)	20	33,3

Total	60	100
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Source: Primary Data

Other participants in the research are sixty students selected from different streams (high ability classes, middle ability and low ability streams). The researcher used the ratio of one as to one in selecting students. Number of male students and female students are equal, also students selected from high ability streams equal to number of students from middle and low ability streams. Secondary schools in GlenView/Mufakose group learners into three categories (Science class, Commercial class and Arts class).

4.2.1 The positive effects of streaming learners according to their ability to the performance of Mathematics at Ordinary Level.

The first study question sought to explore the positive effects of streaming learners according to their ability to the performance of Mathematics at Ordinary level. To capture in-depth information about this question, the Head of departments who are also classroom teachers, class teachers and teachers were required to give their opinions about the question. The researcher named the teachers as TH as a classroom teacher of high ability class and TL as classroom teacher of low ability class. They are named as SS as student from science class and SC as student from Commercial class and SA as student from Arts class. The researcher employed interviews, questionnaires observations and document analysis. From the research instruments, the following themes were identified as the dominant positive effects of streaming learners according to their ability to the performance of Mathematics at Ordinary level.

4.2.2 Teachers preparation

Teachers' preparation is very important in the teaching and learning process, a prepared teacher is full of confidence and becomes very comfortable with concept he/ she is teaching. The type of learners to be taught determine the preparation done by the teacher. The preparation of the lesson to be conducted in high streamed classes is totally different from the preparation of the lesson of slow learners. The theme "Teachers preparation" was noted from all categories of research study participants. During the personal interview with the classroom teacher (TH), he emphasized that:

"Streaming allows teachers to tailor their instruction to meet the specific needs of their students, which can lead to more effective learning. When you are going to teach the Science classes as a teacher you need to prepare the lesson very well and have the content of the concept because students in those classes are very curious and they read in advance. They ask questions and also argue. The teacher must master the concept before standing in front of the learners, so as teachers, we are alerted to prepare the lesson before teaching to avoid embarrassments. If the teacher conducted the lesson not well prepared might end the lesson before time due to challenges that might arise." (TL, Personal Communication, 15th September 2024).

A prepared teacher will be able to use different strategies and methodologies in making students understand the concept being taught. The teachers can choose the pedagogical approaches that cater to the intellectual ability of the students and the preparation and planning become more focused. Furthermore, teachers prepare to meet the requirements and expectations of students. During the interview with the research respondent, TC reported that:

"A teacher need to use some techniques and strategies that may help stream in lower ability to widen their understanding and the same time use relevant techniques and strategies that are friendly to the students. By doing so all students from different streams benefit from the strategy of streaming learners" (TL, personal communication, 16th September 2024)

The lesson is fruitful and impressive if the teacher prepared and conduct the lesson well organized. The learners enjoyed spending time in the classroom as benefit and understand the concept taught. During interview with the research respondent (TH) reported that:

"As the Head of department of mathematics subject of this school, we are ensuring that our teachers perform all prior preparation including schemes and records book before opening of schools. We also make follow-up and random classroom observations with the teacher to ensure that the use of streaming is working and all learners are benefiting. Teachers are aware of the challenges existing between students in the different streams hence they are using their professional skills on helping the students. Teaching and learning has been improved through staff development workshops and seminar given to teachers within and outside the school. Currently, our students are doing well regardless of the different challenges that we are still combating to alleviate". (C, Personal communication, 16th September 2024).

Therefore, the challenges and professional competencies needed to deal with these streaming of students according to the students' intellectual ability lead the teachers to sharpen their skills and participated in the professional development courses so that they handle the learners from different streams accordingly.

4.2.3 Improve student performance

Since streamed classes demand teachers to prepare and teach according to student's academic ability and able to cater for individual differences, the performance of students improve academically. A close follow up in the streams helped the higher streams students to do much better and increased the performance of the lower streamed student to a much higher level. According to the respondent " TL" who said that:

" Students from high ability classes understand easily and the advantage of arranging them according to their academic abilities help teachers deal with individual problems relating to their academic abilities. By so doing the improvement of learners' performance increase. Learners from low ability streams need much instructions and time than the high ability classes. Therefore, streaming help improving student performance in our school" (TL, personal communication, 16th September, 2024)

Teachers are using different strategies in order to improve the students' performance. Different education stakeholders value the quality of education on students' performance acquired by students. Mathematics is one of the compulsory subjects that most parents expect their children to pass. Students who fail to do well especially in Mathematics and English at ordinary level they supplement. In the personal communication with the teacher TL said that:

"Teachers are doing all means to make sure that our students improve in performance, so streaming is used as a means to help students pass. Parents raise their concern on issue of their children's performance on social platforms like whatsapp groups. If learners are not performing well, the teacher will be labelled as

poor teacher. The school community will demonstrate to the school. " (TL, personal communication, 20th September 2024)

From this statement it means that teachers are not teaching student skills to utilize their environment instead they teach student to pass their examination. Students fail to perform any creative activities to run his/her life after completing Ordinary level. Students are taught to pass examinations and not to develop skills and knowledge on how they can exploit the resources in their life.

4.2.4 Increase motivation

In the teaching and learning process, motivation is very crucial as it gives learners and teachers strength. Students who are motivated are likely to perform better than those who are not. By allocating students into high ability and low ability stream, it is one way of making learners compete with each other. According to respondent "TH" who said that:

"There is prize and speech giving day done once a year usually at the end of year. The first three best students in any particular subjects got prizes. This encourage learners to work extra hard. By so doing, competition among learners is promoted. This is one of the strategies we took as a school to motivate learners to work hard"
(TH, Personal communication, 28th September 2024)

Streaming is used as a tool to motivate learners to work hard and improve academic performance. The lower streams had to study hard as well to be like their counter-parts students in high ability streams.

4.2.5 Higher teachers' expectations towards high streamed classes

Learners from high ability classes are expected to excel in their final examinations and teachers try by all means to reinforce the high performance. In an interview with the teacher TH he said that:

"We have arranged our learners in such a way that the high ability will be in their class, the middle ones in their own as well as the low ability. Learners from science class who are the most intelligent are likely to perform better in their final examination and raise our flag higher. Teachers are even expected higher streamed student better jobs in future than the lower" (TH, Personal communication, 18th September 2024)

This indicates that streaming high performing students and put them together seems to have positive effects on students' performance as well as making their future look bright.

4.2.6 The negative effects of streaming learners according to their ability to the performance of Mathematics at Ordinary Level.

4.2.6.1 It creates inequalities between students in the school

Students have the right to education without being subdivided in any form. By dividing them into groups according to their ability create social classes which may hinder students' cooperation in class and even in curricular activities. Some will feel superior over the other and other will feel inferior over their fellow students. TL and TH said that:

"Students in Arts class are feeling segregated as a result they hate school and drop out because they are struggling. We teach them simple topics so that they can be able to attempt some questions in their final examinations" (TL, TH, Personal communication, 16th September 2024).

A student from Art class responded that one of the disadvantages of streaming was that mathematics teachers focused on science class (high ability) and commercial classes (middle ability) mainly. The student mentioned that sometimes they were asked to go and copy the work that was given to the other classes.

This indicates that the teachers are not attentive to low ability students during the teaching and learning process hence the low ability group becomes a burden to high ability group. Also giving learners simple task won't help them instead, the proper techniques should be used to help learners to be able to do whatever has been designed for all students in the curriculum.

4.2.6.2 High streamed students performed much better while the low streamed students perform more badly

The study discovered that students in high ability classes are fast learners and grasp concept easily. The learners covered all the topic to be covered quickly and had much time for revision. Teachers enjoyed conducting lessons in high streamed classes because they did not put much effort to make learners understand any concept as compared to low ability streams. A student from Arts class responded that one of the disadvantages of ability grouping was that when they wrote the examination designed for the whole cluster and they assumed that they had covered all the topics they failed and their fellow students from Science class and Commercial class did well because they had completed the syllabus.

The discrimination by teachers sometimes discouraged some students in low ability streams and as a result, most students reduced their self-esteem towards learning.

4.2.6.3. School administration fail to cater for streamed intellectual differences

The researcher observed that teacher pupil ratio of different streams was not considered. Most classes of low ability students had many students of which those classes needed special attention. Some students needed one-on-one assistance in order to understand some concepts and that could only be possible if the teacher pupil ratio was not high.

The researcher also managed to observe teachers as they partook of the teaching and learning process and noted that classes were fairly large (45-50 learners per class). At one of the selected schools an 'O' level class had less than 40 learner which is manageable. The responses from questionnaires also showed the same teacher- pupil ratio. Since the Ministry of Primary and Secondary Education recommends that teacher-pupil ratios should be around 30 learners per teacher, the researcher noted that the 45-50 learners in each class were not feasible for individual attention when monitoring and assess work. If there was anything the teacher wanted to impart to learners using educational media, they had to go in turns. Again, the researcher observed that though computer laboratories were well equipped they were not in a position to accommodate more than 40 learners each time. Kasambira (2017) emphasized that large classes caused by over-enrolment were a cause for concern for educators who wanted to employ audio and visual instructional resources in teaching and learning.

4.2.7 Effects of streaming students according to their ability to the students

Table 4.4, showing students' responses to some questions

Questions	Responses		
	Yes	No	Total
Are you comfortable with the stream that you are?	45	15	60
After you were streamed, is there any improvement in the performance of mathematics?	50	10	60
Do you interact with other students from other streams?	38	22	60
Do students in different streams of your level write same end of year assessment test of mathematics?	60	0	60
Is there equal distribution of educational resources in different streams to enable teaching and learning process?	40	20	60

Source: Primary Data

The researcher used questionnaires as one of the research instruments. Most students from three schools were comfortable with the streaming strategy and were happy to be in the streams that they were in. Some teachers from the three different schools explained that the streaming of learners was done using the end of year assessment test done in form one and two. Others teachers said that the performance of learners in science subjects determine which stream she/he would be. All students from different streams wrote the same end of year assessment test. Thus, indicate that the streaming of learners was done fairly.

After the streaming of learners according to their ability, the majority from science classes and commercial classes said that their performance in mathematics improved. The learners who indicated that their performance was not improving were mainly from low ability class. This indicate that the performance of some learners deteriorated after they were put in low ability classes. Teachers also agreed that streaming improves learners' performance since teachers prepared and planned for the lessons catering for individual differences. The majority of learners from different streams interacted. Therefore, learners can share ideas through socialization and learn from each other. This can also improve the performance of learners academically. From the three selected schools, only one school indicated that the sharing of books is not done fairly. The teachers from that school said that new books are distributed to the science classes (high ability classes) because the learners are seen as responsible and well organized as compared to learners in low ability streams. The other two schools text books and other resources were distributed equally and fairly.

From the responses that the researcher got, she concluded that streaming of learners according to their ability is very important as it promote the improvement of performance academically and also help teachers to plan and prepare for teaching and learning process according to the intellectual of students.

4.2.8 Advantages of streaming learners according to their ability to the students

Streaming of learners according to their ability was an advantage mainly to the learners from Science and Commercial subjects. Student from Science class (high ability class) wrote that students work in groups of same ability and this boost their confidence. One of the students from arts class (low ability class) agreed that it is good to interact with peers of the same level in terms

of academic performance because they would not laugh at each other if one fail to attempt a task well. Other student from Arts class (low ability group) said that teachers had now spent much time explaining and gave more instructions. The researcher also observed that teachers in low ability streams took more time in the lesson explaining and giving instructions than in high ability class where learners understood the concept being taught promptly.

4.2.9 Disadvantages of streaming learners according to their ability to the students

Student from low ability class wrote that streams promote inequality as teachers and administration expect good results only from the high ability class and that also demotivated them. Other student also agreed saying that new mathematics text books were distributed to students in Science classes and old ones to the students in the arts class. Meaning there was unequal distribution of resources in different streams in other schools.

4.3 Discussion of the study findings

In this part the researcher is discussing the findings he obtained in the field in relation to different authors points of views.

4.3.1 Positive effects of streaming

From this study it was discovered that there are several positive effects of streaming students according to their ability. The study found that streaming help teachers' preparation and planning before the class. Preparation and planning hep the teacher to have knowledge content, teaching strategies and classroom management technics. Teacher also prepare accordingly to meet the needs of the class. Taylor et al. (2017) also found that teachers believed that streaming was easier

in terms of lesson preparation, and teachers feared that mixed-attainment teaching would add to their work load.

The study also noted that streaming help teachers to use proper teaching instruction activities related to students' abilities. Learners with different ability in understanding new concepts need different ways of teaching to ensure their needs are entitled. This is aligned with Mansor et al (2016) who say that appropriate instructions according to specific groups could avoid lengthy explanations that could reflect badly in the learning process. Kikaho, (2020) found that streaming has a high influence on teachers' preparation and planning before the class.

The researcher found that streaming of learners also improves the performance of learners. Learners feel encouraged and comfortable if they are streamed. This strategy of streaming learners according to their ability can lead to improved academic achievement, as students are surrounded by peers with similar abilities and learning styles. Mapolisa, (2016) supports that streaming promotes cooperation, hard-work and good results and also argue that those in the lower streams had negative attitudes towards streaming.

The study discovered that streaming motivates learners. Learner competes with other learners of their same level, so streaming is a tool for motivating learners to learn. Kikaho, (2020) researched that allocating students into high and low achievers streams it is one way of initiating a race between the two groups.

4.3.2 The negative effects of streaming

The study reviewed that students in low ability classes felt that they are inferior and believe that they are placed in the low ability streams because they are dull. In contrast the students from high ability classes felt superior and believe that they are the most intelligent. This is aligned

with Sweeney and Reid O'Connor (2024) who discovered that the issue of students' self-esteem in a streamed setting was a consequence that many teachers felt strongly about. It is also supported by Francis et al. (2020) who found that there was an increase in self-confidence for students in the 'high' attainment group and a decrease for students in the 'low' attainment groups.

The researcher discovered that the teachers in high ability class do not work as much as teachers in low ability streams because learners they grasp concepts easily. Some teachers tend to relax and leave them alone to do work on their own. Sweeney and Reid O'Connor (2024) also found out that teachers could become complacent educating the perceived high-ability classes, failing to extend them fully.

The study reviewed that streaming of learners according to their ability promote inequality among learners. High streamed students performed much better while the low streamed perform more badly and as a result the students from high ability groups get jobs in future. Teachers have low expectations over students in low class and expect higher from high stream classes. Kikaho, (2020) his study showed that students who have undergone the streaming practice are likely to face challenges in their future employment because of the system based on academics only.

4.4 Chapter Summary

This chapter displayed, discussed, analyzed and then interpreted the data gathered by the researcher. The statistical used to present the researcher's findings include: frequency tables and the table showing respondents' responses. Presentation of the data on the tables helped to compress the data, at the same time maintaining the original findings. This means that the tables enabled the data to be displayed in summarized form that eventually allowed the researcher to analyze and interpret it with ease. The presented data was analyzed in line with the demands of

research questions. Thus, the researcher tried to strike a balance between her findings, and the findings of earlier researchers. The researcher noted that there were no great disparities between her findings and those by other early educationists. Above all, the researcher discussed her findings, all the time noting the extreme values in the distribution of the respondents' responses.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter serves to summarize the absolute study, outline the conclusions drawn from the findings, propose possible recommendations basing on the findings, and suggest other research topics for further study. The findings of the study shall be given in relation to the research questions and objectives.

5.2 Summary of the study

This study was completed in 2024, and it was carried in GlenView/Mufakose District, Harare Province. The main purpose of carrying out this study was to explore the effects of streaming learners according to their ability to the performance of Mathematics at Ordinary level. The study involved 69 participants, among them 9 teachers and 60 learners. The second chapter referred to related literature, and a good number of authorities consulted highlighted the effects of streaming learners according to their ability in teaching and learning of Mathematics at secondary school level. The researcher analyzed the impact of streaming learners according to their ability as well as the positive, and negative effects of streaming students in teaching and learning of Mathematics.

A qualitative descriptive survey research design was preferred by the researcher to collect data for this study. The research design adopted by the researcher relied on oral interviews, questionnaires and non-participatory observations as key research instruments used to gather data for analysis. The oral interviews were conducted with class teachers while questionnaires

were administered on streamed students. On top of these research instruments, the researcher also made direct observations on the extent of instructional techniques in teaching and learning of Mathematics at Ordinary level.

The data collected from questionnaires, oral interviews and direct observations was recorded and presented on frequency tables. The data collected by the researcher indicated that there are several positive and negative effects of streaming students according to their academic performance. No serious challenges were encountered by the researcher, save for time constraints and limited resources to effectively move around schools to carry out the study.

5.2 Conclusions

This study investigated the effects of streaming learners according to their ability at Ordinary level in Mathematics performance. The study found that there are positive and negative effects of streaming students according to their academic performance. Therefore, to ensure that students from different streams acquired equal and quality education, the schools with the support of Ministry of Primary and Secondary Education provide aids, materials and conduct staff development workshops.

5.3 Recommendations

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RESEARCH INSTRUMENTS

QUESTIONNAIRE FOR STUDENTS

The researcher intends to gather data on the effects of streaming learners according to their ability to the performance of mathematics at Ordinary Level. Could you please fill in the questionnaire to the best of your knowledge. Do not write your name, and be assured that the data to be collected will be used only in this study.

Section A: Demographic Data

1. **Sex:** Male [] Female []
2. **Age:** []
3. **Level** Form 3 [] Form 4 []
4. **Stream** science class [] commercial class [] Arts class []

Section B:

The effects of streaming learners according to their ability at Ordinary level to the performance of Mathematics.

1. Are you comfortable with the stream you were put?

- Yes [] No []

2. After you were streamed, is there any improvement in the performance of mathematics?

- Yes [] No []

3. Is your teacher permanent or relief teacher?

- Permanent [] Relief []

4. How many are you in your class?

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5.Is there equal distribution of resources in different streams to enable teaching and learning process?

- Yes [] No []

6.Do you interact with other students from other streams?

- Yes [] No []

7. Do different streams of your level write same assessment test of Mathematics?

- Yes [] No []

8. What are the advantages and disadvantages of streaming?

- Advantages.....

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- Disadvantages.....

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9.What challenges are you facing from your stream?.....

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APPENDIX II: INTERVIEW QUESTIONS FOR CLASSROOM TEACHERS

Purpose: To explore on the effects of streaming learners according to their ability to the performance of mathematics at Ordinary Level.

Teacher' name:Gender: Age:

Level:Subject:

Interviewer:Interview No:

Date:.....

Briefly tell me about your professional and educational level.

What is your role in this school? How long have you been teaching?

1. How do the students assigned to their classes?
- 2.What was the aim of assigning students into different classes?
3. What do you expect in the performance of mathematics from different streams?
- 4.Do streaming guide you in preparation and planning of work?
5. What do you do to ensure that students actually have learnt equally and understand what they have been taught in different classes?
- 6.How do you know if streaming is effective or not?
7. What challenges are you facing in teaching streamed classes?
- 8 What is the reaction and also attitude of learners after streaming?

9. Is there anything else you would like to say?

Wrap-up

If you think of something else later, please feel free to talk to me.

Thank you for your time.

APPENDIX III: OBSERVATION GUIDE

The researcher shall observe the following:

Teacher - pupil ratio in streamed classes

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Availability of teaching and learning resources e.g text books, interactive board and how they are distributed

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State of instructional resources in the sampled school.

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Teaching instructions and methodologies used in different streams

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Behaviour of students from different streams

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