THE USE OF EXAMINERS' REPORTS IN BIOLOGY INSTRUCTION: A CASE OF KAVANGO EAST EDUCATIONAL REGION, NAMIBIA.

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ABSTRACT

This research study investigated teachers' use of examiners' reports in order to improve Biology instruction and the perceptions that teachers hold of these reports. The purpose of the study was to gain insight into teachers' use of examiners' comments during Biology instruction especially considering that similar comments seem to be repeated in examiners' reports year after year. Biology teachers seem to ignore the examiners' comments and therefore, the same comments as reflected in learners' answer scripts are repeated each year. The study was conducted in the Kavango East Educational Region of Namibia.

The study employed a mixed methods approach to generate both quantitative and qualitative data in two main sequential phases plus additional classroom observations which were meant to help augment data from the two phases. In the first phase, quantitative data was collected by means of a closed-ended questionnaire from the 16 grade 11 and 12 Biology teachers in the secondary schools in the Kavango East Educational region to provide information on the extent to which Biology teachers use examiners' reports, perceptions they hold of the reports and how they use the reports during instruction. The data from the first phase was then analysed, used to formulate questions and as well as select teachers to participate in phase two - the semi-structured interview which helped give in depth information and augment statistical

data from phase one. Eight of the 16 teachers participated in the interviews. Classroom observations were also conducted as a way to triangulate data. Four teachers were involved in classroom observations and were randomly selected from among the eight teachers who participated in the interview.

The findings from the questionnaire indicated that majority of the teachers consulted examiners' reports and the overarching response on perceptions teachers have is that they regarded examiners' comments as an examination drilling tool. Classroom observations however also revealed that teachers in the Kavango East Educational Region did not apply examiners' report comments in the classroom instruction regularly and consistently.

DECLARATIONS

I Lloyd Nsingo, do hereby declare that this thesis: Use of Examiners' Reports in Improving Biology Instruction: A case of Kavango East Education Region, Namibia is a true reflection of my own research, and that this work, or part thereof has not been submitted for a degree in any other institution of higher education.

_____ _____

Mr Lloyd Nsingo Date

APPROVAL PAGE

This research has been examined and approved as meeting the required standards for the partial fulfilment of the requirements of the degree of Master of Education.

_____ _____

Internal Examiner Date

_____ _____

Dean of Education Faculty Date

_____ _____

External Examiner Date

DEDICATION

I dedicate this thesis to

My parents Mr and Mrs Victor and Marina Nsingo

For your love, unwavering support, generosity and encouragement that helped me to rise above the times when the tides were too strong for me alone. I will always remember you both for inspiring me to undertake this transformational journey in my lifetime. Thank you for giving my academic life so much meaning.

My sons Daniel and David

For enduring long months of not being able to see daddy while I pursued my studies and allowing me to sacrifice the valuable time that I should have spent with you, for always believing in me and providing me with the remote motivation that kept me going.

I will always love you

Memory Nsingo

Thanks for caring for my precious boys in my absence. I am so indebted to you for that. I may not thank you enough but God will surely truly reward you for that.

God bless you

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- I thank God Almighty, without whose origin of wisdom, knowledge and sustenance my human pursuits would be in vain.
- Dr H. U. Kandjeo-Marenga, my main supervisor for her assistance and understanding throughout this research process. Her guidance and support were invaluable in extending my understanding of skills in research writing. She worked tirelessly throughout the process sacrificing even her free time to help bring success to this work. Dr Kandjeo-Marenga, thank you. You will forever hold a special place in my heart.
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LIST OF ACRONYMS

BETD Basic Education Teacher Diploma

BEd Bachelor of Education

CPD Centre for Professional Development

DNEA Directorate of National Examinations and Assessment

ER Examiners' Report

FR Frequency

JSC Junior Secondary Certificate

MEC Ministry of Education and Culture

MBESC Ministry of Basic Education, Sport and Culture

MoE Ministry of Education

NIED National Institute for Educational Development

NSSCO Namibia Senior Secondary Certificate Ordinary Level

NSSCH Namibia Senior Secondary Certificate Higher Level.

PGDE Post Graduate Diploma in Education

ZPD Zone of Proximal Development

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CHAPTER ONE

INTRODUCTION

1.1 Orientation of the Study

In Namibia, there is an examination body that provides feedback to schools, educators, policy makers, the whole Ministry of Education (MoE) in general as well as to candidates at the end of summative examinations written at the end of each academic year. The examination body Directorate of National Examination and Assessment (DNEA) gives assessment feedback in the form of written examiners' reports about each school subject on which candidates wrote examinations. The comments contained in examiners' reports are based on common mistakes and errors detected from learners' examination scripts country wide. Examiners' reports describe candidates' performance by commenting on every examination question in each examination paper and for each school subject that candidate sat for.

According to Tlebere (2005), performance on national examinations is used as an indicator of success of an educational system. However, in Namibia, the situation of poor performance of learners in Biology persists. For example, the overall performance of NSSC Ordinary level Biology candidates in the 2010, 2011, 2012 and 2013 is as outlined in figures 1 and 2 below.

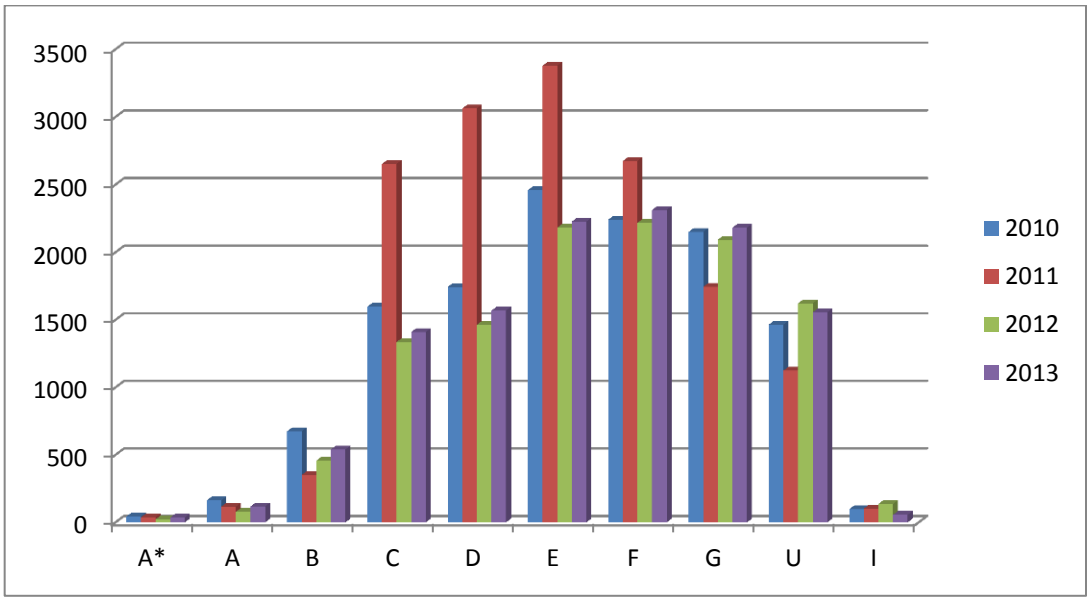

Figure 1: National Symbol distribution of Biology (NSSCO) Students over four years

Figure 1 is the national symbol distribution for Biology (NSSCO). Figure 1 shows that only 4,224 candidates out of 12,641 candidates who wrote biology examination in 2010 passed with an A* or A or B or C and D symbol; 6222 out 15,249 candidates who wrote biology examination in 2011passed with an A* or A or B or C and D, symbol; 3,359 out of 11,612 candidates who wrote examination in biology in 2012 passed with A* or A or B or C and D. symbol and 3,673 out of 12,003 candidates who wrote biology examination in 2013 passed with A* or A or B or C and D symbol. Overall the = 17, 478 out of 51,505 candidates who wrote biology examination passed with either and A* or A or B or C and D symbol over the four years. Thus, the majority of the candidates performed poorly, that is, received symbol E or F or G or Ungraded which is symbol U.

Symbol U denotes that the candidate did not score the minimum mark for the subject to even be graded whereas symbol I means incomplete and denotes that the candidate did not sit for all the component papers for the subject.

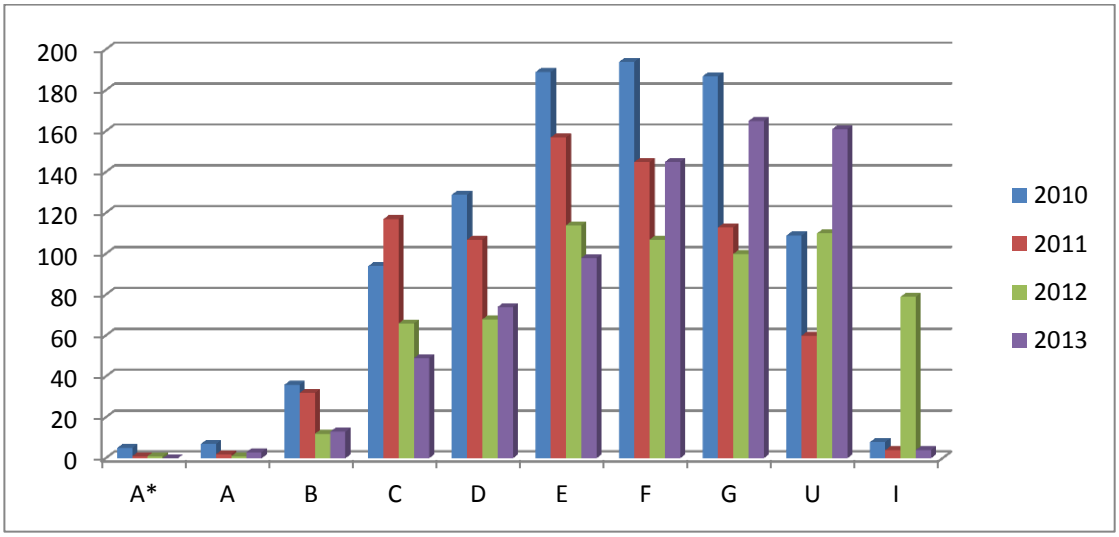

Figure 2: Kavango Educational Region Symbol distribution of Biology (NSSCO) Students

Figure 2 shows that only 271 out of 958 candidates who wrote biology examination in 2010 passed with an A* or A or B or C and D symbol; 259 out 738 candidates who wrote biology examination in 2011passed with an A* or A or B or C and D, symbol; 148 out of 658 candidates who wrote examination in biology in 2012 passed with A* or A or B or C and D. symbol and 139 out of 712 candidates who wrote biology examination in 2013 passed with A* or A or B or C and D symbol. Overall the = 817out of 3066

candidates who wrote biology examination passed with either and A* or A or B or C and D symbol over the four years. Thus, the majority of the candidates performed poorly, that is, received symbol E or F or G or Ungraded which is symbol U.

It is for this reason therefore that, the examiners' reports are one means through which we can learn how learners performed in past examinations, what mistakes were made by candidates as well as provide us examples on how to answer examination questions. These reports are accompanied by schemes of possible expected answers for each examination question and the comments provided by examiners focus on reinforcing good answers that were provided by candidates as well as highlighting those examination questions that seemed challenging to candidates (Muhaya, 2005). The examiners' reports also provide brief summaries about confusing terminologies as in some action words which are regularly used in examinations such as "discuss", "explain", "describe" etc. These reports, therefore, become a sort of formative and diagnostic tool that teachers and candidates could use to find out what previous candidates knew, understood, the challenges they faced in providing answers to examination questions as well as what can be done to inform future instruction (Popham, 2008). For example, the examiners' reports indicate that most candidates seem to misunderstand common science concepts, seem confused in understanding commonly used terms in examinations papers and most seem to struggle with verbs in questions such as describe, discuss and explain used by examiners (Ministry of Education, 2012).

Table 1 provides some of the examiners' comments on Biology examination papers 1 and 2.

Table 1: Examiners' Comments Provided for Biology Paper 1 and Paper 2

Examination Paper	General Comments by Examinaers	Reference
Paper 2	• Candidates did not read the instruction properly; • Candidates should pay attention to syllabus definitions and action verbs, e.g. describe, explain, define, outline, etc. (meaning of these words inclusive of their application).	NSSC-O Level 2012;
Paper 1	• Candidates did not read questions carefully • English still appears to be a big problem, candidates found it difficult to write the exact wording and gave vague anwers	NSSC-H Level, 2011
Paper 2	• There are still language problems in some centres. Candidates struggled with the language of the paper. • Lack of good understanding of the terminology demanded by the syllabus. (syllabus definitions of key terms). • Candidates need to be more precise in their answers • Lack of knowledge of Physical Science concepts that are needed to understand some of concepts in Biology	
Paper 1	• Candidates did not pay attention to the action verb word explain and explain how…	NSSC-H Level , 2012
Paper 2	• Encourage candidates to read each section of a question carefully • Not able to analyze graphs and should include numerical data to justify their observations. Candidates could not read off information correctly from tables and graphs • Lack of some Physical Science concepts' understanding that are essential in understanding many concepts in Biology. • Not able to distinguish between describing and explaining a phenomenon • Candidates did not read their questions properly and missed relevant information which was necessary to answer questions correctly	

In analysing the examiners' comments, one may realise that the comments could be valuable to both teachers and students in various ways. These comments could be used

by teachers in order to adjust their instructions. For example, examiners' comments could be incorporated into assessment for learning and as a consequence provide valuable information to teachers as well as to students. Assessment of learning focuses on students' responses during instruction with the intention to diagnose learning difficulties or improvement on the meaning of the science content and in so doing provide immediate feedback to students (Johnson & Jenkins, 2009). Moreover, any assessment is simply a means through which edvidence about teaching and learning is gathered (Black, 2013). Therefore, evidence given in the form of examination feedback from summative assessment or assessment of learning can be used formatively in improving teaching and learning rather being used in judgement of learners. Examiners' feedback is, therefore, deemed to be very necessary so that mistakes are not repeated and hence, improving the teaching and learning process (Wees, 2010; Brown, 2004) assert.

Teachers may also use the report to identify the strengths and weaknesses of previous students in order to set targets for future instructions and as well as to identify problematic syllabus themes/topics that would need further improvement (Popham, 2008). However, there seems to be a problem that goes along with examiners'reports, that of most teachers seemingly lacking information on how to analyse and interpret the feedback from examiners' reports (Viljoen, 2011). Elmore (1996) reports that a number of authors point to the fact that not all teachers have the capacity to translate data of external assessment into practices that may enhance learner performance. It is for this reason that in South Africa, an intervention programme known as the Data Informed

Practice Improvement Project (DIPIP) was introduced at the University of the Witwatersrand. This programme is aimed at assisting teachers to use the results of summative assessment (University of the Witwatersrand, 2010). It helps teachers to engage in discussions focussed on lesson plans as well as on highlighting misconceptions relating to errors learners make. As a result teachers learn how to detect the reasoning behind common errors, enabling them to support learners.

A research conducted by Teaching and Learning Research Programme conducted in the UK from 2001 – 2005 also found that the "spirit" of assessment for learning whereby teachers use assessment feedback from summative assessments for classroom instruction was hard to achieve and that teachers required support in the form of workshops (Mansell, James & the Asessment of Reform Group, 2009).

The National Curriculum for Basic Education (Ministry of Education [MoE], 2010) states that there are two modes of assessment used in Namibian schools, "formative continuous assessment" and "summative" assessment (p. 28). Formative assessment (FA) and continuous assessment have significant similarities in that "they occur concurrently with instruction … teaching to improve learning" (McTighe & O'Connor, 2005, p. 12). "Continuous assessment, also called formative assessment refer to procedures that consist of regular, informal and formal assessments made during the school year" (MBESC, 1999, p. 8). Formative assessment (FA) has two general categories: formal and informal assessment. Formal assessments usually have numerical

data which support the conclusions made. This data is usually gathered from exercises that assess specific competences in the syllabus (MBESC, 1999, p.7). Informal assessments are not usually data driven but are rather content and performance driven. "They are not necessarily carefully planned, but they are meant to provide you (the teacher) with information that is critical for you to know at that moment" (MBESC, 1999. p. 7). They are normally conducted while the learners carry on with their normal classroom activities during the term. MBESC (1999) claims that formative assessment (FA) is meant to "improve learning and to help shape and direct the teaching learning process" (p. 8). The MBESC (1999) further stresses that any assessment made at the end of the year that includes cumulative progress is summative. Summative assessment "takes place at the end of the course or unit to see if the student has achieved the objectives of the programme and is usually done as a formal test covering content of the course" (Quinn & Hughes, 2007, p. 268).

In order to ensure that all the learners are assessed progressively during their time at school, the Ministry of Education has divided assessment practices into phases. Assessment can be carried out at the Lower Primary phase (Grade 1-4), Upper Primary phase (Grade 5-7), junior Secondary phase (Grade 8-10) and the Senior Secondary phase (Grade 11-12). In the Junior Secondary phase both informal and formal continuous assessment are employed. Grades 8 and 9 take internal end-of-year examinations in each subject, while Grade 10 external examinations constituting summative examinations are taken at the end of Grade 10. In other words, learners' national examination results for

Life science are made up of continuous assessment (CA) plus an examination mark (MoE, 2009). In grade 12, Biology candidates sit only for the externally set papers. No continuous assessment is applied at this level.

Notwithstanding, assessment poses challenges whether it is continuous or not. Some challenges associated with CA are; the ability to make valid, reliable, free and fair judgement of learner performance in Namibian schools. There is, also, a strong perception that continuous assessment creates more work for both teachers and learners (Marongwe, 2012). Further, Marongwe (2012) in his studies mentions that, there is a general lack of assessment literacy among teachers. For instance, at grade 12 level, where no CA is applied, teachers face challenges of having little or no knowledge about assessment; have problems with questioning techniques as well as with evaluating the effectiveness of their own explanations (Ninnes, 2011). This study, therefore, intends to find out how Biology teachers utilize examiners' feedback. In addition, the researcher wants to find out the perceptions teachers have about the feedback they receive from external examiners.

1.2 Statement of the problem

The Ministry of Basic Education and Culture [MBESC] (1999), states that without assessment in teaching it would be difficult to tell whether any learning has taken place or not. This view is supported by the Ministry of Education [MoE] (2006, p.23) which

states that good assessment provides "a reliable picture on progress of the learner towards achieving basic competencies of the syllabus and towards acquiring life skills competencies". January (2002, p.16) argues that "learners should actually learn more as a result of assessment". Assessment should thus have a formative role in education in order to motivate learners to extend their knowledge and skills and establish sound values (Ministry of Education, 2009). The document further states that assessment should also help build a positive self image and inform teachers to improve teaching methods and learning materials.

However, a UNICEF report on the assessment of the Namibian educational system conducted by Ninnes (2011, p.12) revealed that: teachers failed to present ideas in a logical way; teachers failed to reinforce concepts with approriate examples; and teachers had poor questioning techniques that failed to encourage higher level thinking. Further, a study conducted by Van Der Merwe (2011) on behalf of the Ministry of Educaton on how teachers use NSAT summative examination reports (equivalent of examiners' reports), also had the following interesting findings reported: that many teachers were not using reports and that many did not even have a copy of the report; that the level of use of the reports varied from school to school with those using the reports in the minority; 50% of the school Principals admitted not monitoring the use of the reports by teachers and that teachers found interpreting information contained in reports difficult.

Since assessment, in general, is meant to improve the teaching and learning processes, feedback should be aligned to teachers' instructional practices as well as informing students' performance. Marongwe (2012, p.1) asserts that teaching and learning practices "could be measured by assessment results and that the outcomes could be used to reshape the teaching and learning process". However, in Namibia, when analysing the comments made by examiners, one realises that similar comments that appear to be repeated in the different examination reports in different years. This situation is further exacerbated by the national average of learners passing Biology (NSSC) with symbols A* - D for the years 2010 – 2013 being 2,090 out of a possible 13,167 candidates (See Figure 1). "Are teachers aligning such feedback to teaching practices and formative assessments to assist candidates perform better in summative examinations?" For example, comments in relation to poor *explanation* of scientific concepts kept being repeated in various years' examiners' reports.

> ***Question 3 (e): "****Better candidates gave the correct* ***explanation,*** *but very few referred to blood pressure and ultra-filtration" (*Ministry of Education, 2010, p. 26*).*

> ***Question 4 (b) (ii): "****Many candidates could not score the maximum marks because their* ***explanations*** *were vague" (*Ministry of Education, 2011, p. 19*).*

> ***Question 2 (iv): "****This question was not well answered. Candidates <u>again</u> failed to* ***explain****. They referred to hemoglobin as being saturated with CO. Many also could not* ***explain*** *where the CO came from" (*Ministry of Education, 2012, p. 25-26*).*

To further illustrate the problem, repeating comments are not only restricted to papers year after year but noted also in single Biology papers for a particular year. Below is an excerpt of repeating examiners' comments in relation to poor **explanations** from within a single **Biology Paper 1 for 2012**:

> ***Question 1 (iii): "Overall*** *this question was poorly answered. Candidates did not pay attention to the action word* ***explain****. Candidates must refrain from vague answers that just repeat the information given in the stem of the question without* ***explaining how…"(***Ministry of Education, 2012, p. 25*)*
>
> ***Question 2 (iv): "****This question was not well answered. Candidates again failed to* ***explain****. They referred to hemoglobin as being saturated with CO.*
>
> ***Question 3 (ii):*** *Overall this question was well answered. However, a large percentage of candidates could not* ***explain*** *that glucose was broken down incompletely into pyruvate..."(Ministry of Education, 2012, p. 26)*

> ***Question 5 (iii): "****Another poorly answered question. Many failed to* ***explain*** *the concept of double fertilisation. Teachers must emphasise the difference between animal and plant gametes and explain that a pollen grain* ***is not*** *a male gamete cell (Ministry of Education, 2012, p. 28).*

The above statements as provided in the examiners' reports signal the need for urgent attention to focus on during instruction. It is against this background that the purpose of the study is to have an insight into how teachers in the Kavango East Educational Region use examiners' reports and what types of perceptions they hold about the feedback as provided in examiners' report. The study further attempts to fill the gap in the literature.

1.3 Research Questions

The study sought to answer the following research questions:

1. To what extent do Biology teachers use examiners' reports?
2. What are the Biology teachers' perceptions of examiners' feedback?
3. Do Biology teachers use examiners' feedback in their classes?

1.4 Significance of the study

The results of study will be useful to policy makers and stakeholders in the education sector. The study might provide them with information that might allow them to establish in-service- training for teachers on how to use the feedback given by examiners. Learners could also be given information about common mistakes that previous learners made so that they could avoid repeating the same mistakes year after year.

Regular short-term workshops could be used in order to train teachers on learners' mistakes and misunderstandings as well as to assist teachers with strategies on how to approach such mistakes. In particular, it is also hoped that the study will help give policy makers and administrators an idea of perceptions that teachers hold that might be detrimental to effectively use examiners' reports in order to improve their instructions or even assist learners to ameliorate the shortcomings and hence offer courses that could be geared towards correcting teachers' perceptions. Finally, it is hoped that after observing how teachers apply examiners' comments in their classrooms, Biology teachers could be familiarized with how to interpret examiners' comments and in that way practice appropriate teaching strategies as well as revision strategies that will benefit learners in performing better in summative examinations. This could also be done by utilising

short courses and reinforcing what is learnt by using subject advisors as they conduct classroom observations.

1.5 Limitation of the study

The major constraint was with time tabling procedures in conducting classroom observations. The idea was to conduct the study at a time when all participating schools were covering the same Biology topic in the syllabus in order to have a single observation checklist per topic that would make comparison easy. However, due to distances between the schools and the varying pace at which teachers covered the syllabus content, this was not possible. The researcher, therefore, made arrangements with the participating teachers to allow for lessons to be audio and video recorded. The recordings were then analysed in relation to the examiners' report comments to check if teachers were making any references to examiners' feedback.

As a result, because classroom observations and video recording in their natural environment has the potential to disrupt normal flow of classes, this may have impacted on the desired scenario of having the lesson flow as naturally as would be under normal circumstances (Creswell, 2013). This may have defeated in part the research's purpose for the observation. The researcher, however, ensured minimal disruption to classes and sat in the back of the class where his presence as

the lesson progressed was inconspicuous and his presence probably was soon forgotten.

Lastly, some participants especially in rural schools still felt uncomfortable with the researcher conducting the study believing the researcher was an official from the Ministry of Education even with the appropriate documentation in hand, and anonymity assured. This may have impacted negatively on data collected. However, this affected only a few schools.

1.6 Delimitation of the study

This study was limited to Grade 11 and 12 Biology teachers only. Biology teachers were targeted because they were assumed to be information rich individuals whose learners take summative examination at the end of Grade 12. The study was conducted in selected senior secondary schools of the Kavango East region in Namibia.

1.7 Definition of terms

The following terms should be understood as defined in this section:

Feedback: In this study is conceptualised refers to as information provided by an agent (e.g., teacher, peer, book, self or experience) regarding aspects of ones' performance or understanding. (Hattie & Timperley, The power of feedback, 2007).

Perception: It is defined as the process by which organisms interpret and organise sensation to produce a meaningful experience of the world (Pickens, 2005). In this study perception is the way a person uniquely interprets a given situation or scenario to come to a decision.

Assessment: Assessment refers to the process of collecting information from learners about their experience of learning in the class (Kubiszyn & Borich, 2010). There are different ways of collecting information, depending on what kind of information is needed.

1.8 Summary

This chapter introduced the research study, an inquiry into the use of examiners' reports and perceptions thereof, of Biology teachers in the Kavango East Educational Region in Namibia. The chapter provided a brief description of the research landscape, statement of the problem, research questions, and significance of the study, limitation of the study and definition of terms.

1.9 Research Synopsis

Chapter One provides an introduction to this thesis by giving the background and the context of the study without which there will be a gap between the aims and the rationale of the study. Moreover, it introduces the research questions, which provide a basis upon which the research is conducted.

Chapter Two is the literature review which focuses mainly on literature on assessment feedback (formative and summative). Literature on the formative nature of summative assessments will be looked into. Importance of feedback is discussed in general and how such feedback could be used in education to improve instruction. Reference will also be made to the perceptions that teachers may of feedback and how this could affect feedback from external examinations.

Chapter Three will consist of methods of data collection. The research methods and the selection of data as well as the rationale will be highlighted. Data collection instruments include: questionnaires, semi-structured interviews, and classroom observations.

Chapter Four will present the findings of the research, analysis and discussion of the results according to research questions.

Chapter Five will highlight major findings and draw conclusions and then make recommendations for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to provide a contextual backdrop to the study by exploring the literature on the following four key issues: Theoretical framework; feedback from assessment; importance of feedback to teaching and learning; and teachers' perceptions of assessment.

2.2 Theoretical Framework

The study is informed by Vygotsky's social constructivist theory of the Zone of Proximal Development (ZPD). Vygotsky (1978) in his own words defines the ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). The concept of ZPD suggests that in the learning process learners first encounter problems or tasks which they cannot easily solve alone but which, with the help of peers, teachers and other adults, they are ultimately able to accomplish. Vygotsky believed that when a learner is at the ZPD providing the appropriate guidance by the adult or scaffolding

would help that learner progress. Scaffolding is a term that was coined by Bruner to describe the type of assistance offered by a teacher or more competent peer to support teaching and learning process (Adrian, 2014). Scaffolding can take a variety of forms and Vygotsky argued that teachers need to provide opportunities to learners that will enable them to have managed discussions about their learning.

For example, discussion should be based on substantive comments that could be built on successive meaningful exchanges between learners and the teacher or learners amongst themselves. Such discussions should be based on questions that should promote deeper understanding of concepts. Vygotsky further suggests that the ZPD is important in the learning process because it defines "those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state" (p. 86). Therefore, there is a need for teachers to be able first to identify what the problem of the learner is before they can offer any meaningful assistance to help in their learning.

The theory of ZPD is appropriate in this study because Biology teachers might make use of feedback from assessment in order to help them identify areas where learners are failing and, thus, helping them to learn. As the more knowledgeable ones, teachers act as 'experts' who are able to decipher the meaning from examiners reports and use that to scaffold their learners in the learning process. In formative assessment, teachers are involved in a continuous process of evidence gathering and interpretation of information

about what learners have learnt. In doing this, they structure learners' learning and their own teaching practices that build on what Vygotsky refer to as the "ripening functions" (Vygotsky, 1978, p. 78) in teaching and learning environment. It follows, therefore, that feedback from summative assessments, which usually indicates strengths and weaknesses of learners from previous examination would form a basis of knowledge which the teachers could use to identify the learners' level of ZPD. When the learners' level of ZPD is, thus, established by utilising feedback obtained from summative assessments, teachers could easily offer assistance to learners in their learning, thereby targeting those areas identified in examiners' feedback from the reports.

The Ministry of Education and Culture [MEC] (2003) stresses that a strong triangular relationship between teachers, learners and teaching aids should exist. The importance of the teacher (expert) cannot be overlooked in the teaching process as such a teacher can offer assistance to learners in acquiring knew knowledge. Summative feedback in this case could, therefore, help the teacher (expert) to quickly identify learning difficulties and offer opportunities or assistance to learners in acquiring new knowledge.

Heritage (2010) used Vygotskys' theory (ZPD) and clearly connected it to assessment showing that he viewed learning as a social process in which learners collaborate with the "more expert others" (p. 7). Heritage further distinguished between two levels of development: firstly, the level at which the learner is capable of solving problems independently and secondly, the level of potential development called the "The Zone of

Proximal Development". This is the level at which the learner is capable of maximally reaching under the guidance of the more expert individual or in this case, the teachers and/or in collaboration with peers. Thus, the ZPD is the area where learning takes place through a process of scaffolding. Scaffolding occurs in the teaching process when the "more expert other provides support through a process of interaction".

She argues that in formative assessment teachers are continuously involved in a process of evidence gathering and interpretation so as to structure learning that builds on maturing functions as espoused by Vygotsky. For example, a teacher asking leading or probing questions to elaborate the knowledge the learner possesses, or providing feedback that assists the learner to take steps to move forward through the ZPD. Heritage further urged teachers to use formative assessment ensuring that they are consistently working in learners' ZPD, the area where learning takes place.

The current study attempt to show that feedback from summative assessment in the form of examination report comments could be used formatively in the class to move learners forward through ZPD easily. The feedback from examiners, then, becomes like ready to use information which gives teachers an immediate indication of the level of difficulties their learners might be experiencing. Examiners' feedback is, in essence, like a summary of areas where the majority of learners struggled and where they did well throughout the country. Thus, using such comments, in correcting instruction and giving support

(scaffolding) in learning, might be a good place to start with classroom instructions, especially where examiners' feedback keeps being repeated year after year.

Lee and Songer (2004) also conducted a quasi-experimental study to investigate effects of scaffolding on 48 learners at a Mid-Western, USA school. They divided the learners into two groups; one that would receive consistent support (e.g. examplars, questions and sentence starters) and the other that would receive fading support where scoffolding was gradually reduced. After 8 weeks, both treatment groups exhibited pre to post test gains in knowledge about material they covered. However, as scaffolding was reduced, the consistent group outperformed the fading support group in their knowledge of topics covered. They argue that the initial gains recorded by both groups were as a result of the fact that both groups received scaffolding. When this was reduced for the fading group, the consistent group outperformed the fading group. Clearly, Vygotskys' theory that learning is enhanced in the ZPD through scaffolding as it was demostrated in this study. The consistent support group got examplars, were asked questions and got clues and as a result showed marked improvement in learning.

Adrian (2014) conducted a study in order to investigate how technology could be used to scaffold science learning at the National University of Singapore. Among many disciplines where technology was used to scaffold learning, he used online quizzes to test learners' understanding of concepts. Learners would take quizzes after a topic and

this would act as a good gauge for their understanding as well as provide information to fine-tune his lectures. This proved very useful in helping student learning and understanding. Again, Lee and Songers' 2004 explored with the use of Vygotsky's (ZPD) theory to justify that feedback could be used to fine-tune instruction.

In this study, therefore, examiners' feedback is part of what teachers might use in order to identify learners' learning difficulties and thereby, providing scaffolding in enhancing the development of their ZPD and help the learner to improve their knowledge acquisition. It is, within this context that this study draws on Vygotsky's theory that learners who are at different levels of ZPD could be assisted by using feedback from summative assessments in order to guide them on how to avoid making similar mistakes in the future.

2.3 Feedback from formative and summative Assessment

The classic definition that this study will adopt of assessment is that mentioned by Airasian (1997) where he defines assessment as "the process of collecting, synthesising, and interpreting information to aid in decision making" (p. 3). Assessment without feedback seems inadequate. Siham (2012) states that assessment becomes important not only as a means of finding out how both the assessed and assessee are doing but also as a

means of providing feedback to the assessed and the assessee. Thus, the main aims of assessment, be it formative or summative, are to:

- Diagnose learners' strength and needs,
- Provide feedback on teaching and learning,
- Provide basis for instructional replacement,
- Inform and guide instruction,
- Communicate learning expectations,
- Motivate and focus learner attention and effort,
- Provide a basis for learner evaluation,
- Gauge programme effectiveness (MoE, 2009, p. 5).

In scrutinising the above mentioned aims, the reseracher identified few of the aims that could be applicable to the current study. For example, diagnosing learners' strengths and needs; providing feedback on teaching and learning; provididng the basis for instructional replacement as well as to informing and guiding instruction, are but some of the aims that show why feedback from formative and summative assessments is important (Harlen, 2005). It is also imperative to note that "formative" and "summative" are not simply labels of different types or forms of assessment, but the terms also imply how such assessments are used (Mansell, et al., 2009).

As Fisher and Frey (2007) state that “any one who has ever played or coached a spot already understands that ongoing assessments and adjustiments are key to improved performance” (p.vii). A coach will keep making a judgement on how the team played after a match, and then use the feedback during practice to take corrective measures likewise assessment in the education setting. Thus, the purpose for which assessment is administered and the kind of information we aim to gather should determine how that information is used. It is important that assessment is not an end in itself, but a means to something else, and in this case, a means to improving teaching and learning.

Black, Harrison, Lee, Marshall and William (2003) and Johnson and Jenkins (2009) consider formative assessment as any activity that can help learning if it provides information to be used as feedback by teachers, and by their pupils in assessing themselves and each other, to modify the teaching and learning. They say that assessment becomes formative assessment when the evidence is used to adapt teaching work to meet learning needs. In addition, Johnson and Jenkins (2009) state that formative assessment provides immediate feedback to both the teacher and the learner regarding the learning process. For example, in the school context, if a particular skill is assessment then formative assessment would be concerned with further development of such a skill by the learner who was assessed. For example, teachers at the classroom level collect information about a learners’ learning, make corresponding adjustiments in their instruction, and continue to collect more information.

William (2006) notes that what makes an assessment formative is not the length of feedback, nor where it takes place, nor who carries it out but that the crucial feature is that evidence is elicited and used to make adjustiments to better meet learning needs. Therefore, if biology teachers used issues emerging from examiners' feedback, they could identify some learning difficulties in one way or another that could assistance to learners and could plough back in their teaching (Stagins, 2007). Teachers could use the feedback to adjust their teaching on those reccurrent issues and as a result improve learners' performance in summative examination.

Furthermore, summative assessment can provide very useful information about learners' overall learning as well as give an indication of the quality of teacher instruction (McMillian, 2013). Therefore, it is upon this statement that the current study intends to investgate how the examiners' feedback are used in order to enable the Biology teachers plough back into their teaching and assist learners in their learning process. For example, when a teacher gives assessment and gives learners feedback, such a teacher is considred to be the "cook" tasting the food, adding few spicies and all other goodies to make it taste good, and then when learners write summative examinations, then it is the guest (examiners) tasting the food and making judgements of whether the food is good or bad.

2.4 Challenges associated with assessments

The majority of assessment systems have many challenges. Kubiszyn and Borich (2010) state that:

> … an assessment's usefulness can vary depending on the competency of the people adiministering, scoring and interpreting the assessment. An electric drill can be very useful in the hands of a competent electrician who is skilled in carefully drilling holes in a wall while avoiding the electrical and water lines behind the wall. The same drill may be far less useful, and even dangerous, in the hands of a child or in the hands of an adult who acts like a child (p. 5).

The process of assessment is not without hiccups. In Namibia, for instance, formative assessments are meant to motivate learners to extend their knowledge and skills to establish sound values (Kruger, 2004; MoE, 2009). However, even with the beautiful strategies and the availability of good assessment tools, learners continue to perform poorly in examinations (MoE, 2010; 2012; 2013). Shute (2008) states that formative assessments ellicit feedback that is used by the teacher to modify instruction and is communicated to a learner to modify his or her thinking or behaviour for the purpose of improving learning. Although summative assessment is meant to provide information about the total teaching and learning of the intended learning outcomes and the extent to

which examination assessment aligns with learning outcomes, such indicators are hardly available (Johnson & Jenkins, 2009).

Hattie and Timperley (2007) conducted a study over a 10 year period that involved a total of 12,652 participants. The purpose of the investigation was to explore the effect of different factors that influence learners' achievement and reported that where feedback was given to learners their educational achievement improved. Moreover, Hattie and Timperley, caution that

> Feedback has no effect in a vacuum; to be powerful in its effect, there must be a learning context to which feedback is addressed. It is but part of the teaching process and it is that which happens second after a student has responded to initial instruction when information is provided regarding some aspect(s) of the student's task performance. It is most powerful when it addresses faulty interpretations, not a total lack of understanding (p. 82).

The underlaying point here is that assessment feedback is helpful but there must be an attempt by the learner first, then the teacher would give feedback to correct the misunderstanding.The implication is that, teachers may not be aware that feedback without a certain level of understanding of the content would not be helpful.

For example, when children play with computer video games, they never fear to lose because if they do they press the reset button on the game console and the game starts all over again (Dirksen, 2011). Children, then, keep repeating the process of reseting the game each time they seem to be losing until they get the required skill that can enable them tackle the challenges of the current level of the game and go on to the next level. Thus, assessment coupled with feedback gives learners a second chance to learn the concept and skills that they have not mastered the first around. In other words, feedback provided after formative assessments provides learners with relevant information in order to avoid failure (Shute, 2008) and by so doing feedback after assessment becomes a learning experience rather than something to fear. If teachers used feedback as a tool to gauge understanding, they would then re-teach those areas challenging to learners and in doing so give them a second chance to master material and move to deeper understanding of science content.

It appears that feedback is not an easy task for teachers and requires appropriate planned feedback. Waters (2012) notes some of the difficulties teachers have in implementing and providing feedback. One of the problems teachers face is to teach and carry out assessment during instruction. For example, every minute a teacher spends on assessing learners, giving feedback, is a minute is lost to instruction. This then becomes a difficult choice to make, to either concentrate more on assessments or instruction as well as to

conduct meaningful assessments. Thus, teachers might sacrifice assessment inorder to complete the syllabus in time.

In addition to the abovementioned difficulties, Booyse (2014) also stated that one of the challenges teachers face, is to determine what kind of questions to ask in order to establish the learners' level of understanding. Shavelson, et al., (2008) suggests that to find the gap between what learners know and what they need to know, teachers have to develop a set of central questions that get to the heart of what is to be learned in a specific lesson. The majority of teachers seem to struggle with establishing what learners had not grasped in the lesson and what to re-teach (van der Merwe, 2011). Moss (2013) also reports that most of what happens in the classrooms is shaped by external feedback. For example, summative assessments results are used as indicators of the extent to which teachers instruction to their learners faired. Therefore, teachers will tend to do what will help them in ensuring learners do well in assessments without bothering to see if real learning took place (Callingham, 2008).

O-Saki and Ndabili (2003) conducted a study on the motivational factors of national examinations in Tanzania. Their study investigated the factors that motivate teachers during national examinations and they found that teachers focus mostly on success in examinatons at the expense of general knowledge and understanding as well as leaving subject content out which is not assessed in the examination. This is important in this study because like Tanzania, examinations in Namibia are an indicator of success and

teachers may focus on examination success at the expanse of general knowledge of learners.

Feedback from this process is, therefore, usually very useful for teaching and learning. In the same vein, Namibian, schools are supplied with examiners' feedback that seems to be very useful for teaching and learning. So teachers could, thus, look up for areas that require constructive improvement in their teaching and overall assists to improve learners' overall performance.

2.5 Importance of feedback in teaching and learning environment

The product of any assessment process as indicated earlier is information (feedback) which is used for aiding in decision making about teaching and learning process (Airasian,1997; Brown, 2004; Dixon, 2008; Dirksen, 2011 & McMillian, 2013). The factor worth noting is how the information (feedback) from the assessment is used. Feedback is defined as "information provided by an agent (e.g. teacher, peer, parent, self, experience) regarding aspects of one's performance or understanding and is one of the most powerful influences on learning and achievement…" (Hattie & Timperley, 2007, p. 81). It is not the assessment that has a powerful effect on teaching–learning process but rather how feedback is provided and used (Broadfoot & Black, 2004). Thorndike (1931) propounds that simply repeating tasks without knowledge of the results is not an effective learning strategy.By this, he means that results must be used to

see what changes could be made to the teaching-learning process and not applying the results, he calls a not so effective learning strategy.

Assessment is viewed as formative when feedback is used to shape learners' learning as well as doing something contigent on the outcome of learners' learning (William,2006;Lamprianou & Attanasou, 2009; Dirksen, 2011; Viljoen, 2011; Clarke, 2012). For example, when judgement is not used for improving learning and just used literaly, then, it stays general feedback. Thus, feedback could only be used to assist the teaching and learning process if feedback is ploughed back into the teaching and learning.

Heritage (2010) alludes to the fact that formative assessment enables teachers and learners to consistentently work on the ZPD through scaffolding activities. Scaffolding, then, will be used by teachers to support learners by providing feedback and re-teaching areas that learners experience difficult with. Feedback, thus, is not all about grades and scores but that such results from this process can be used for teaching-learning (Dirksen, 2011; Weimer, 2013). Dirksen (2011) state that:

> …by taking the students' results and using that feedback information to develop instruction designed to improve student outcomes, either through reteaching information on which students performed poorly

or by changing how the information will be delivered in the future (p. 28).

In other words, feedback could be used to alter teaching-learning process for the next set of learners. So mistakes made by the previous year' group of learners and highlighted in examiners' reports could then be used as an opportunity to adjust instruction and ensure mastery of that content is achieved for future learners. Adriana (2009) conducted a study to evaluate the effectiveness of a new library instruction innovation. New learners where first lectured and then would write an online test. Test results where then used as feedback to adjust instruction given to learners, especially, in areas they performed badly. The method proved to be a very effective in ensuring that learners understood library functions. Further, Lewis and Sewell (2007) also conducted a study to investigate the effectiveness of providing feedback of computer-aided assessments. Two different groups doing two different courses where given a computer aided assessments that also generated feedback in the areas they had done well as well as those they had done badly. The results indicated that there was no difference in the performance of the two groups and the two groups showed a marked improvement from their pre-test to post-test performance. The learners also reported that the feedback had been very helpful.

Further, South African Educational Department took cognisance of the importance of the feedback provided after assessments by introducing policy guidelines for how teachers could use Annual National Assessments (ANA) results in identifying areas of strength and weakness in order to adapt their planning in a corrective way (Department

of Basic Education, 2010). Teachers took into consideration the feedback from the national assessments and use these to improve their instruction and learning. Darling-Hammond and Wentworth (2010) carried out a comparative study in about ten countires considered to have a high performing educational systems. The main purpose of the study was to investigate how those countries handle issues of assessment. As they carried out their investigation in each of the 10 countries, they came to the conclusion that high performing educational systems around the world do well because they all seem to consider assessment feedback (formative and summative) not as a disjointed element of education but as useful sources of information that provides feedback information that they use to shape future learning.

Raveaud (2004) conducted a comparative study on how assessment can be used to improve learning and the perceptions of teachers in making choices of their pedagogic and assessment strategies. He found out that teachers in French schools dissociate their assessment of a piece of work from the learners' who produced it because they felt assessment affected their learners negatively whereas in English schools teachers took a more holistic approach by assessing the whole learner through their work. This resulted in the learners of English teachers performing better in class. So as a result, Raveaud recommended that assessment should be strongly related to other pedagogical factors and concluded that assessment should not stand outside teaching and learning process, but stands in dynamic interaction with it. Sethusha (2012) argues that assessment guides

the entire process of teaching and learning by providing mutual feedback to learners and teachers in order to improve in their respective tasks.

Tlebere (2005) investigated the use of feedback in improving English in Lesotho secondary schools and observed that teachers who were involved in the marking process adjusted their teaching and this resulted in improved instruction and learners' performance in general. In addition, these teachers did not consult examiners reports and they still adjusted and improved their instruction as compared to those teachers who were not involved in marking examination scripts and did not consult examiners' reports. The assumption is that these teachers were able to transfer and apply knowledge acquired from marking to in their instruction practices. Muhaya (2005) conducted a similar study in Kigali, Ruwanda on the use of summative assessment feedback to improve teaching and learning. It was observed that teachers who were involved in the examination marking process also adjusted and improved their instruction as compared to their colleagues who were not involved in marking process. Since the assumption is that teachers involved in marking adjusted improved their instruction by merely participating in marking and seeing learners mistakes, encouraging teachers to read examiners comments might help them adjust and improve their instruction as well.

2.6 Teachers' perceptions of assessment

As Popham (2009) put it, undesirable teachers' knowledge and beliefs about educational assessment may have the potential to cripple the quality of educational outcomes. Generally, teachers may have certain experiences and preconcieved ideas about assessment which would impinge on how they interpret issues about assessment. Tang and Harrison (2011) state that "the issue of how teachers perceive the role of assessment will impact significantly on their feedback approaches, amount of detail of their feedback and the amount of time and effort expended on feedback provision" (p. 583). This is reported in their study carried out in Britain which yielded three sets of teacher beliefs: (i) those who saw assessment feedback as not important; (ii) those who saw it as being important but did not do much to give feedback and (iii) those that saw it as very important and gave very detailed information underlining every error learners made. They found that prior experiences of the tutors concerning assessment feedback drove the decision the tutors made. Teachers are said to hold strong views about teaching and learning which they have difficulty changing.This is confirmed by Dixon (2008) who explains that

> Teaching as a profession is unique in that all who enter the profession have had extensive experience of it, built up over the many years spent in classrooms as pupils. Hence, those who enter the profession already have a pre-existing set of beliefs about teaching and learning based on, and reinforced by, their own experiences (p. 49).

Vandeyar and Killen (2007) conducted a study in post-apartheid South Africa and identified three types of teacher-centred perceptions about assessment. Teachers in this case held on to their perceptions of assessments even when they were introduced to new and better methods of assessment. It seems that when most teachers are asked about their views about assessment, they tend to give what I term "politically correct answers". Alkahrusi, Aldhafri, Alnabhani and Alkalbani (2012) conducted a study about teachers'perceptions towards assessment and observed that, although most teachers claim to hold a favourable attitude towards assessments, most of them demonstrate a low level of knowledge about educational assessments.

Among many other factors, talking about feedback to learners who perform poorly may create a situation that evokes strong or negative emotions (Steinberg, 2013). Steinberg furthermore, says teachers feel encouraged and motivated to go on when learners do well but are disappointed and filled with self-doubt when they do badly. Booyse (2014) asserts that teachers feel scared and even inferior about assessment and that their learners would be demotivated in an assessment process. As a result, teachers might be caught up trying to protect themselves and their learners from negative emotions even when they hold strong views that active involvement in feedback process is valuable (Steinberg, 2013) and by doing that avoid assessments altogether.

Teachers may have beliefs that information about assessments reach them too late during the year, and therefore disconnected from actual classroom practices (Popham, 1999;

Weimer, 2012; Fischer and Frey 2012) and, thus tends to limit the value of the feedback. Harrison et al. (2013) are of the assumption that feedback from assessment is seen as a means of building learners' confidence rather than as a means to correct a knowledge or skill deficiency. However, Price, Handley and Millar (2011) refute this claim and propose that even though such feedback is often neglected, its' use goes beyond the immediate context and can be used to address future development. Fischer and Frey (2012) suggest that teachers should also think about how they use such feedback to inform their instruction and as such many teachers fail to both track feedback and use such information to alter upcoming lessons.

Teachers tend to have the belief that when learners can recall content from a topic, then they have understood that topic, but Leyendecker, Ottevanger and Akker (2008) assert that "assessments and evaluation that only requires students to reproduce facts and definitions will inevitabily train students for rote learning and memorisation of whatever the curriculum wishes to aim at" (p.57). In addition, Newstead (2004) confirms this when he says that teachers have mistaken belief that assessing learners' ability to reproduce information presented in class and textbooks and the learners correctly reproducing it is a sign students understood the material. Fischer and Frey (2012) recommend that teachers should develop formative test items geared to diagonise specific kinds of learning difficulties so that they discuss misconceptions still held after instruction by learners and recognise patterns of learning problems among learners. Chetcuti, Murphy and Grima (2006) also argue that if learners perceive assessments as

fixed, predetermined procedures of recollection and reproduction, then the whole purpose of education is defeated. So rather than use assessment feedback as a meaans for predetermined procedures of recollection and reproduction, teachers could use assessment feedback to improve their instruction. This would help avoid repetition of examination comments year after year as well as misunderstanding of Science content. Teachers need to be aware of examiners' feedback and try to make an effort to plough it back into the Teaching and learning process.

Sethusha (2012) posists that, traditionally, teachers perceive assessments an unpleasent burden resented by learners and also that assessments interupt the process of teaching and learning. Gulikers, Bastiaens, Kirschner and Kester (2008) state that "there is a gap between what teachers perceive they are doing and what they are actually doing in reality" (p. 14). This is reported in a study conducted at a vocational education training college in the Netherlands. The purpose was to find out perceptions of both teachers and learners on assessments that involved 17 teachers and 184 learners. They found that a gap existed between teachers' beliefs and actual assessment practices they performed in actual practice. Teachers were found to believe that they performed authentic assessment but in practice the assessment was found to be much less authentic. This study highlights a very important point for this study. The teachers in the study genuinely believed they were carrying out authentic assessment yet in practice were not. There is possiblity of believing one is doing a particular task yet in reality not achieving the goals of that task. This highlights a possibity of teachers in the Kavango East Educational region

presummbly believing they are using the examiners' report comments as they ought to used but in actual practice maybe using them in ways that may not be effective in the teaching and learning process and for avoiding repeation of comments.

2.7 Conclusion

This chapter presented the theoretical framework underpinning this study and helped in setting a clear picture of how assessment and feedback could be used during classroom instruction to improve the teaching and learning process. From the literature surveyed, it seems that the majority of instructors do not regard summative assessment's feedback as a valuable tool in improving their instruction.

It was clear from literature surveyed that feedback from either formative or summative assessment could be used to provide either formative feedback, that is, to be used as diagnostic tool in on going instructions. However, it was established from literature that even summative feedback which is seen as judgemental could still be used in the teaching and learning process. Comments from summative assessments in the form of examiners' reports could be used to adjust instruction and improve teaching and learning process.

Furthermore, evidence from literature shows that feedback could be ploughed back into the teaching and learning process in order to yield positive results in the teaching and learning process.

Finally, literature was surveyed for possible perceptions that teachers may hold on assessment. These were identified and described. For example, it was established in literature that undesirable teachers' perceptions have the potential to cripple the quality of educational outcomes specifically assessments. It was noted too that teachers generally have positive attitudes towards assessments but possess very low level of knowledge about educational assessments.

In the next chapter the research methodology is described.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology employed in this study. The reseracher describes the research design that was followed in order to gather data, the population, the sample and sampling techniques, research instruments, data collection procedure, data analysis and ethical considerations.

3.2 Research design

The study employed a mixed methods approach to generate both quantitative and qualitative data in two sequential phases. The design used in this research was explanatory-sequential mixed methods design in which the researcher is interested in following up the quantitative results with qualitative data (Creswell, 2014). The design was chosen for its usefulness. The researcher is interested in explaining, with some degree of depth, the findings from the first phase of the study using qualitative data collected from the second phase. The overall intent of this design is to have a situation where the qualitative data help explain in more detail, the initial quantitative results. Creswell (2014) suggests that a typical example might involve collecting survey data in

the first phase, analyse the data, and then follow this up with qualitative interviews to help explain the survey responses.

Thus, firstly, quantitative data was collected by means of a closed-ended questionnaire from all Biology teachers in the secondary schools of the Kavango East Educational region to provide information on the overall extent to which the Biology teachers use examiners' reports and the perceptions they hold about these reports. Thereafter, the statistical data was scored and used to purposefully select the eight Biology teachers from whom qualitative data was collected by means of semi-structured interviews. The interviews helped augment the statistical data and give in depth information about perceptions that teachers hold about examiners' reports. Creswell (2014) refers to this method as being the key idea as to why "qualitative data collection builds directly on the quantitative results" (p. 224).

Secondly, quantitative data from the first phase was analysed and used in order to formulate interview questions for the second phase. Teachers who represented extreme views, i.e. teachers who held views that were either: very positive, average and very negative, were purposively selected to participate in phase two (Creswell, 2014). In-depth interviews were, thus, conducted in the second phase in order to probe and provide in-depth information. To provide further credence to data collected in the first phase and second phase, the researcher conducted classroom observations. These were used as a means to check within a classroom environment if teachers applied comments from examiners' report. This also provided means for methodological triangulation.

3.3 Population

The population consisted of the 16 Biology teachers in the Kavango East Educational Region from the nine secondary schools. The Kavango East Region was chosen because of two significant reasons, namely: it houses the best performing school in Namibia, and also has the school which is regarded as the "torch bearer" of excellence in Namibia.

3.4 Sample and sampling techniques

The study was conducted in the Kavango East Educational Region in Namibia (see Figure 1).

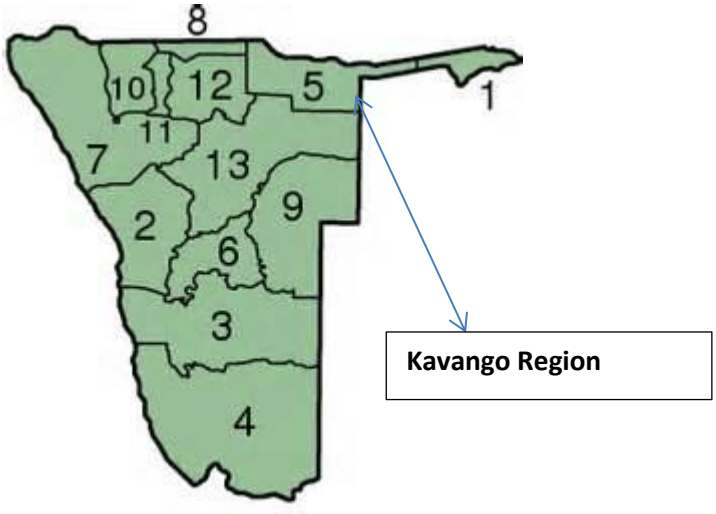

Figure 3: Regions of Namibia

The study was conducted in two phases, that is, phase 1 and phase 2. Phase 1 involved all 16 Biology teachers from all the nine secondary schools in Kavango East Educational region. Table 4 below shows the demographic information of all 16 biology teachers who participated in the study.

Table 2: Demographic information of the 16 teachers who participated in the study

Characteristics	Category	Number of Teachers
Gender	Male	12
	Female	4
Age	20-24 years	none
	25-29 years	5
	30-34 years	6
	35-39 years	4
	Over 40 years	1
Qualifications	BETD	6
	PGDE	2
	BEd	8
Teaching Experience	1-5 years	8
	6-10 years	4
	11-15 years	3
	16-20 years	none
	Over 20 years	1

The second part of the study involved seven biology teachers who were purposively sampled as they were information rich and, thus, the seven biology teachers took part in

order to discover, understand, and gain insight of the study site and the participants (Merriam, 2009). These were biology teachers who showed to have strong views in using the examiners' feedback as per the questionnaire administered to them. In addition, the following criteria were used in selecting these teachers:

- Biology Teachers who were willing to participate in the study.
- Teachers who taught Biology at grade 11 and 12 level at the time of data collection.
- Biology teachers with a minimum of three years working experience.
- Biology teachers who participated in the first phase of the study.
- Biology teachers who selected the "strongly agree" or just "agree" options of the questionnaire.

3.5 Research Instruments

The study used a survey questionnaire, an interview and observation in order to collect data.

3.5.1 Questionnaire

A survey was conducted in the first phase of the study. The initial questionnaire had 60 items which after some input had been received, reduced to 35 items and finally reduced

to 29 items. The questionnaire was designed with three scales that were used for collection of survey data and these were:

- Section A: Biographical data.
- Section B: the uses of examiners' reports.
- Section C: the perceptions of teachers about examiners' reports.
- Section D: use examiners' report during classroom instruction.

The scale used to check teachers' responses for research question one had 10 statements. This question sought to find the extent to which Biology teachers used examiners' reports. The statements were formulated as questions and respondents had the following four options from which to express their views: never; rarely; often and always. Research question two, which sought to understand Biology teachers' perceptions regarding examiners' feedback, had 13 statements. The third and final research question checked if teachers used examiners' feedback in their classes and had 6 statements. For the statements relating to these two research questions, respondents had four options from which to express their views which were: strongly disagree; disagree; agree and strongly agree. Two rating scales were used to cater for different research questions (see Appendix H). One scale used "never; rarely; often and always" while the other was "strongly disagree; disagree; agree and strongly agree".

The instrument was pilot-tested at a secondary school in the Kavango West Educational Region. The questionnaire was first evaluated for content validity by three peers who

completed their Masters degrees. The final questionnaire was also reviewed by two Biology educators in order to ensure its validity. The questionnaire was then refined and then administred to participants who took part in the first phase of the study in order to find out if biology teachers use the examiners' feedback during instructions.

3.5.2 Interview

Seven biology teachers with a high score from the questionnaire analysis were identified from the main sample in order to take part in the second phase of the study for interviews. A further filtering took place in order to select biology teachers who indicated that they were using examiners' feedback when preparing for instructions. An interview guide was developed in order to collect data for further in-depth information from the participants. To develop the semi-structured interview guide, the results obtained when analysing data gathered through the questionnaire were used. Creswell (2014) explains this clearly:

> It (sequential-explanatory mixed method research) involves a two-phase project in which the researcher collects quantitative data in the first phase, analyses the results, and then uses the results to plan or build onto the second, qualitative phase. The quantitative results typically inform the types of participants to be purposefully selected for the qualitative phase and the types of questions that will be asked

> of participants. The overall intent of this design is to have qualitative data help explain in more detail the initial quantitative results (p. 224).

Therefore, questions were designed with the aim of giving an in-depth understanding of data obtained in phase one. For example, if in the phase one, results indicated that 90% of the teachers do not use examiners' reports, a question for the interview was then formulated in phase two that would seek in-depth information on why this situation existed that way for the participants in phase one. The interview guide had 14 questions in all. Section A had five follow-up questions on the extent of use of feedback by teachers; Section B consisted of five follow-up questions on the perceptions of teachers towards assessments; and Section C had four follow-up questions on whether teachers use examiners' reports in their classes (see appendix H).

"Structured interviews use open response questions to obtain data on participants' meanings - how individuals conceive of their world and how they explain or make sense of important events in their lives" (McMillian & Schumacher, 2014, p. 381). Thus the open-ended, semi-structured interview questions were used to solicit data from the information rich individuals about their perceptions and about the extent to which they use examiners' reports. The interview guide questions were piloted at a school in Kavango West Educational Region. Within this process the interview guide was refined.

The study employed “one on one” type interview where the interviewer sat in private with the interviewee. Each interview lasted on average for 30 minutes. All interviews were audio recorded so that nothing was missed out, but the researcher was mindful of the fact that audio recording interviews might have made the participants nervous and not be their natural self. The researcher, thus, assured the teachers that the recordings were for the purpose of not missing anything out on any of the words in the interview and that the recording would be used solely for the purpose of study. These were first organised according to teacher codes and each digital interview file could be traced to a particular teacher that participated in the interview. Table 5 presents demographic data of biology teachers who participated in the interview.

Table 3: Demographic data of biology teachers who participated in the interviews

Teacher	Gender	Age	Qualification	Teaching Experience	School
Tengeni	Male	25-29	BEd	1-5	A
Likuwa	Female	30-34	PGDE	11-15	B
Humutenya	Male	30-34	BEd	1-5	C
Kashivi	Female	25-29	BETD	1-5	C
Kapango	Male	30-34	BEd	6-10	D
Kapapero	Male	30-34	BETD	6-10	E
Muronga	Male	30-34	BEd	6-10	F

3.5.3 Observation

Classroom observation guides were developed with the aim of rigorously classifying the data as either supporting or contradicting the teachers' initial claims about their uses of examiners' reports. Therefore, observations were conducted in order to collect data about whether teachers actually incorporated or tried to incorporate examiners' feedback into their instruction. The initial plan in this study was to design a single observation checklist per topic that would be used for all the teachers involved during observations. It was assumed the teachers would more or less be covering similar topics during the period. For instance, a checklist would have been designed for a lesson on the topic digestion which would be used for all the teachers involved in the study when they taught the topic. However, this became impossible to follow through as teachers covered different syllabus topics per week and since the idea was not to cause disruption to normal school activities, it could not be suggested for teachers to leave the topics they were covering in order to follow the researchers' plan, teaching same subject topic. As a consequence, a new idea was devised whereby the researcher made arrangements with the participating teachers to allow for their lessons to be video-recorded using inconspicuous video-recording equipment so that there would be minimal disruption to the classes (Wilson, 2009). Lessons were, therefore, video recorded to capture the teachers' instructions. These recordings were, then, checked against examiners' report comments for the topic taught to check if teachers were incorporating the feedback from the examiner report.

Hopkins (2008) highlights the importance of video-recording as allowing for observation of many facets of teaching quickly, and provides heuristic and accurate information for diagnosis. He adds that video-recording is a means of examining in detail a specific teaching episode. However, also states that video-recording lessons has the effect of disrupting the normal flow of the lesson and fails to capture out of focus events. The researcher addressed these issues by trying to put teachers and learners at ease and not to focus on the video-recording. However, it must be mentioned here that observation was used as an aditonal research instrument in gathering data. What was important was to record the teachers' lesson and in retrospect check the lesson presentation against the ER comments on that particular topic or subsection of the topic the teacher presented.

A quantitative observation checklist was designed by using a format adopted from Black's (2009) and Plaut's (2006) model for good instruction practice in order to evaluate if the teachers had refered to examiners' feedback in anyway by consulting examiners' report for common comments on that specific topic. For every topic, common comments from the examiners' report would be identified, listed and checked against the recorded lesson. The observation checklist was checked by subject advisors in Kavango East Educational region and piloted at a school in the Kavango West Educational Region.

From the seven teachers interviewed, the following four teachers were selected for classroom observations; (1) Kashivi, (2) Likuwa, (3) Kapango and (4) Muronga. The profile of the teachers is as presented in table 6

Table 4: Profile of biology teachers who participated in classroom observations

Teacher	Gender	Age	Qualification	Teaching Experience	School
Kashivi	Female	25-29	BETD	1-5	C
Likuwa	Female	30-34	PGDE	11-15	C
Kapango	Male	30-34	BEd	6-10	D
Muronga	Male	30-34	BEd	6-10	F

3.6 Data collection procedure

First, permission was sought from the Kavango Educational Director. After permisson was granted, the researcher's next task was to meet with the principals of prospective participating schools to introduce himself as well as schedule meetings with Biology teachers. It was mutually agreed in all the schools that the researcher could meet with the teachers during tea break.

The next task was to meet with the teachers at various identified schools in the Kavango East region. After a brief consultation in order to explain the purpose of the study and arrange how the questionnaire would be administered, the reaseacher personally distributed the questionaire to all the biology teachers in the identified schools. For ethical purposes, each questionaire had a letter of consent attached to it (see Appendix I) that teachers had to sign as proof of their voluntary participation in the study. The teachers completed filling out the questionnaire and consent forms a day after they were handed out to them in all the schools. The researcher then collected them during tea break of the following day.

The researcher again personally took time to explain the purpose of the interview to the Biology teachers who were selected for interviews. The researcher also discussed issues of when it would be convenient to conduct the interviews. The Biology teachers were again reminded that the interviews would be audio-recorded for the purpose of not missing any thing out and again their permission sought. The interview was meant to get an in-depth understanding and clarity about some issues that emerged out of the questionaire. Interviews lasted for about 30 minutes per participant. The participants were assured that the audio recorder would be used only for the purpose of the research.

Lastly, the researcher carried out the classroom observations. It was again emphasised what the purpose of carrying out classroom observations was. The four teachers selected for observation from the eight teachers that participated in the interview. A total of five

lessons were observed. Again, it was explained to them that the classes would be video-recorded and the purpose, which was mainly for research, was explained to them.

3.7 Data Analysis

Data analysis is a process that entails categorising, ordering, manipulating, summarising, accounting for, as well as explaining gathered data (Brink, 2007). The analysis of data in this study, therefore, followed two distinct phases; 1) quantitative phase which used descriptive numeric analysis whereby frequencies of teachers' responses were scored, ranked using the scale weighting and frequency tables generated (described in detail under 3.7.1) and 2) the qualitative phase used thematic text analysis whereby main incidents or occurrence of responses from teachers were noted and grouped to establish patterns, themes and categories (Creswell, 2009; Van Der Merwe, 2011).

The analysis phases were based on the type of tools used and the data obtained but the researcher also included an additional observation to help provide even further credence to data from the two phases. Data were analysed separately so that data from the quantitative phase could be used to inform and design the qualitative phase. As Creswell (2014) cautions "A common misstep at this point by beginner researchers is to merge the two databases and that "the intent of the design is to have the qualitative data help to provide more depth, more insight into quantitative results" (p. 225).

3.7.1 Survey data-questionnaire

After the questionnaire was administered to biology teachers at all the secondary schools, the data was organised and analysed and frequencies of responses regarding teachers' use of examiners' reports, their perceptions, and how they use examiners' reports was established. The final score of statements per teacher was determined by calculating the individual score per statement on Likert scale ratings. For example, one of the scale ratings on the questionnaire was: (1) strongly Disagree; (2) Disagree; (3) Agree and (4) Strongly Agree. So if on the list of the questionnaire statements under this scale, a teacher indicated "Strongly agree" then they got a score of four points, a score of three points if they "Agreed" , a score of two points if they "Disagreed" and only one point if they "strongly Disagreed". At the end, every teacher had a score depending on how they answered questionnaire questions.

However, as (Creswell & Clark, 2011; Creswell, 2014) caution, the challenge of this design at this stage is to identify what results to follow up on in the interview phase. They advise to follow up on those items that directly answer the research questions. The researcher therefore followed up on those items that he felt adequently answered the research questions.

3.7.2 Interview

Thereafter, the digital interview files were transcribed verbatim into printable word processing files for analysis. The printed transcribed files were read through several times recording initial thoughts by writing memos in margins of the text to develop a general understanding of teachers' responses (Creswell & Clark 2011). After reading through the transcripts several times, the data was then coded (Welman, et al. (2005) defines coding as "a process of analysing and making sense of the information that has been generated" (p. 214). The coding label came from the exact words of the participants.

These transcribed and coded data were then analysed using the key incident approach under each research question. This meant that, from the responses, frequent coded responses from the teachers were identified, noted and summarised per question within each research question for analysis. Responses emerged from processing the data and were gradually grouped to provide a rich categories and themes.

3.7.3 Classroom Observations

Observation checklists were prepared containing comments from examiners' reports. The purpose was to find out if biology teachers were using examiners' feedback or not as found in past examiners' reports about the specific topic under discussion. The

researcher, for example, after video-recording a topic a teacher taught, say, Cells, would then use the specific observation checklist that was developed by considering examiners' comments on cells. The researcher would go through the checklist to see if the teacher had referred to any of the examiners' comment during instructions. In order to achieve trustworthiness of the data, the researcher used peers to check through the same recording for occurrences using the same checklist and then, had a discussion with the same peers to agree on the outcomes. The final scores of all the responses of teachers were then captured on score sheets. The data captured would indicate how many times per given topic a teacher had attended to examiners' comments about specific topics under discussion.

3.8 Triangulation of data.

This study employed triangulation of methods whereby the use of different instruments was employed. Triangulation has the advantage of counterbalancing the threats inherent to one method.

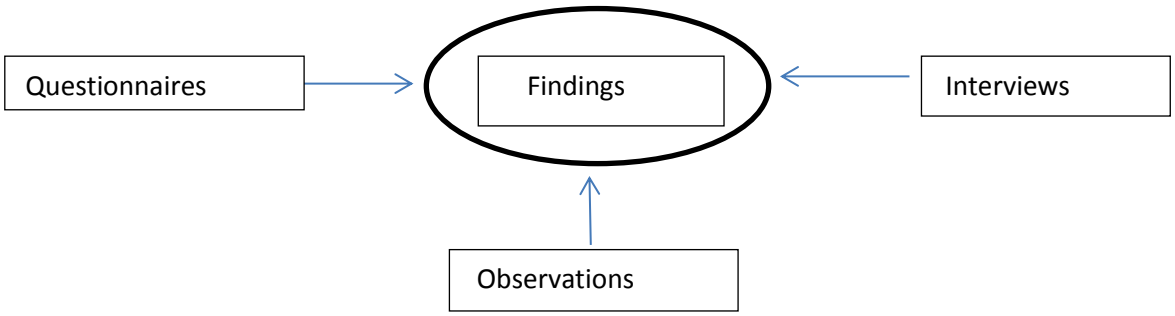

Figure 4: Data Triangulation Process

This study employed the use of a questionnaire, interviews and classroom observations. The questionaire provided statistical data on the three research questions while the interview provided in-depth follow up information on the Second phase. Lastly, the questionnaire provided data on whether or not teachers use examiners' feedback in their classroom instruction. So as a result this formed the basis for data triangulation in this study. Results from the three data sources were meant to be complementary and similar so that any differences would be indicative of something not being right.

3.9 Ethical Considerations

The researcher adhered to the following ethical considerations:

- The researcher first sought permission from the Director of Kavango East Educational Region, principals and biology teachers to conduct this research in the targeted schools (See appendix B).
- The researcher also fully revealed his identity and background as a researcher to the participants in all phases of the research process as well as
- The researcher also explained the purpose of the research along with its procedures in detail.

- After explaining, informed consent was obtained from all the participants. Therefore all the participants took part in this study on a voluntary basis and they were informed of their right to withdraw their involvement at any time of the research process.
- The researchers also dealt with the issue of confidentiality and highlighted to the participants that their identity would be kept anonymous and that any data could only be exposed with their consent (see Appendix G).

Finally, the researcher made a pledge to share research findings with participants upon completion of the study and also pledged to strive to be objective, honest and to report on the process with accuracy and integrity.

3.10 Summary

This chapter focused on research methodology used to collect data from participants. The chapter describes and discusses the design, the population, sample and sampling procedure, research instruments, data collection procedures, data analysis and ethical considerations. The chapter discusses how the survey carried out in Phase one enabled a bigger population to be included in the study, while Phase two made it possible for the researcher to access much deeper and more nuanced information that explained further results of phase one. The next chapter presents results of the study.

CHAPTER 4

PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4. 1 Introduction

In this chapter, the researcher presents, interprets and discusses results of the raw data that was gathered for the study. As data collection was done using different phases, the results are thus presented per phases as well as per the main research questions as listed below:

- **Research Question One:** To what extent do Biology teachers use examiners' reports?
- **Research Question Two:** What are the Biology teachers' perceptions of examiners' feedback?
- **Research Question Three:** Do Biology teachers use examiners' feedback in their classes?

The next section presents the results of the study, starting with the first research question as indicated in the introduction.

4.2 Research Question One: To what extent do Biology teachers use examiners' reports?

In order to answer the above question, the researcher presents the results by data sources. Firstly, results of the survey are presented as per questionnaire in section 4.2.1 below.

4.2.1 Results of the survey- questionnaire

A total of 16 copies of questionnaires (see Appendix H) were distributed to the 16 Biology teachers in the Kavango East Educational Region. All the 16 copies of the questionnaire were completed and collected for analysis by the researcher. The questionnaire included ten statements that were answered according to a Likert rating scale, that is, Never, Rarely, Often and Always that used the following ranking: Never (one point indicating no use at all); Rarely (two points indicating least used); Often (three points indicating hardly used) and Always (four points indicating used most).

As shown in Table 2, and based on the pre-determined themes set out in the questionnaire, the extent on the uses of the examiners' report by teachers became apparent.

Table 5: Frequency of use of examiners' feedback by biology teachers (N= 16)

No	Statements	Never (1)	Rarely (2)	Often (3)	Always (4)
1	Are examiners' reports delivered at your school every year?	0	2	2	12
2	Are you handed a copy of ER covering your subject?	0	2	2	12
3	Are examiners' reports handed to you in good time to utilize them in the teaching – learning process?	0	4	8	4
4	How often do you read through the examiners' report?	0	4	10	2
5	Are comments obtained from examiners' reports useful in your lessons?	0	1	8	7
6	Do you find comments obtained from examiners' reports easy to apply in your lessons?	0	1	8	7
7	Do your assessment strategies include ideas from examiners' reports?	1	3	6	6
8	Are comments in examiners' reports discussed in departmental meetings?	7	4	4	1
9	Does the Head of Department promote use of examiners' reports in departmental meetings?	3	4	4	5
10	Do you get any kind of assistance on how to use the examiners' report?	6	5	5	0

From the statements given to teachers in Table 1, only four statements (statement 4-7) are relevant to the main research question one above. The other questions were set up to check logic of information gathered. Table 1 indicates that biology teachers read often through the comments of the examiner's report (12 out of 16 biology teachers). Results also reveal that Biology teachers find the examiners' comments useful (15 out 16 biology teachers) and 15 out 16 biology teachers indicated that they were using the feedback during instructions. Twelve of the 16 biology teachers also indicated that they include examiners' feedback in their assessment strategies. Therefore, the majority of the teachers of the selected sample agreed or strongly agreed to have been reading through the report, using ERs for classroom assessment and that they found it easy and useful for instruction purposes. Out of the nine schools selected for the sample, only teachers from six school (a, b, c, d, e and f) provided information that they considered the ERs for their instructions.

4.2.2 Results from interviews

The data gathered from this process was then used to select seven teachers to participate in the interview and subsequently in classroom observations. The seven teachers were purposively selected because they indicated either 'agree' or 'strongly agree' in their responses to all individual questions of the questionnaires and, thus, indicating high usage of the examiners' reports. To calculate this, a weight of (1) was assigned to

"Never", (2) was assigned to "Rarely", (3) was assigned to "Often" and (4) was assigned to "Always". Therefore, if a teacher selected the option "Rarely", the weight value 3 was added to his/her score card. At the end, the weighted figures of each teacher for statement (4-7) were entered on the score card which was then tallied to give a total score to each teacher. So any teacher who scored 8 and below was considered as low user of examiners' reports while any teacher that scored 9 and above was considered as using examiners' reports much and therefore included in the interview. Amongst the biology teachers selected for the interview and subsequent observations, only Ms Kashivi and Mr Likuwa were from school C, and the rest of the five teachers Mr Tengeni, Ms Humutenya, Mr Kapango, Mr Muronga, and Mr Kapapero were from different schools (School A, School C, School D, School E and School F) in Kavango East Educational Region.

The teachers were interviewed on a one-to-one basis and were given pseudo names in order to protect their identities. The following interview guide with open-ended questions was used for this purpose:

1. Do you have copies of all examiners' reports?
2. If examiners' reports are delivered late, what do you do? Explain?
3. If DNEA stopped producing examiners' reports, how would this affect your teaching?
4. Do you think you need assistance in order to use the examiners' reports?

In line with the information provided in the questionnaire, the teachers who were interviewed confirmed that the majority of schools do receive examiners' reports, directly or indirectly through the principals or the heads of departments. When biology teachers where asked if they had copies of the ERs in their files, they indicated that they had. Some of the teachers had this to say:

> *They can only be up to four. Because I am now in my fifth year teaching, so I think I received every year except in the first year I started.* [Mr Tengeni, Interview, File 1, SCHOOL A]

Another Biology teacher said:

> *This is my fifth year and all the five years we have received and even have the previous ones.*
> [Ms Humutenya, Interview, File 1, SCHOOL C]

Yet another said:

> *I have four copies since I started in 2011.*
> [Ms Kashivi, Interview, File 1, SCHOOL C]

However, some teachers gave a different version indicating that they do not receive all the reports, and had this to say:

> *Honestly speaking for grade 10 we are given every year. The only examiners' reports we have a problem with is grade 12. With the grade 12, this year is the first time I am getting it.*
>
> [Mr Likuwa, Interview, File 1, SCHOOL C]

The overall impression from teachers' responses is that teachers keep copies of examiners' reports for most years. However, Mr LiKuwa indicated that he was experiencing a problem assessing Grade 12 examiners' reports but no problem with the Grade 10.

The biology teachers were also asked to explain what they did if the examiners' reports were delivered late. The following were some of their responses:

> *I still use the previous ones because they carry the same message anyway. Because, if you look at that examiners' report, it just gives you a hint of how learners were able to tackle certain questions, and why learners failed a particular question. So as*

soon as I get it, I will just refer to one or two areas because already I would have used the other one. They are basically almost the same.

[Ms Humutenya, Interview File 1, School C]

Another said the following:

Like this term they were delivered to me around June, so that is really late. But nevertheless we are trying our best to go through with the learners looking for mistakes that previous learners made in the past paper. Yeah! We are getting there but in Biology it is a bit challenging because we have three papers so time is not on our side to deal with each and every paper. For multiple choice questions, it is a little bit easy though there are some individual comments on each question. So that one I don't read it much.

[Mr Likuwa, Interview, File 1, School B]

Yet another had this to say:

Though we don't receive the current one in time, there is a need to use the old ones (examiners reports) because comments of

previous report may be repeated on the same questions.

[Mr Kapango, Interview, File 1, School D]

Another biology teacher responded as:

> *When we get them a bit late, it really gives us a tough time just to go through each of the points on the examiners' report and teach to learners, so you find that we have a lot of work to do when we teach our syllabus and to accommodate all the comments it does not allow us.*
>
> [Mr Kapapero, Interview, File 1, School F]

This question brought out two very important points about what teachers do if examiners' reports are delivered late; some teachers indicated they use previous ERs and it is not too much of a problem while other teachers indicated it was a problem and they would need to go through quickly with learners.

On another crucial question posed to biology teachers to explain how their teaching would be affected if DNEA stopped producing examiners' reports. The following were the responses from the teachers:

> *That would affect teaching negatively because now the teachers are going to lack in certain areas; for example,*

beginner teachers may not know the type of answering styles, question styles.

[Mr Tengeni, Interview, File 1, School A]

Another Biology teacher stated:

Now there it is "yes" and "no". Yes because if they come out with new questions that they have not asked previously. But the no part is if the questions are to be repeated the way I have observed then it will not affect since we use the previous papers that we have so far.

[Ms Kashivi, Interview, File 1, School C]

And yet another teacher said:

I think it would affect my teaching because the examiners' report helps us on how to approach some of the questions on how learners should answer specific examination questions. Without these examiners' reports, learners might not know how to answer questions.

[Mr Kapapero, Interview, File 1, School F]

And:

> *I think in a way it will because what I have realized is that sometimes the content we teach our learners at school is different from the marking that is done at the end of the year because that is why you find the marking system is completely different from the one at the school to the one at the national level.*
>
> [Mr Muronga, Interview, File 1, School E]

Most teachers were in general agreement that stopping production of ERs would affect their teaching. However, how their teaching would be affected drew very interesting points. For example, Mr Tengeni felt beginner teachers would have problems in getting to know the answering styles, question styles etc. Ms Kashivi felt it would affect things if they brought new questions but if they repeated them as they do usually, then there would be no problem. Mr Kaperero felt it would affect things because learners would not know how to answer examination questions. Lastly, Mr Muronga, felt it would affect teaching because how content is taught in schools is different from how marking is done at national level.

Finally under this section, teachers were asked if they needed help in using examiners' reports. Two different responses were given, some showing that teachers did not need

help while others did. Teachers who stated that they did not need help said the following:

> *Personally I am fine, whenever I read an examiners' report then I get clear information on what went wrong, and what should be done. So there is no extra help needed. If I go through the examiners' report then I know exactly what to do.*
>
> [Mr Tengeni, Interview File 1, School A]

Another Biology teacher said:

> *I don't think we need help there because it is user friendly. It is very straight forward and it is just like a memorandum. Only that they give comments on individual questions.*
>
> [Mr Likuwa, Interview File 1, School B]

On the same question of whether or not teachers needed help to interpret feedback from examiners' reports, some of teachers said the following:

> *Yes there is a need for doing that because new teachers may not have an idea of how to use or carry out content of the*

> *subjects taught and how learners would be able to answer questions. So it would be good if we can be trained.*
>
> [Mr Kapango, Interview File 1, School D]

Another said:

> *… I think it would be needed more especially with teachers that are not going for marking as I said. Yeah! Because some of us who are fortunate to go for marking because even before we start are given a pre – training session and you become aware of what is going on. Then at the end of the day, the same markers are the same people who write that report.*
>
> [Mr Muronga, Interview File 1, School E]

This question brought out two points, some teachers pointing out they need help and others saying they did not need help. Mr Tengeni categorically stated he was fine while Mr Likuwa stated the reports were user friendly. On the other hand, Mr Kapango stated there was need to seek help as some teachers would not know what to do. Mr Muronga felt assistance was needed especially for teachers not going for national examination marking.

Most biology teachers regardless of the school they were from, pointed out that they regarded examiners' reports to be very important. They also pointed out that usually the ERs were delivered to schools and most of them indicated to have copies of the ER in

their personal files. Some of them even indicated to have used previous ERs even when the delivery was late. For example, Mr Kapapero said: "*ERs help with how to approach questions on how learners should answer specific examination questions"* while Ms Kashivi said: "*If they come out with new questions and not repeat questions as they do then it will be a problem"* and Mr Tengeni also said that "t*eachers may not know the answering styles".* Dirksen (2011, p. 28) asserts that "summative evaluations can be used formatively by taking the results and using that information to develop instruction designed to improve student outcomes, either through reteaching information on which students performed poorly or by changing how the information will be delievered in the future". Most of the biology teachers did not seem to use the ER for improving instruction either in reteaching or emphasising issues in the ERs feedback but rather for learners to improve on their ways of providing answers to examination questions.

4.2.2 Discussion

Information gathered from the questionnaire and interview clearly demonstrates a low level of knowledge about the use of ERs. This is in line with what Sethusha (2012) posited, that teachers find assessment or assessment feedback to be unpleasent and see it as an interruption of the process of learning. Tang and Harrison (2011) too state, that, the way teachers understand the role of feedback impact significantly on their feedback approaches, amount of detail of their feedback and the amount of time and effort expended on feedback provision. In other words, if the purpose of something is less

understood, the feedback will be misused. According to Hattie and Timperley (2007) feedback is most effective when it addresses faulty interpretations. They further state that there must be a learning context to which feedback must be addressed. In other words, using feedback only for examination drilling may render feedback ineffective.

4.3 Research Question Two: What are the Biology teachers' perceptions of examiners' feedback?

This section presents and discusses biology teachers' perceptions about examiners' feedback on summative examination. In order to collect information that enabled the researcher to provide answers to the above question the researcher made use of a survey questionnaire (Section C) and interviews (see appendix J).

4.3.1 Results from the Survey

The teachers were asked to indicate their levels of perceptions with each of the given statements by using a four-point Likert scale i.e. strongly disagree, disagree, agree and strongly agree. Table 3 presents teachers' perceptions about the examiners' feedback as reflected in the 13 statements of Section C of the questionnaire

Table 6: Frequency of teachers' perceptions about examiners' reports (N= 16)

No	Statement	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
1	Using comments from ERs in Biology promotes learning	0	0	8	8
2	Comments from ERs can be used as a diagnostic tool for teaching.	0	0	13	3
3	Comments from ERs are not aligned with syllabus content	3	12	1	0
4	Comments from ERs help teachers alter instruction to improve learning.	0	0	8	8
5	Using ER comments during instruction helps learners to avoid repeating mistakes made by learners from previous years.	0	0	4	12
6	Implementing comments contained in ERs is a time consuming process.	5	5	4	2
7	Trying to implement feedback from ERs creates more work for teachers	5	5	3	3
8	ERs come too late in the teaching – learning process hence not useful.	3	4	5	4
9	ERs are too bulky.	8	5	2	1
10	It is difficult to translate comments contained in ERs into instruction.	7	7	2	0
11	Using comments contained in ERs is teaching for exams.	1	4	7	4
12	Comments contained in ERs are not clear.	4	9	3	0
13	Teacher training equips teachers how to use comments from ERs.	7	5	4	0

Table 3 revealed that the majority of biology teachers agreed to using examiners' feedback (eight teachers out of 16 just agreed while eight teachers strongly agreed) to have used the ERs feedback during instructions as well as to have used the ERs in diagnosing learners' learning difficulties. Table 3 also shows that the teachers agreed

that examiners' feedback were aligned with the content of the biology syllabus (13 of 16 teachers just agreed while three teachers strongly agreed with the statement). Furthermore, the teachers agreed with the statement that examiners' comments help teachers alter instruction in the quest for improving learning (eight of 16 teachers agreed while 8 teachers strongly agreed to the statement) as well as that ER feedback can also assist learners to avoid mistakes made by previous learners (12 teachers strongly agreed to this statement).

However, it was difficult to come to any meaningful conclusion about the teachers' perceptions on some given statements. For example, the frequency counts were almost evenly spread on some statements such as: "implementing the examiners' feedback as being time consuming" (statement 6); "trying to implement feedback from examiners' reports creates more work for teachers" (statement 7); and lastly, that "examiners' reports come too late in the teaching – learning process hence not useful in improving teaching and learning process in schools" (statement 8). If one considered combining "Strongly agree" and "Agree" as one option and "Strongly disagree" and "Disagree" as the other option, one could come up with the following results. Nine of 16 teachers disagreed while six of 16 teachers agreed with statement 6, that ER feedback is not seen as to be time-consuming by some teachers. Ten of 16 teachers disagreed while six of 16 teachers agreed with statement 7, thus, teachers think that ERs feedback does not create more work for teachers. Further, seven of 16 teachers disagreed while nine of 16

teachers agreed with statement 8 that ER feedback is useful even when it arrives late at the schools.

Also, 13 of 16 teachers thought the ER feedback is not too bulky and 14 of 16 teachers thought that ER feedback was not seen as difficult to translate into instruction. Furthermore, some teachers were of the assumption that teaching by using examiners' feedback is seen as teaching for examinations since most of the ERs were aligned with the questions posted in the different examination papers. On statement 12, 13 of the 16 teachers disagreed that ER comments are not clear while 4 agreed that they were not clear. Finally, on statement 13, 12 of 16 teachers disagreed that teacher training equips teachers on how to use ERs while 4 of the 16 teachers agreed it does. The next section focuses on the results of the interview.

4.3.2 Results from interviews

In order to have a deeper understanding of the teachers' perceptions from the questionnaire, interviews were conducted on a one-to-one basis. The seven teachers who were purposively selected for phase two were interviewed in order to provide in-depth information which would further explain the results obtained from the questionnaire to help in answering research question two. The following open-ended questions were asked:

- If DNEA stopped producing ERs, what do you think will happen? Explain?

- Do you think that examiners' feedback is important to biology teachers?
- Do you think that the examiners' feedback is useful to teachers only or to learners too? Explain.
- Do you think that teaching should be aligned to examiners' feedback? Explain
- Do you think that checking through the feedback in ER increases your work load?

When teachers were asked in the interview what they thought could happen if examiners' feedback was stopped from being published, the following were some of the responses:

> *There would be a change and the change would be a negative change. So ERs should be distributed every year. We would not do well because there are some marking and answering criteria that markers use so ERs give an idea of how learners were supposed to answer in order to get the marks in questions and certain areas in the syllabus. So they need to expose those criteria to the learners now so that learners know that if you write like this then it is marked wrong because of "A" or "B".*
>
> [Mr Tengeni, Interview File 2, School A]

It seems that Mr Tengeni uses the examiners' feedback to help find marking and answering criteria to some examination questions. He also gets examination criteria on how to distribute marks for certain examination questions as well as to inform learners about how to provide appropriate answers given to some examination questions. Mr Tengeni also thinks that learners could benefit from the examiners' feedback as they get to know how correct answers should be written.

Ms Kashivi said:

> *Definitely, I stated earlier that the ER is like to update the teacher, and so if you are not updated then you will use old methods. Because there are some questions that are asked by the examiners that are not in the syllabus. What I am trying to say here is the application part now. Because normally what we do in the class is theory. But examiners ask on practical things.* [Interview File 2, School C]

Ms Kashivi consults examiners' feedback to explore the type of questions asked during examinations, in particular, the application type of questions. Thus, Ms Kashivi tends to use of examiners' feedback in order to acquaint herself with type of questions that are asked in examination.

Mr Kapapero also said that he gave copies of examiners' reports to his learners to use for revision but also to learn how to approach answering questions. It would appear from the response given by Mr Kapapero that, teaching without knowing what types of questions are being asked in summative examinations would be a challenge to both teachers and learners. Mr Kapapero said:

> *We make copies and distribute those copies to learners to also read just for them to revise how to approach some of these examination questions, then it really helps learners a lot. You find that the way how they mark at national, they consider how questions are supposed to tackled or answered then if you just teach the syllabus without knowing how that question is supposed to be answered then it becomes a problem because most of the learners being taught by teachers that don't go for marking then it is in the area where most learners are failing.*
>
> [Interview File 2, School F]

Mr Kapapero seems to allude to the fact that he makes copies of ERs so that learners know how to approach questions. He also says just teaching according to the syllabus would be a problem as learners will not be able to answer questions appropriately.

When teachers were asked if examiners' feedback was important to Biology teachers, Ms Hamutenya gave the following response:

> *ERs help the teacher to prepare learners for examinations because once the learners go to the examination room, they are confident because they know what is expected from them and they know what the examiners expect of them to do.*

Ms Hamtenya also says that ERs help teachers prepare learners for examinations and also help them go into the examination room confident. She further said that it was:

> *Extremely important!! Because it gives a background on how examination questions must be answered on every question and every area.* [Interview File 2, School C]

In addition to Ms Hamutenya, Mr Kapapero said:

> *Yeah! It helps because it goes into detail on how questions must be answered during examinations. Then the learner is supposed to be straight to the point, not to write too many things. What examiners need is just the points.*

Mr Kapapero believed ERs are helpful because they go into detail on how examination questions must be answered. In order to probe further on the preceding question, teachers were asked whether examiners' reports were useful for them only or for their learners too. Ms Hamutenya had this to say: "*For both, me and the learners to avoid mistakes. For me, because I am the one preparing the learners".* While Mr Likuwa said: "*Both of us. For the teacher it is important as they give you a direction as this is the way to give information to learners and then for learners it is important as it helps them when it is time for examinations, that this is how you produce this content".*

Mr Tengeni also said:

> *It is useful for all stake holders that means for both learners and teachers. Because what the teacher gives as wrong supporting information in the notes is what the learners also write in their examination as answers and this may be marked wrong because these are just statements but not the exact answer the question may want.*
>
> [Interview File 2, School A]

Mr Tengeni believed the ERs were important for all stake holders. He also believed that if teachers gave wrong information to learners, this could reflect in the answers they gave in examinations and maybe marked wrong.

Mr Kapango said:

> *For both of us, but it is more for the learners. With the learners it is more important because they are the ones to take up the examination and so must know the right things that are expected from them.*
>
> [Interview File 2, School D]

Finally Mr Kapapero said:

> *…Even though you can give more content to them but you have to stick to what can be assessed in the examination. Like normally if you look at past ERs, you can tell which areas examiners mostly concentrate where they ask questions every year. You find some of the topics they don't really ask questions on those topics. It helps a lot the teacher to know which areas they normally concentrate when they set up questions for examinations.* [Interview File 2, School F]

Mr Kapapero states that ERs are important to teachers (line 5 in the excerpt). He however also makes the point that teachers must stick to what is likely to be assessed in the examination by looking at past ERs which help give an indication of what is likely

to be in the examination. He further states ERs help teachers concentrate on areas on which examination questions are set. Finally, seven teachers were asked if using examiners' reports gave them too much work. Mr Tengeni said that "*Not exactly because for somebody who really wants to achieve the targeted grades, performance, this must be done"*. Ms Hamutenya said " *No! It is a part of my work. It is a part of my job. It is like when you are preparing yourself for any lesson"*.

And Mr Kapango said:

> *Not really, not really because during the preparations, or maybe the time the ER comes at least you go through once and then from there the time for preparing for examinations at least you can go through again.*
>
> [Interview File 2, School D]

While Mr Muronga said:

> *I think it reduces. Yes using ERs. Because you don't go around and run for information again because it is provided so it becomes easier.* [Interview File 2, School E]

The majority of the teachers' answers to questionnaire statements "6", "7" and "8" were difficult to make conclusions on as earlier alluded to because the scores were more or less spread evenly but however, the interview gave clarity. So when the teachers were

asked the same question, the majority of the teachers disagreed that using examiners' report was time consuming; and also disagreed that implementing examiners' reports gave them more work hence clarifying the not so clear responses to questionnaire statements (6, 7 and 8).

Most of the responses to statements on their perceptions revealed positive perceptions towards using the report for getting correct answers to questions posed in the examination papers rather than using the feedback to improve on their instructions. They kept on shifting the responsibility to learers but avoiding to talk about their responsibilities in instructing them. Even the biology teachers who indicated that the ER feedback was meant for both teachers and learners, their focus was more on learners than on themselves. For example, Mr Kapango said that "*they are the ones to take up the **examination** and so must know the right things that are expected from them".* Only one of the biology teachers said that the *"ER feedback was also meant for teachers as they "give you a direction as this is the way to give information to learners".*

4.3.3 Discussion of results

It is clear from results of both the questionnaire and interview that teachers have a positive perception towards examiner's reports on all the aspects asked about in both

instruments. Pickens (2005) defines perception as a process by which a person interprets a situation based on prior experiences. So the teachers in the Kavango East Educational Region have a positive perception towards examiners' reports and this is in line with the study conducted by Alkahrusi, Aldhafri, Alnabhani and Alkalbani (2012) who observed that, although most teachers claim to hold a favourable attitude towards assessments, most of them demonstrate a low level of knowledge about educational assessments. In their study, when teachers were asked about their perceptions about assessment and assessment feedback, they demonstarted very positive attitude of it based on what they thought was the benefit of assessment. But however, further investigation showed their favourable attitude was based on what they wrongly assumed was the importance of assessments.

Biology teachers seem to make a direct connection between the ERs and improving learners' ways of providing answers to examination questions. This could be seen as having a positive attitude towards the use of the ER reports. Local experience however indicates the contrary. In a study by Van Der Merwe (2011) who, on behalf of the MoE tried to understand the experiences of teachers and how the resulting summative reports were utilised by teachers in the 13 regions of Namibia, it was revealed that teachers were having difficulty implementing examiners' comments because of pressures to do instruction to complete the sylabus.

Further, literature shows that teachers perceive assessments activites as an unpleasent burden they resent and also that it interrupts the process of teaching and learning (Sethusha, 2012). Teachers may however view the use of examiners' reports, as not being a time consuming exercise because of what O-Saki and Ndibili (2003) posit in their study that teachers focus mostly on success in examinatons at the expense of general knowledge and understanding. The teachers in this study might be seeing examiners' reports as tool that might help them in attaining better learners peerformance because of the constant reference to using ERs to improve learners ways of providing correct answers to examination questions.

4.4 Research Question Three: Do Biology teachers use examiners' report in their lessons?

This section presents and discusses results of how biology teachers' use examiners feedback during their classroom instruction. In order to collect information that enabled the researcher to provide answers to the above question the researcher made use of a survey questionnaire (Section D) interview questions (Appendix J) and classroom observations (Appendix K).

4.4.1 Results from questionnaire

Teachers were asked to indicate their uses of the ER through their levels of agreement on each of the given statements by using a four-point Likert scale, that is, Strongly Disagree, Disagree, Agree to Strongly Agree (see Appendix H, Section D).

Table 7: Teachers' use of examiners' report (N= 16)

No.	Statement	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
1	Teachers should have copies of both current and previous year's examiners' reports.	1	0	4	11
2	Comments from examiners' reports should be used for teaching purposes.	0	2	8	6
3	Teachers should just teach according to the syllabus.	1	1	8	6
4	For every topic, teachers must look through comments on that topic from examiners' reports to include into their lesson.	0	0	7	9
5	Teachers should emphasize errors commonly found in final examinations to their learners.	0	0	3	13
6	Teachers should encourage learners to look at examiners' reports available on the internet and public libraries.	0	0	6	10

Table 4 revealed that 11 out of 16 teachers strongly agree and four of 16 just agreed that biology teachers should have copies of both current and previous year's examiners'

reports and that such feedback should be used for teaching purposes while two biology teachers disagreed to this statement and only one biology teacher disagreed to the statement. Eight of 16 teachers agreed while six teachers strongly agreed to use the ER for instruction purposes. The same number of teachers also agreed and strongly agreed for the ER to be used alongside the Biology syllabus while only two of the teachers disagreed with the statement. Nine of the 16 teachers strongly agreed to the use of the ER for every topic to be taught and that biology teachers should look through comments provided in ER in order to include feedback into their lesson while seven biology teachers agreed to the statement and none of the biology teachers disagreed with this statement.

Furthermore, thirteen of 16 teachers strongly agreed and three of the 16 teachers agreed that teachers should emphasize errors commonly found in final examinations during instructions and none disagreed with the statement. Lastly, ten of 16 biology teachers strongly agreed and six of 16 teachers agreed that teachers should encourage learners to look at examiners' reports made available to them and none disagreed with this statement. Overall, the majority of the biology teachers from the selected sample show positive usage of the ER in the teaching and learning process. The next section reports results of the interviews.

4.4.2 Results from interviews

In order to have a deeper understanding of whether or not these Biology teachers' used examiners' reports during instructions, one-to-one interviews were conducted. Seven biology teachers were selected from the sample that participated in the study. The interview guide with the following four open-ended questions was used for this purpose:

- How do you use examiners' reports in your lessons?
- Comments in examiners' reports is about learners' failure to understand biology concepts. How do you deal with this in your class?
- Do you read examiners' report comments on a particular topic before you teach? Why or Why not?
- Do you take into account examiners' comments when marking learners' activities or homework?

When the seven teachers were asked to explain how they use examiners' reports in their classes, some teachers stated they used the ERs in order to prepare their learners for examinations or even to discuss how best to provide answers to examination questions and still others suggested they used ERs to set up term examination papers. This is suggested in the following the responses the teachers gave:

Mostly when preparing learners for examinations but also in class here and there while I teach a topic.

[Ms Hamutenya, Interview File 3, School C]

Another teacher Ms Kashivi said:

I take the examination paper and I go through the questions with learners. So when I read the questions then I go back to the ER to see how we are supposed to guide learners how to answer that specific question. [Interview File 3, School C]

Yet another teacher Mr Kapango stated:

I give my learners a test, from the previous examination questions and then from there I will see how they answered those questions because I just want to find out how they do it. Then from there, I will mark them, after marking I will use the ERs to check what is expected of them after answering those questions.

[Interview File 3, School D]

Biology teachers seem to use ERs for the following reasons: preparing learners for examinations; for revision purposes by training learners on how to provide correct answers to examination questions; and as well as using the provided answers to examination questions as a type of an answer key for their class tests.

Another question was posed in order to have an understanding about what teachers do in order to assist their learners when they fail to understand science concepts. Ms Kashivi said:

> *I try to explain the content using different examples. Just to give them that understanding not to memorize what is written in the book. So I try to give them different situation so that they are able to use different words but giving the same answer.*
>
> [Interview File 3, School C]

The next question of the interview asked teachers whether they read examiners' feedback before planning for instruction in order to be aware of the learners' difficulties concerning that specific topic. Mr Tengeni said that he does not check regularly through the ERs and he stated: "*I usually try to do that but not all the time. Sometimes there is too much work to do so it is difficult".* [Interview File 3, School A].

However, some teachers indicated they look through examiners' feedback when they are preparing lessons on challenging topics and Ms Kashivi said: " *Not all the topics but I choose those that seem challenging for me to deliver. So once I come to a difficult topic then I go back to the ER".* [Interview File 3, School C].

The next question of the interview asked teachers if they take into account examiners' comments when marking learners' activities, Mr Tengeni responded as follows; *Marking is something else now, Yeah! We do but not always, not always.* [Interview File 3, School A]

Ms Kashivi vaguely responded as follows:

> *If we are not to use that ER and then we will just let them write in any way they think is right and then mark then we are not molding them in the right way. Because come the final examination, they are going to be asked the same question then they do not write it in the way that ER emphasize then they will be penalized.*
>
> [Interview File 3, School C]

And Mr Kapapero said:

> *Yes! The way I do it at national level when I am in Windhoek for marking. I just implement it here so that I will be at the same level. Yes! Because here if you are marking, and if you are lenient to learners it will affect them in the national examinations*
>
> [Interview File 3, School F]

Three of the seven biology teachers who participated in the study said that they used ERs when marking learners' activities. Most importantly, Ms Kashivi stated that if they do not use the ER, they would not mold their learners. The common reasons here for teachers to use the ER seems to be for molding learners and not that assisting teachers in order to plan their work effectively.

4.4.3 Results from classroom observations

Classroom observations were conducted with the aim of rigorously verifying the data gathered from survey as either supporting or contradicting what teachers initially claimed they do with the examiners' reports. Four teachers from the seven biology teachers who were selected in the interviews were randomly selected to participate in

classroom observations. The teachers selected were Mr Kapango, Mr Muronga, Ms Kashivi and Ms Hamutenya. However, Ms Hamutenya did not attend to any of the comments contained in the observation checklist which are comments mentioned in ERs. Ms Kashivi on the other hand only attended to one comment where she vaguely addressed a comment on digestion (statement 18 in appendix K). The following is an excerpt of how this comment was attended to:

> *So remember class that the stomach is where gastric acid is produced. Say this after me. (Class responds). Yes! Come examination please do not forget this. They (DNEA) like this question. These should be free marks if this comes...*
> [Observation File 2]

Twenty examiners' comments were selected on the human heart, digestive system, circulatory system, and eco-system. Observations were covered over several periods. However, most school timetables provide for at least three double periods per week and so provided more time for each topic to be observed.

Mr Muronga is a Biology teacher stationed at School F. He holds a BEd degree and has been teaching Biology for 9 years. Mr Muronga taught lessons on the human circulatory

system and ecosystem. Ten lessons were observed on the circulatory system and eight lessons on ecosystems. Mr Muronga attended to five out of 20 ER comments on the topic of circulatory system and four ER comments on ecosystem. The statement given by the ER was that "many candidates fail to give a good account and fail to identify blood cells". Extracts from Mr Muronga' instructions are given below for the human circulatory system.

Mr Muronga: *Mildred, please give me the various cells of the blood that I just mentioned?*

Mildred: *silence…she hesitates…*

Mr Muronga: *You see class. I spent almost 15 minutes explaining these cells and yet she cannot give me an answer. This thing is important because the examiners like this question. I am not emphasising for nothing…*

[Observation File 3]

Another observation focused on candidates failing to explain why veins have valves and why arteries are elastic. Mr Muronga included this statement as follows in his lesson on the human circulatory system:

Mr Muronga: *How many of you have gardens?*

Class: *Majority of learners raise their hands.*

Mr Muronga: *Ok! Good. Who knows what happens if you use a big and very wide horse pipe to water a garden?*

Class: *Class hesitates.*

Mr Muronga: *Ok! What if I use a thin horse pipe? What happens at the end of the pipe to water?*

Class: *silence ….*

Mr Muronga: *Thin pipes water pressure is high while thick pipes pressure is low. So arteries have thin elastic walls so that pressure is high and blood can be pumped far. The veins are wide and have valves to stop back flow of blood. This point is important. I have seen this question asked in examinations…*

[Observation File 3]

Another statement focused on the left and right ventricles about the structure of the heart. This is what he has to say:

Now with the ventricles you need to be careful in the examinations. This one causes problems to learners all the time. Remember that when you seating with the examination paper in front of you, the ventricle on your left hand side is the right ventricle and the one on your right hand side is the left. It works by opposites.

[Observation File 3]

Another of his comments focused on wrong concepts such as "hearts beats faster" instead of "heart rate increases". He has this to say:

…I know most of us think in our mother tongue and we end up writing in the mother tongue. But those examiners are marking in English. I said it to my previous learners not to say Mutjima kwakutukauka unene (he said this in one of the local languages, Rukwangali, meaning "heart beats fast"). (Class laughs). Don't laugh because this is serious. The heart does not "beat faster" but the "heart rate increases" is correct way…

[Observation File 3]

Another comment was on the action verbs used in examination questions, such as the difference between "to explain" and "to describe". He has the following to say"

Mr Muronga: *Learners don't fail examinations because they don't know. My colleague at the back there will agree with me (referring to the researcher). The problem is in learners not understanding what the examiners want. For example, Describe and Explain. Trouble there. You describe an object and you explain a process….*

[Observation File 3]

Mr Muronga attempted to address some issues on comments that appear in the ERs but in an ad hoc way. Even the points he brought out where mostly in a way that was not planned well to learners. It was done as if reminding learners but not really going in detail, that is, explain in length why the concept should mean what it means and not something else.

The same trend went to his lessons presented on the ecosystem. The following are some of extracts taken from lesson given on ecosystem focusing on disease and pathogen:

Mr Muronga: *I have some chocolate to give out today. It was payday. Can someone tell me the difference between disease and a pathogen?*

Class: *(Hesitation in class).*

Mr Muronga: *I will give chocolate to anyone who gives me the right answer. Helen come here. (Takes copy of ER). Read to the class what the examiners are commenting on this point.*

***Helen**:* *reads the comment.*

***Mr Muronga**:* *You see, it is important you know this difference because the examiners will give you zero. A pathogen is what causes the disease and the disease is just the disease…*

[Observation File 3]

The explanation here from Mr Muronga was very vague but at least he had brought it to the attention of learners that they needed to be careful in using certain words as they might have different meaning. In another lesson that was observed, Mr Muronga on "gene pools" and said:

> *Gene pools are not swimming pools. (Class laughs). Whenever we hear pool… swimming comes in our minds. Is it because of the Kavango river? Gene pool is a set of all genes, or genetic information in any population, usually for a particular species.*

Remember! This is important for your examinations. They like it a lot the examiners. [Observation File 3]

Another comment was on the uses of wrong terminology as direct translations in local languages, such as "enough grass" and said:

Mr Muronga: *Why do you think the animals here in this picture moved from this point A to D? (Class raises hands to answer).*

Mr Muronga: *Yes David, tell us the answer.*

David: *Sir! There was no enough grass in area A.*

Mr Muronga: *Please! Please! Please! I beg you never to use words like enough. What is enough? It does not mean anything. You cannot quantify anything by using enough. Even in examinations they say it. So many times learners lose marks for nothing…*

[Observation File 3]

Another comment focused on the misconception about deforestation that most learners think that all plants are removed from a certain area. Mr Muronga focused on this point as follows:

Mr Muronga: *Today we shall look at the effects of deforestation. On Wednesday, we introduced this topic. Who remembers what we said about deforestation?*

Class: *Class raises hands.*

Mr Muronga: *Yes! George. Give us the answer.*

George: *That is when all plants in the forest are removed.*

Mr Muronga. *Is the answer correct?*

Class: *Yes!!*

Mr Muronga: *Where is my ER copy? Let me show you something. This is a 2011 R and this is what the examiners said. (Reads the ER) deforestation – most learners seemed to think that all plants are removed. Can you see! Let us go back to what I said. What did you write?*

[Observation File 3]

Again, Mr Muronga attended to ER comments as a "by the way". Though impressive that he come with the ER in class and read to the learners, it would have been more effective to emphasise the points within instruction. For example, learners were heard trying to memorise deforestation because Mr Muronga had read the particular comment in class.

The next section reports Mr Kapango's classroom observation.

Mr Kapango is a Biology teacher stationed at school D. He holds a BEd degree and has been teaching Biology for 8 years. Mr Kapango had two sub-topics observed namely, human heart and digestive system. Four lessons per topic on the human heart and digestive system were observed. Mr Kapango attended to four ER comments out of 20 comments provided on the observation schedule (See appendix K) on human heart and three comments on digestive system. The following extract illustrates his teaching about the digestive system. The ER's comment was that candidates failed to identify muscular wall of the elementary canal.

***Mr Kapango**:* *Can someone name the parts of the stomach labelled A, B, C, D and E?*

Class: *A was Oesophagus, B was Duodenum, C was, Villi D was Pyloric sphincter and E was Muscular wall*

Mr Kapango: *This diagram is always in every Biology examination. You must know it.*

Mr Kapango*:* *Part C is the Villi and part E is the muscular wall of the elementary canal…*

Mr Kapango: *What is the function of the duodenum?*

Class*:* *silence*

Mr KApango*:* *You need to know this this because those people in Windhoek like to bring this question. You cannot go to the examination without knowing this one. So, tomorrow all of your must come with a paper giving me the functions.*

Class: *How many sir?*

Mr Kapango*:* *Just write as many as you can. So before the lesson tomorrow we must deal with this one.*

[Observation File 4]

Just like Mr Muronga, Mr Kapango's teaching was very shallow as regards the mentioned difficulties contained in the ER. He lashed out at the learners for not providing correct answers to his questions.

The next extract was taken form a lesson on enzymes and again similar events could be observed. The extract illustrates how Mr Kapango tried to focus on an ER comment on the failure of candidates not to have appropriate knowledge about the pH and the working of enzymes.

Mr Kapango:	*The issue pH about is important. Many of you learners fail to answer questions in the examination because you don't know about this. Sara, you are a fast runner right?*
Class:	*(laughs)*
Sara:	*yes*
Mr Kapango:	*yes she is. She came first in the inter schools competition last year. So if they ask you to run when it is very hot or very cold can you run as fast?*

Sara: *No Sir!*

Mr Kapango: *Yes! Same for enzymes. pH determines the condition for enzymes too.*

[Observation File 4]

Now, turning to his teaching about the heart, in particular, on how valves in the heart function, he had this to say:

Mr Kapango: *Class, why do we need a valve at points in the heart? Why? Who has a bicycle? When you pump the bicycle tyre does air come out?*

Class in a choir: *No Sir!!*

Mr Kapango: *Good! Why?*

Class: *all learners were quiet*

Mr Kapango*:* *There is a valve you people. If you take that valve out all the air will come out. The valve allows air in one direction only but stops air coming out. That is the same for the valves in the heart. The blood is allowed in one direction only and no blood can flow backwards. This*

point is important also for your examination…

[Observation File 4]

In another lesson, Mr Kapango was teaching about the heart, he tried to correct the learners' mistakes and he seemed not to up overtly on this point. The next extract illustrates his teaching about this point:

Mr Kapango: *After running what happens to your heart.*

Class: *It beats very fast Sir!*

Mr Kapango: *Huh! I don't want to hear that word again. It is not scientific enough. Never use it. Say my heart rate increases. That is what those people in Windhoek want to hear.*

[Observation File 4]

It should, however, be remembered that this is not about people in Windhoek but about the correct and sound teaching about science concepts. His teachings were all shallow and were not convincing all. It seemed that he himself lack constructive knowledge about what he was teaching. This trend was also observed in all his teachings whenever he tried to focus on the ER's comments. This seemed as if the teachers were not using

the ER comment in order to prepare for teaching but rather just to mention these comments in the bypass. This is also observed in the next extract about blood vessels:

Mr Kapango:	*Which vessel carries blood to the heart?*
Class:	*No learner responded to his question. Class was quiet.*
Mr Kapango:	*Ok! Which vessel carries blood away from the heart?*
Class:	*quiet.*
Mr Kapango:	*Do you want to make the people in Windhoek happy or sad? If you make them sad you will be sad yourselves because come January those results are coming. So please this is your homework for today. (Enters it in his book)*

[Observation File 4]

The next extract is about blood clotting.

Mr Kapango:	*Who has seen a person hurt? I mean a person who has cut himself? What happens?*

Class:	*Bleeding.*
Mr Kapango:	*Yes! But why?*
Class:	*Because the heart is still pumping so blood comes out.*
Mr Kapango:	*Yes! I will deal with this in more detail later but it is very important for your examination to make sure you memorise this. Every year it is in the examinations.* [Observation File 4]

Like Mr Muronga, Mr Kapango did not plan most of the comments he gave to the learners. For that reason the comments in the lessons were all shallow and were not convincing at all. It seemed that the teacher may lack knowledge about the topics they were teaching. It would appear the teachers were not using the ER comment in order to prepare for teaching but rather would just mention these comments in passing.

4.2.4 Discussion of the results

Dirksen (2011) advises that the comments ought to be used to alter instruction as we present our lesson on a topic. The comments must be part of instructions for that topic of that day and not that comments must be presented separately. To put it simply, if I

find a comment on the topic of cells, as a teacher, I must emphasize those areas were the Chief examiner says there was weakness. Dirksen (2011) further said that teachers ought to use summative feedbackby:

> taking the students' results and using that feedback information to develop instruction designed to improve student outcomes, either through reteaching information on which students performed poorly or by changing how the information will be delivered in the future (p. 28).

Examiners' reports do not seem to form part of the teachers' lesson preparation. As a matter of fact, when the researcher asked the two teachers for the plans, they had not prepared them saying they had no time. They claimed that they had taught for many years and most of the material they already knew. So it may appear that ERs are not being used for classroom instruction. Also worth noting is the fact that every mention of a comment in from the ER is also followed by a reference to the examination. This is in line with Osaki and Ndabili (2003) study where they assert teachers are driven by examination success rather than knowledge impartation.

4.5 Summary

This chapter presented, analysed and discussed the results of the study and this was done according to the three main research questions. The first part presented the results of the research question one regarding the extent to which teachers used the ERs. This was collected via questionnaires and interviews. Results from the questionnaire indicated that the teachers who participated in the study agreed to reading through ERs, using ERs for classroom assessments and that they found the ERs easy to use and useful in their instruction. When followed up in the interviews, the teachers confirmed they regarded ERs as important and also that they kept copies in their files. They however also revealed that they mostly used the ERs for improving learners' ways of answering examination questions and not for improving their instruction.

The second part presented results of the second research question about what perceptions teachers hold of examiners reports. Again, questionnaires and interviews were used to collect information. The questionnaire revealed that teachers disagreed that using ERs was a time consuming process and disagreed that implementing ER comments gave them more work. The interviews however revealed that the though the teachers claimed ERs were important to both learners and teachers, their explanations placed the focus on the learners. The teachers saw them as a tool to help learners prepare for examinations, used them as a marking key for their own class tests and consulted them when preparing challenging topics.

The third part presented results of the third research question about how teachers used ERs in their classrooms. To collect this information, a questionnaire, interviews and classroom observations were conducted. Results of the questionnaire revealed teachers were positive about using the ERs in their classes for teaching and learning process. Followed up in the interview, it emerged that teachers used the ERs for preparing learners for examinations, used the ERs as marking keys for their class tests and used ERs for preparing for challenging topics. The observation confirmed that teachers were hardly using ER comments for classroom instruction and when they did refer, gave very vague explanations to their learners.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the researcher provides a summary, conclusions and recommendations of the study with specific reference to the main research questions. The purpose of the study was to gain insight into the use of comments of examiners by Biology teachers in the Kavango East Educational Region of Namibia. These comments appear in examiners' reports after summative examinations year after year in Namibia. The summary, conclusions and recommendations are presented according to the main research questions listed below:

- **Research Question One:** To what extent do Biology teachers use examiners' reports?
- **Research Question Two:** What are the Biology teachers' perceptions of examiners' feedback?
- **Research Question Three:** Do Biology teachers use examiners' feedback in their classes?

The next section presents the summary, conclusions and recommendations of the study for the first research question.

5.2 Research Question One: To what extent do Biology teachers use examiners' reports?

5.2.1 Conclusions

The main conclusions for the question may be summarised as follows:

- The majority of teachers in the selected sample agreed to have been reading through the report.
- The majority of teachers also agreed to using ERs for classroom assessment.
- The majority of teachers agreed that they found ERs easy and useful for instruction purposes.
- Majority of biology teachers regardless of the school they were from, pointed out that they regarded examiners' reports to be very important.
- The teachers also pointed out that ERs are usually delivered late to schools.
- Majority of teachers indicated that they have copies of the ER in their personal files.
- Some teachers indicated to having used previous ERs when the ER for the current year was delivered late.

- Most of the biology teachers did not seem to use the ER for improving instruction either in reteaching or emphasising issues in the ERs feedback but rather for learners to improve on their ways of providing answers to examination questions.

5.2.2 Recommendations

Following on the findings above, the following recommendations are made:

- The ministry of Education through the DNEA should ensure ERs are made available to teachers in good time.
- At a micro-level, there must be collaboration between teachers who go for marking and those who don't so that those who do not mark are assisted especially when examiners' reports are delivered late and there is need to point out areas that may need attention.
- Teacher training by way of seminars and workshops should be conducted by the MoE to help teachers in understanding the proper use of the ERs which can bring about understanding of Biology content and improvement in the results.

5.3 Research Question Two: What are the Biology teachers' perceptions of examiners' feedback?

5.3.1 Conclusions

The main conclusions for the question may be summarised as follows:

- The majority of the teachers disagreed that using examiners' report was time consuming.
- Majority of disagreed that implementing examiners' reports gave them more work.
- Most of the responses revealed that they have positive perceptions towards using the report.
- Majority of teachers percption of ERs is that they are for getting correct answers to questions posed in the examination papers rather than using the feedback to improve on their instructions.
- Most of the teachers seem to shift the responsibility of using ERs to improve instruction to learners who they expect must follow ER comments and improve performance.
- Teachers' focus on the importance of ERs seems to be examniation driven.

5.3.2 Recommendations

- Regular in-service training is imperative so that teachers become "informed consumers" who can make informed decisions about what they should take out of examiners' reports and how they can use it in a classroom situation.
- There is a need for DNEA to address the wrong perception teachers hold that examiners' reports are for examination drilling and inculcate the idea of using examiners' reports to diagnose learning needs hence improve learners' performance.
- It would be interesting to carry out a study on learners' perceptions of examiners' reports.

5.4 Research Question Three: Do Biology teachers use examiners' feedback in their classes?

5.4.1 Conclusions

The main conclusions for the question may be summarised as follows:

- Majority of teachers use ERs for preparing learners for examinations for revision purposes.

- The teachers seem to use ERs to show learners on how to provide correct answers to examination questions.
- The teachers seem to use the provided answers in the ERs as atype of an answer key for their class tests.
- Teachers also indicated they look through examiners' feedback when they are preparing lessons on challenging topics
- In cases where teachers referred to ERs comments, they did it in a way that is not planned but ad hoc and explanations lacked depth.

5.4.2 Recommendations

In the light of the above discussion, the following recommendations are suggested:

- At a micro- level, heads of departments should encourage use of examiners' reports for their teachers.
- Centre for Professional Development (CPD), DNEA, MoE and the Education Regional offices should carry out sensitisation programmes and workshops for teachers on how to incorporate examiners' feedback into the teaching – learning process.
- The institutions of higher learning tasked with producing secondary school teachers, should work in collaboration with the DNEA to provide pre-service teachers with support on the use of examiners' reports.

- To find the extent to which the ER comments ought to be used by teachers to cause reduction in repeating errors and improvement in learner's performance would require that another study be conducted. So it is strongly recommended that another study be conducted that would help ascertain the exact extent of use of examiners' reports that reduces occurrence of errors and improves performance.
- The study concentrated on only one region, there is a need to extend it to all the 13 regions of Namibia.

5.5 Summary

This chapter presented the conclusions and recommendations of the study.

The main conclusions are that majority of teachers from the Kavango East Educational region who participated in this study agree that they use ERs. They also seem to think that ERs are important to the teaching and learning process.

The teachers' main perception of the ERs is that they are useful for examinations. They see them as providing information for learners that would help them pass examinations. The teachers also use the ERs as a marking memorandum for their own tests which they give learners.

On how teachers use ERs during instruction, classroom observations showed that the teachers hardly refer to ERs during classroom instruction. When they do refer to the ERs, it is usually in unplanned ways. The points are not properly emphasised to learners. In conclusion, Wees (2010) states that people continue to make the same mistakes if they do not use feedback. It is hoped that this study goes some way to reminding all concerned that examiners' reports and specifically examiners' comments, in the final analysis, should be embraced as an integral part of the strive towards proficiency and improvement of learning.

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Appendix A: Permission letter from University of Namibia

☎ (+264 61) 206 3111
Website: www.unam.na

340 Mandume Ndemufayo Avenue
Private Bag 13301
Windhoek
NAMIBIA

Inspiring minds & shaping the future

The School of Postgraduate Studies
P.Bag13301
Windhoek, Namibia
Tel: 2063523

E-mail: cshaimemanya@unam.na

Date: 14 May 2014

TO WHOM IT MAY CONCERN

RE: RESEARCH PERMISSION LETTER

1. This letter serves to inform that student: **Lloyd Nsingo** (Student number: **200967011**) is a registered student in the Department of **Mathematics, Science and Sport Education** at the University of Namibia. His/her research proposal was reviewed and successfully met the University of Namibia requirements.
2. The purpose of this letter is to kindly notify you that the student has been granted permission to carry out postgraduate studies research. The School of Post-graduate Studies has approved the research to be carried out by the student for purposes of fulfilling the requirements of the degree being pursued.
3. The proposal adheres to ethical principles.

Thank you so much in advance and many regards.

Yours truly,

Name of Main Supervisor: Dr H. U. Kandjeo-Marenga

Signed: ----------

Dr. C. N.S. Shaimemanya

Signed: ----------

Director: School of Postgraduate Studies

Appendix B: Request to Permanent Secretary Ministry of Education to conduct research in Kavango East Educational Region.

Private Bag 13301, Windhoek
Mobile 0814141011
Email: zalinsingo@yahoo.com
24th June, 2014

The Permanent Secretary,
Ministry of Education,
Private Bag 43186,
Windhoek.

Dear Sir

Re: Request for permission to conduct an Educational Research in the Kavango East Educational Region.

I 'am a student at the University of Namibia pursuing a Masters degree in Science Education. I do hereby kindly request permission from your office to conduct an educational study at secondary schools in the Kavango East Educational Region as part of the requirement for my studies during the month of July, 2014.

My research topic is: Uses of Examiners' Reports in Improving Biology Instruction: A Case of Kavango East Education Region, Namibia. If permission is granted, the first phase of the research project will involve distributing a questionnaire to all grade 11 and 12 teachers in eight secondary schools in the Kavango region offering Biology. The process of ticking off responses on the questionnaire will take approximately 15-20 minutes per teacher to complete and the teachers will do this on a voluntary basis. The second phase of the research will involve three schools and six teachers chosen on the basis of the results of the first phase of the research. These will participate in interview and observation. The information gathered will be treated with confidentiality and will be used solely for the purpose of research. Participates will have the right to withdraw from the research activity at any time.

I hope that the results of this study will positively contribute towards improving the teaching of Biology in our secondary schools by promoting the good use of examiners' reports thereby complementing the Ministry of Education's efforts through the DNEA to sensitize teachers to utilize the reports thereby improving learner performance.

I look forward to a favorable response from your good office.

Yours Sincerely,

Lloyd Nsingo
Masters Student
University of Namibia

Appendix C: Permanent Secretary's letter of permission to conduct research in Kavango East Region.

REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION

Tel: 264 61 2933200
Fax: 264 61 2933922
E-mail: Cavin.Muchila@moe.gov.na
Enquiries: Mr C. Muchila

Private Bag 13186
Windhoek
NAMIBIA
26 June 2014

File: 11/2/1

Mr Lloyd Nsingo
Private Bag 13301
Windhoek

Attention: Mr Lloyd Nsingo

RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH THE SCHOOLS IN KAVANGO EAST REGION

Your letter dated 24 June 2014, requesting permission to conduct an educational research at the schools in Kavango East Region referred above to, has reference.

Kindly be informed that the Ministry does not have an objection to your request to conduct a research at the school concerned.

However, you are kindly advised to approach the Regional Council Office, Directorate of Education, for authorization to enter and carry out your study at the schools in the circuit concerned. Participation by both teachers and learners should be on a voluntary basis.

Kindly ensure that your research activities do not disrupt the normal school activities.

By copy of this letter the Regional Director of Education is made aware of your request

MINISTRY OF EDUCATION
Office of the Permanent Secretary
26 JUN 2014
Private Bag 13186, Windhoek, Namibia

Yours sincerely

.....

Mr A. M. Nukena
PERMANENT SECRETARY
cc: Regional Director: Kavango

Appendix D: Request to Regional Director Kavango East Educational Region to conduct research

Private Bag 13301, Windhoek
Mobile 0814141011
Email: zalinsingo@yahoo.com
30th June, 2014

The Regional Director,
Kavango East Regional Council Directorate of Education,
Private Bag 2134,
Rundu.

Dear Sir

Re: Request for permission to conduct an Educational Research in the Kavango East Educational Region.

I 'am a student at the University of Namibia pursuing a Masters degree in Science Education. I do hereby kindly request permission from your office to conduct an educational study at secondary schools in the Kavango East Educational Region as part of the requirement for my studies during the month of July, 2014. I have already sought permission from the Permanent Secretary in the Ministry of Education in Windhoek as per letter attached.

My research topic is**: Uses of Examiners' Reports in Improving Biology Instruction: A Case of Kavango East Education Region, Namibia.** The first phase of the research project will involve distributing a questionnaire to all grade 11 and 12 teachers in eight secondary schools in the Kavango East region offering Biology. The process of ticking off responses on the questionnaire will take approximately 15-20 minutes per teacher to complete hence minimal disturbance to school activities and the teachers will do this on a voluntary basis. The second phase of the research will involve three schools and a total of six teachers chosen on the basis of the results of the first phase of the research. These will participate in interview and observation. The information gathered will be treated with confidentiality and will be used solely for the purpose of research. Participates will have the right to withdraw from the research activity at any time.

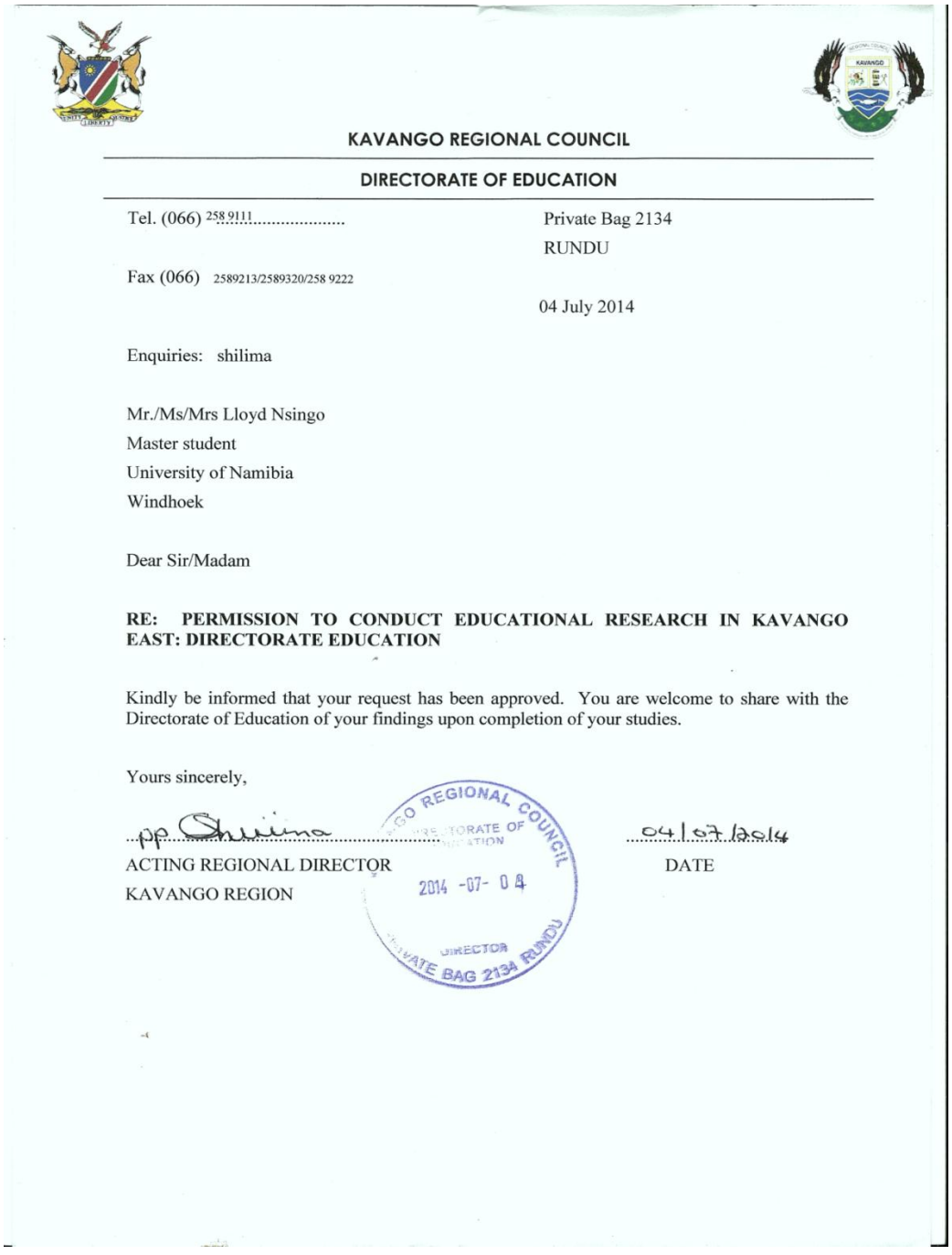
I hope that the results of this study will positively contribute towards improving the teaching of Biology in our secondary schools in Kavango East Educational region by promoting the good use of examiners' reports thereby complementing the Ministry of Education's efforts through the DNEA to sensitize teachers to utilize the reports thereby improving learner performance.

I look forward to a favorable response from your good office.

Yours Sincerely,

Lloyd Nsingo Masters Student
(University of Namibia)

Appendix E: Regional Director's permission letter to conduct research in schools in Kavango East Educational Region



KAVANGO REGIONAL COUNCIL

DIRECTORATE OF EDUCATION

Tel. (066) 258 9111 ..... Private Bag 2134
RUNDU

Fax (066) 2589213/2589320/258 9222

04 July 2014

Enquiries: shilima

Mr./Ms/Mrs Lloyd Nsingo
Master student
University of Namibia
Windhoek

Dear Sir/Madam

RE: PERMISSION TO CONDUCT EDUCATIONAL RESEARCH IN KAVANGO EAST: DIRECTORATE EDUCATION

Kindly be informed that your request has been approved. You are welcome to share with the Directorate of Education of your findings upon completion of your studies.

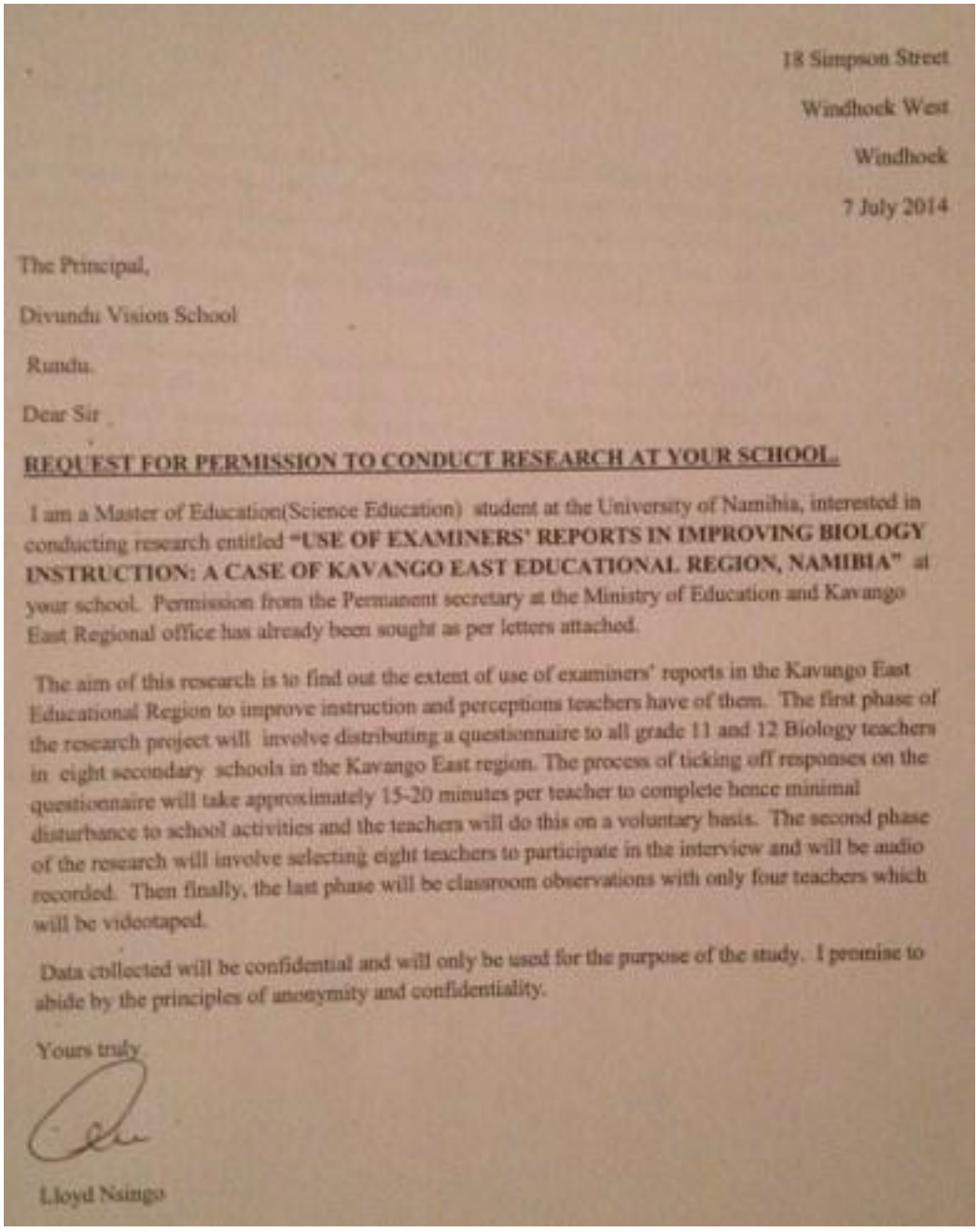
Yours sincerely,

pp Shilima 04/07/2014

ACTING REGIONAL DIRECTOR — DATE
KAVANGO REGION

KAVANGO REGIONAL COUNCIL
DIRECTORATE OF EDUCATION
2014 -07- 04
DIRECTOR
PRIVATE BAG 2134 RUNDU

Appendix F: Request to Principals to conduct research



18 Simpson Street

Windhoek West

Windhoek

7 July 2014

The Principal,

Divundu Vision School

Rundu.

Dear Sir

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT YOUR SCHOOL.

I am a Master of Education(Science Education) student at the University of Namibia, interested in conducting research entitled **"USE OF EXAMINERS' REPORTS IN IMPROVING BIOLOGY INSTRUCTION: A CASE OF KAVANGO EAST EDUCATIONAL REGION, NAMIBIA"** at your school. Permission from the Permanent secretary at the Ministry of Education and Kavango East Regional office has already been sought as per letters attached.

The aim of this research is to find out the extent of use of examiners' reports in the Kavango East Educational Region to improve instruction and perceptions teachers have of them. The first phase of the research project will involve distributing a questionnaire to all grade 11 and 12 Biology teachers in eight secondary schools in the Kavango East region. The process of ticking off responses on the questionnaire will take approximately 15-20 minutes per teacher to complete hence minimal disturbance to school activities and the teachers will do this on a voluntary basis. The second phase of the research will involve selecting eight teachers to participate in the interview and will be audio recorded. Then finally, the last phase will be classroom observations with only four teachers which will be videotaped.

Data collected will be confidential and will only be used for the purpose of the study. I promise to abide by the principles of anonymity and confidentiality.

Yours truly

Lloyd Nsingo

Appendix G: Letter accompanying questionnaire

18 Simpson Street

Windhoek West

Windhoek

8th July, 2014

Dear participant

You are invited to participate in a research project aimed at investigating the extent to which examiners' reports are used by teachers in their instruction as well as what perceptions teachers may have of the reports. The aim of this study is to explore the various challenges that teachers face on a day-to-day basis on applying feedback from examiners' reports for the improvement of teaching and learning. Your input and feedback are therefore crucial to the study.

Your participation in this research may entail audio-taped interviews and video-taped classroom observations. Your participation is voluntary. Should you be chosen to participate in an individual interview, confidentiality will be guaranteed and you may withdraw at any stage should you wish not to continue with the interviews.

If you are willing to participate in the research, please sign this letter as declaration of your consent; that is, that you participate in this study willingly and that you understand that you may withdraw at any time. Any information obtained from the conversations will be used solely for the purpose of this research.

Yours truly,

Lloyd Nsingo

Appendix H– Questionnaire

Your help in completing the following questionnaire is much appreciated.

In answering this questionnaire, please be as objective as possible. The aim is to gather information on the extent to which Examiner's reports are utilized by teachers in improving the learning – teaching process as well as gather information on the perceptions teachers hold regarding examiner's reports.

SECTION A: BIOGRAPHICAL DATA

(√) Tick what is applicable to you in the cycle.

1. Your Age 20yrs -24 yrs ◯ 25yrs – 29yrs ◯ 30yrs – 34yrs ◯ 35yrs – 39yrs◯ Over 40yrs

2. Gender? ◯ Female ◯ Male

3. Teaching Experience? ◯ 1 - 5yrs ◯ 6 - 10yrs ◯ 11 - 15yrs ◯ 16 - 20yrs ◯ Over 20yrs

4. Grade level you teach? ◯ Grade 11 ◯ Grade 12. ◯ Grade 11 & 12.

6. Academic Qualification? ◯ BETD ◯ PGDE ◯ BEd ◯ MEd

SECTION B: EXTENT OF THE USE OF EXAMINERS' REPORTS BY TEACHERS

Indicate the extent to which you use Examiners' reports by circling the appropriate number in the table below. Use the scale provided where 1 – Never 2 – Rarely 3 – Often 4 – Always.

		Never	Rarely	Often	Always
1	Are Examiners' reports delivered at your school every year?	1	2	3	4
2	Are you handed a copy of the Examiners' reports covering your subject?	1	2	3	4
3	Are examiners' reports handed to you in good time for you to utilize them in the teaching – learning process?	1	2	3	4
4	How often do you read through the examiners' report?	1	2	3	4
5	Are the comments obtained from reports useful in your lessons?	1	2	3	4
6	Do you find comments contained in examiners' reports easy to apply in your lessons?	1	2	3	4
7	Do your assessment strategies include ideas from examiners' reports?	1	2	3	4
8	Are comments in examiners' reports discussed in departmental meetings?	1	2	3	4
9	Does the HOD promote use of examiners' reports in the department?	1	2	3	4
10	Do you get any kind of assistance on how to use examiners' report?	1	2	3	4

SECTION C: PERCEPTIONS OF TEACHERS ON EXAMINERS' REPORTS.

You are kindly asked to put a circle in the box that correctly represents your opinion on feedback from examiners' reports. Note ***ERs*** *in the table is abbreviation for Examiners' Reports.*

		Strongly disagree	Disagree	Agree	Strongly agree
1	Using comments from ERs in Biology classes promotes learning.	1	2	3	4
2	Comments from ERs can be used as a diagnostic tool (formatively).	1	2	3	4
3	Comments in ERs are not in aligned with syllabus content .	1	2	3	4
4	Comments from ERs help teachers alter instruction to improve learning.	1	2	3	4
5	Using comments from ERs helps learners avoid repeating errors previously made by learners in previous examinations.	1	2	3	4
6	Implementing comments contained in ERs is a time consuming process.	1	2	3	4
7	Trying to implement feedback from ERs creates more work for teachers	1	2	3	4
8	ERs come too late in the teaching – learning process hence not useful.	1	2	3	4
9	ERs are too bulky.	1	2	3	4
10	It is difficult to translate comments contained in ERs into instruction.	1	2	3	4
11	Using comments contained in ERs is teaching for exams.	1	2	3	4
12	Comments contained in ERs are not clear.	1	2	3	4
13	Teacher training equips teachers how to use comments from ERs.	1	2	3	4

Section D: Do teachers use examiners' feedback in their classes.

		Strongly disagree	disagree	Agree	Strongly agree
1	Teachers should have copies of current and previous year's examiners' reports.	1	2	3	4
2	Comments from examiners' reports should be used for teaching purposes.				
3	Teachers should just teach according to the syllabus.				
4	For every topic, teachers must look through comments on that topic from examiners' reports to include into their lesson.				
5	Teachers should emphasize errors common in final examinations to their learners.				
6	Teachers should encourage learners to look at examiners' reports available on the internet and public libraries.				

Thank you

Appendix I: Teachers' consent form to take part in the study

CONSENT

I agree to participate in the research entitled **"USE OF EXAMINERS' REPORTS IN IMPROVING BIOLOGY INSTRUCTION: A CASE OF KAVANGO EAST EDUCATIONAL REGION, NAMIBIA"** as outlined in the consent letter.

Name ……..

Signature ……

Date ……..

Appendix J: Interview Guide

Research question one: To what extent do teachers use examiners' reports

1. Who hands you the examiners reports?
2. How many examiners reports do you have currently and do the cover all the years?
3. If the examiners reports are delivered late, what do you do, Explain?
4. If DNEA stops producing the examiners reports, would it affect your teaching?
5. Do you think you need help with using the examiners' report?

Perceptions

1. If DNEA stopped producing the examiners reports, what do you think will happen? Explain?
2. Do you think examiners' feedback is important to teachers?
3. Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?
4. Do you agree that teaching should be aligned to examiners' comments?
6. Do you think that checking through the comments in ER increases your work load?

Do teachers use the examiners' comments in their classes?

1. How do you use examiners' reports in your lesson?
2. A common comment in ERs is about learners' failure to understand concepts. How do you deal with this in your class?
3. Do you read examiners' report comments on a particular topic before you teach. Why or Why not?
4. Do you take into account comments from ERs when marking learners' activities or homework?

Appendix K: Observation checklist

OBSERVATION CHECKLIST – Human Circulatory system

School code_____ Date:_____ Teacher Code:_____

Grade:_____ Topic:_____

Does teacher deal with Specific comments from ERs on the topic?

		No	Yes
1	Confusion of left and right ventricles		
2	When shading ventricles candidates do not shade only the central part of the ventricle but entire.		
3	When showing direction of flow of blood into the heart, candidates do not draw arrows that which are at least half way to bottom of the ventricles.		
4	Candidates fail to correctly explain how valves operate.		
5	Candidates spell "oxygen debt" as "oxygen dept".		
6	Candidates could not give a good account and identify blood cells.		
7	Candidates fail to explain why veins have valves and why arteries are elastic.		
8	Candidates need to be aware of "explain and "describe".		

9	Candidates should be careful to ensure they understand what the question seeks. e.g. giving functional difference instead of structural difference.		
10	Confusion about cause and effect. Why questions in Biology refer to causes not effects		
11	Confusion of left and right ventricles		
12	Candidates must understand red blood cells walls are semi-permeable allowing oxygen, nutrients and carbon dioxide to pass through.		
13	Candidates failed to explain how structures of the heart ensure blood flows from pulmonary vein to the aorta.		
14	Confusion of arteries.		
15	Wrong terminology “heart beats faster”.		
16	Explain process coagulation of blood.		
17	Candidates fail to explain why veins have valves and why arteries are elastic.		
18	Candidates need to be aware of explain and describe.		
19	Candidates did not know that training at higher altitude increases number of red blood cells.		
20	Candidates unable to apply knowledge to new situations.		

OBSERVATION CHECKLIST - Digestion

School code_____ Date:_____ Teacher Code:_____

Grade:_____ Topic:_____

Does teacher deal with Specific comments from ERs on the topic?

		No	Yes
1	Candidates could not give identify muscular wall of elementary canal		
2	Confusion of parts of the digestive system		
3	Candidates unable to apply knowledge to new situations		
4	Candidates did not pay attention to action verbs		
5	Candidates failed to give the correct function of bile.		
6	Candidates failed to provide correct spelling for amylase. Centres urged to drill candidates in subject terminology.		
7	Candidates fail to identify blood vessels.		
8	Candidates failed to note the function of the liver in changing fats to cholesterol.		
9	Candidates panelised for referring to lipase or protease breaking down the fats/protein stain instead of saying that the lipase or protease breaks down the fat/protein in the stain.		

10	Confusion about enzyme, substrate and product relationship.		
11	Candidates could not explain function of villi		
12	Candidates failed to give a proper definition of a balanced diet.		
13	Candidates failed to give function of the duodenum during digestion		
14	Candidates failed to answer question because of a lack of knowledge of pH.		
15	Candidates could not identify the structure of the digestive system where fatty acids and glycerol is absorbed.		
16	Candidates referred to lactic acid as lactose		
17	Candidates must refrain from listing two separate answers as only the first will be considered.		
18	Candidates did not know that the stomach produces gastric acid.		
19	Candidates did not know that enzymes work on substrates.		
20	Candidates failed to interpret questions in a tabular form. Teachers should practice more on this.		

OBSERVATION CHECKLIST – The Human Heart

School code_____ Date:_____ Teacher Code:_____

Grade:_____ Topic:_____

Does teacher deal with Specific comments from ERs on the topic?

		No	Yes
1	Confusion of left and right ventricles		
2	When shading ventricles candidates do not shade only the central part of the ventricle but entire.		
3	When showing direction of flow of blood into the heart, candidates do not draw arrows that which are at least half way to bottom of the ventricles .		
4	Candidates fail to correctly explain how valves operate.		
5	Candidates spell "oxygen debt" as "oxygen dept".		
6	Candidates use wrong terminology, "heart beats faster" instead of "rate of heart beat increases".		
7	Candidates fail to identify blood vessels.		
8	Candidates need to be aware of "explain and "describe".		
9	Candidates should be careful to ensure they understand what the question seeks. e.g. giving functional difference instead of structural difference.		
10	Confusion about cause and effect. Why questions in		

	Biology refer to causes not effects		
11	Clarify terms of channel proteins and carrier proteins		
12	Candidates must understand red blood cells walls are semi-permeable allowing oxygen, nutrients and carbon dioxide to pass through.		
13	Candidates failed to explain how structures of the heart ensure blood flows from pulmonary vein to the aorta.		
14	Confusion of arteries.		
15	Explain importance of blood clotting.		
16	Explain process coagulation of blood.		
17	Candidates fail to explain why veins have valves and why arteries are elastic.		
18	Candidates failed to interpret questions in a tabular form. Teachers should practice more on this.		
19	Candidates did not know that training at higher altitude increases number of red blood cells.		
20	Candidates unable to apply knowledge to new situations.		

OBSERVATION CHECKLIST – Eco-systems

School code_____ Date:_____ Teacher Code:_____

Grade:_____ Topic:_____

Does teacher deal with Specific comments from ERs on the topic?

		No	Yes
1	Candidates unsure about the term population		
2	Confusion between disease and pathogen.		
3	Learners should note that toxic chemicals do not kill humans and other animals immediately but have long term effects on organs of the body		
4	Candidates lack knowledge of "gene pools".		
5	Confusion between homologous and analogous features		
6	Candidates could not explain effectiveness of burning as a control method.		
7	Instruction to draw a food web does not mean candidates must draw organisms		
8	Candidates lack understanding of the term diagnostic features.		
9	Deforestation – most think that all plants are removed.		
10	Candidates failed to read questions with sufficient care		
11	Candidates failed to recognise sun as source of energy for		

	food webs.		
12	Candidates did not know the water cycle.		
13	Confusion with classification system.		
14	Candidates lack understanding of the food web trophic levels		
15	Confusion with the definition of community.		
16	Candidates failed to explain effects of global warming		
17	Candidates response of "grass not enough" not credited.		
18	Candidates need practice in manipulation and interpretation and understanding on questions on graphs.		
19	Candidates unsure about the term population.		
20	Candidates did not know about "nuclear fallout".		

APPENDIX L1- Interview responses for teachers

Interview Guide for Biology Teachers

Research question one: To what extent do teachers use examiners' reports?

R stands for researcher.

Teacher: Tengeni

Researcher: Who hands you copies of examiners' reports?

Tengeni: *I get them from the Principal.*

Researcher: How many copies of examiners' reports do you have currently and do they cover all the years?

Tengeni: *They can only be only up to four. Because I am now in my fifth year teaching so I think I received every year except in the first year I started.*

Researcher: If examiners' reports are delivered late, what do you do? Explain?

Tengeni: *We quickly check through them and read the comments. We then make provision so that important comments are also given to learners so that they can prepare for examinations.*

Researcher: If DNEA stopped producing examiners' reports, would it affect your teaching?

Tengeni: *That would affect teaching negatively because now the teachers are going to lack in certain areas, for example, beginner teachers may not know the type of answering styles, question styles.*

Researcher: Do you think you need help with using the examiners' report?

Tengeni: *Personally I am fine, whenever I read an examiners' report then I get clear information on what went wrong, and what should be done. So there is no extra help needed. If I go through the examiners' report then I know exactly what to do.*

Teacher 2: Hamutenya

Researcher: Who hands you copies of examiners' reports?

Humutenya: *As soon as the examiners' reports get to the school, the person who usually gives them to the teachers is the principal.*

Researcher: How many copies of examiners' reports do you have currently and do they cover all the years?

Humutenya: *This is my fifth year and all the five years we have received and even have the previous ones.*

Researcher: If examiners' reports are delivered late, what do you do? Explain?

Humutenya: *I still use the previous ones because they carry the same message anyway. Because, if you look at that examiners' report, it just gives you a hint of on how learners were able to tackle certain questions, and why*

learners failed a particular question. So as soon as I get it, I will just refer to one or two areas because already I would have used the other one. They are basically almost the same.

Researcher: If DNEA stopped producing examiners' reports, would it affect your teaching?

Humutenya: *The way I see it personally, it may and may not, and I think it depends on the individual schools now. If the teachers at a particular school have not been using it then it will have no effect on them. But for those who have been using it, and then fail to get that paper then it may affect.*

Researcher: Do you think you need help with using the examiners' report?

Humutenya: *I don't think I need any help because the language they use is just straight forward and easy to understand so don't I think I need help.*

Teacher: Likuwa

Reseacher: Who hands you copies of examiners' reports?

Likuwa: *I have no idea who handles examiners' reports but all I know is that I get them from the Head of Department.*

Researcher: How many copies of examiners' reports do you have currently and do they cover all the years?

Likuwa: *Honestly speaking for grade 10 we are given every year. The only examiners' reports we have a problem is with grade 12. With the grade 12, this year is the first time I am getting it.*

Researcher: If examiners' reports are delivered late, what do you do? Explain?

Likuwa: *Like this term they were delivered to me around June, so that is really late. But never the less we are trying our best to go through with the learners looking for mistakes that previous learners made in the past paper. Yeah! We are getting there but in Biology it is a bit challenging because we have three papers so time is not on our side to deal with each and every paper. For multiple choice it is a little bit easy though there are some individual comments on each question. So that one I don't read it much.*

Researcher: If DNEA stopped producing examiners' reports, would it affect your teaching?

Likuwa: *Definitely it will because as an assessor I need to know how the learners performed at national level as these papers are marked at national level. So I need a report to know so that I can polish out mistakes that as a teachers I make and as learners they make. So it is difficult because if, I don't get them then how will I know how learners have performed in a particular paper or subject?*

Researcher: Do you think you need help with using the examiners' report?

Likuwa: *I don't think we need help there because it is user friendly. It is very straight forward and it is just like a memorandum. Only that they give comments on individual questions.*

Teacher: Kashivi

Researcher: Who hands you copies of examiners' reports?

Kashivi: *It is the Head of Department.*

Researcher: How many copies of examiners' reports do you have currently and do they cover all the years?

Kashivi: *I have four copies since I started in 2011.*

Researcher: If examiners' reports are delivered late, what do you do? Explain?

Kashivi: *We use previous ones because most of the times these questions are repeated.*

Researcher: If DNEA stopped producing examiners' reports, would it affect your teaching?

Kashivi: *Now there it is "yes" and "no". Yes because if they come out with new questions that they have not asked previously. But the no part is if the questions are to be repeated the way I have observed then it will not affect since we use the previous that we have so far.*

Researcher: Do you think you need help with using the examiners' report?

Kashivi: *So far I am fine with using examiners' reports.*

Teacher: Kapango

Researcher: Who hands you copies of examiners' reports?

Kapango: The examiners' report is usually handed to us by the Head of Department.

Reseacher: How many copies of examiners' reports do you have currently and do they cover all the years?

Kapango: Since I joined I have been receiving examiners' reports. But the one for 2010 when I joined, I just saw in the file of the teacher I replaced.

Researcher: If examiners' reports are delivered late, what do you do? Explain?

Kapango: *Though we don't receive the current one in time, there is a need to use the old ones because previous questions in the past examiners' reports may be repeated exactly the same questions*.

Researcher: If DNEA stopped producing examiners' reports, would it affect your teaching?

Kapango: Yes! Badly affect teaching. ERs are very important because they emphasize mistakes that were done by learners during the examination time so if we stop doing that we might not know how we should guide our learners on some certain questions, how they should be answering them. So I think it is very much important that we have them so if they stop them it is going to cause problems

Researcher: Do you think you need help with using the examiners' report?

Kapango: *Yes there is a need for doing that because new teachers may not have an idea of how to use or carry out content of the subjects taught and how learners would be able to answer questions. So it would be good if we can be trained.*

Teacher: Kapapero

Researcher: Who hands you copies of examiners' reports?

Kapapero: *It is the principal but sometimes if the principal is not around then it is the Head of Department.*

Researcher: How many copies of examiners' reports do you have currently and do they cover all the years?

Kapapero: *The past five years there are there in my file.*

Researcher: If examiners' reports are delivered late, what do you do? Explain?

Kapapero: *When we get them a bit late, it really gives us a tough time just to go through each of the points on the examiners' report and teach to learners, so you find that we have a lot of work to do when we teach our syllabus and to accommodate all the content it does not allow us.*

Researcher: If DNEA stopped producing examiners' reports, would it affect your teaching?

Kapapero: *I think it would affect my teaching because the examiners' report helps us on how to approach some of the questions on how learners should answer specific questions. Without these examiners' reports, learners might not know how to answer questions.*

Researcher: Do you think you need help with using the examiners' report?

Kapapero: *Yes! In some cases. Examiners' reports don't give a clear direction on how a question has to be answered. Like to mention in Biology, they don't specify how a question is to be answered. Like when you talk about Physical science, they give a proper direction and they also show how a question is supposed to be answered.*

Teacher: Muronga

Researcher: Who hands you copies of examiners' reports?

Muronga: *The principal collects them from the region but the head of examination centre is the one who distributes them to teachers.*

Researcher: How many copies of examiners' reports do you have currently and do they cover all the years?

Muronga: *They are not properly filed for us to have a proper record from the beginning like 2000 going up to the current year we in now.*

Reseacher: If examiners' reports are delivered late, what do you do? Explain?

Muronga: *In terms of teaching we make use of the experience of the teachers that go for marking, yeah! Like in certain subjects or in a department if there are certain teachers that went for marking, then we always encourage them whenever they come back from marking to share with others in the department like subject related matters to at least advise each other on how to teach, or certain mistakes learners are making when answering questions and so forth.*

Researcher: If DNEA stopped producing examiners' reports, how would it affect your teaching?

Muronga: *I think in a way it will because what I have realized is that sometimes the content we teach our learners at school is different from the marking that is done at the end of the year because that is why you find the marking system is completely different from the one at the school to the one at the national level.*

Researcher: Do you think you need help with using the examiners' report?

Muronga: *I think with that one very much, I think it would be needed more especially with teachers that are not going for marking as I said. Yeah! Because some of us who are fortunate to go for marking because even before we start are given a pre – training session and you become aware of what is going on. Then at the end of the day, the same markers are the same people who write that report.*

APPENDIX L2- Responses of teachers to interview questions

Interview Guide for Biology Teachers

Research question two: What perceptions do teachers hold of examiners' reports?

Teacher: Tengeni

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Tengeni: *There would be a change and the change would be a negative change. So ERs should be distributed every year. We would not do well because they are some marking and answering criteria that markers use so ERs give an idea of how learners were supposed to answer in order to get the number of candidate marks in questions and certain areas in the syllabus. So they need to expose those criteria to the learners now so that learners know that if you write like this then it is marked wrong because of "A" or "B".*

Researcher: Do you think examiners' reports are important to teachers?

Tengeni: *Thank you very much for that one. Teachers must always regard that very important, now in my case, I always try to do that to my level best to expose ERs comments to learners so that learners know how do they answer examination questions.*

Researcher: Do you think that the examiners' comments useful to teachers only or to learners too? Explain.

Tengeni: It is useful for all stake holders that means for both learners and teachers. Because what the teacher gives as wrong supporting information in the notes is what the learners also write in their examination as answers and this may be marked wrong because these are just statements but not the exact answer the question may want.

Researcher: Do you agree that teaching should be aligned to examiners' comments?

Tengeni: It is partly. However, the teacher also can relate the content to real life situation and then that's diverted from teaching for examinations. But I don't think there are really teachers who follow it dot to dot the marking scheme.

Researcher: Do you think that checking through the comments in ER increases your work load?

Tengeni: Not exactly because for somebody who really wants to achieve the targeted grades, performance, this must be done.

Teacher: Hamutenya

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Humutenya: Personally, it would not affect things if they stop. Because personally I already know what examiners are looking for when marking specific questions? I already know the simple mistakes learners do and I will be able to give learners and alert learners on what to do when writing examinations.

Researcher: Do you think examiners'reports are important to teachers?

Humutenya: Extremely important!! Because 1. It gives a background on how examination questions must be answered on every question and every area. For example, if we compare the higher level and ordinary level, they are not at the same level. So the way a higher level learner is supposed to answer a particular question is different from the way an ordinary level is supposed to. Because the levels are not the same. Even though it might even be the same question, you expect more from the higher level learner. These ERs are very important. They help the teacher to prepare learners for examinations. Because once the learners go to the examination room, they are confident because they know what they are expected of and they know what the examiners expect of them.

Researcher: Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?

Humutenya: *For both. You and the learners to avoid mistakes. For you because you are the one preparing the learners. For me, it helps me know what to prepare the learners. Because before any examination, you have to prepare your learners. You have to break them into the mood of examinations. You have to make them believe that examinations are not difficult. They are just but normal questions, normal tests.*

Researcher: Are the comments in the ER too general or should be specific to learners' performance as per educational region?

Humutenya: *It is ok! If it becomes specific then you are condemning that particular region for not preparing learners.*

.

Researcher: Do you think that checking through the comments in ER increases your work load?

Humutenya: *No! It is a part of my work. It is a part of my job. It is like when you are preparing yourself for any lesson.*

Teacher: Likuwa

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Likuwa: *How will I answer this one? Let me say it wouldn't really affect learners' performance because if the teacher prepares correct information and gives these learners correct information then it won't have a negative effect on the learners' performance. But then if the teacher struggles with the information not knowing if this is right way to go about it then it will affect.*

Researcher: Do you think examiners' reports are important to teachers?

Likuwa: *It is very important because this ER is written by people that have more experience. These people that have more experience on how content should be delivered. So these comments are important as they guide even new teachers coming into the system on how they should deliver the work. Biology is a very broad subject for that matter and guidance on the ER is very important because it gives the direction on what the teacher is supposed to do on what and on how the teacher is supposed to tackle specific content when it comes to content on a specific topic.*

Researcher: Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?

Likuwa: *Both of us. For the teacher it is important as they give you a direction as this is the way to give information to learners and then for learners it is important as it helps them when time for examinations, that this is how you produce this content.*

Researcher: Do you agree that teaching should be aligned to examiners' comments?

Likuwa: *I would agree with that comment like if we are only to use the ER then teaching is like we are teaching for the examination. Because this is a document that is produced after the examination and so if I am to use it then I am guiding my learners that if the examination is to come and if this is the question, then this is how to answer it.*

Researcher: Do you think that checking through the comments in ER increases your work load?

Likuwa: *No! I don't think so. To me I even see ERs as a review. The ER tells you an overall performance like for example in other schools around the country. Like take for instance a certain topic, you might think the problem is only here at our school but at the end of the day you will see it is not only here but it is also other parts of the country and so you will see the need for a serious polishing of those topics.*

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Teacher: Kashivi

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Kashivi: *Definitely, I stated earlier that the ER is like to update the teacher, and so if you are not updated then you will use old methods and these will definitely affect the performance of learners. Because there are some questions that are asked by the examiners that are not in the syllabus. What I am trying to say here is the application part here now. Because normally what we do in the class is theory. But examiners ask on practical things.*

Researcher: Do you think examiners' reports are important to teachers?

Kashivi: *Exactly, and they should not take it easy or soft. The experience I got when I went for marking last year there are a lot of things that I have learnt that those people there in Windhoek they don't take things easy. Unless you don't get ERs then you see them as if it is not useful. The experience I got when I went for marking last year there are a lot of things that I have learnt that those people there in Windhoek they don't take things easy. There are some certain things that learners write wrongly, it is because of the teachers also. Partly mistake from teachers*

also. Yes! So the ER in other words also teaches a teacher how to handle certain topics.

Researcher: Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?

Kashivi: For both. But it guides a teacher how to polish up in certain areas where learners make certain mistakes.

Researcher: Do you agree that teaching should be aligned to examiners' comments?

Kashivi: *Yeah! Especially when we use it when learners are about to write final examinations. That is a suitable time to polish on common mistakes that those learners commonly make.*

Researcher: Do you think that checking through the comments in ER increases your work load?

Kashivi: *No! It doesn't increase the workload because we use the ERS while we are planning. Yes! When I am planning for the next lesson and I want to give an activity then I go to the ER and I check how did they stipulate the way I must give the answer. So it does not give workload.*

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Teacher: Kapango

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Kapango: *It just depends. It can still be affected partly but not so fully because what is in the ER is not really something that can cause learners to fail completely because it is just small, small few issues that need learners to be guided on, whether it is not there does not mean that it might affect learners so negatively.*

Researcher: Do you think examiners' reports are important to teachers?

Kapango: *Very important. It is really guiding us on what mistakes we should consider.*

Researcher: Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?

Kapango: *For both of us, but it is more for the learners. With the learners it is more important because they are the ones to take up the examination and so must know the right things that are expected from them.*

Researcher: Do you agree that teaching should be aligned to examiners' comments?

Kapango: *No I don't agree because the ER does not only compose everything in the syllabus. But It works together with the syllabus, so whatever we are*

teaching is for the learner to get the content not only like to pass based on the ER. Most of the time we base it on basic competencies stated in the syllabus.

Researcher: Do you think that checking through the comments in ER increases your work load?

Kapango: *Not really, not really because during the preparations, or maybe the time the ER comes at least you go through once and then from there the time for preparing for examinations at least you can go through again.*

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Teacher: Kapapero

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Kapapero: *As regard the concern of the performance of the learners, also that might be affected because we normally provide them with ERs, we give them copies. We make them copies and distribute those copies to them and also read just for them to revise how to approach these questions, then it really helps them a lot. You find that the way how they mark at national,*

they consider how questions are supposed to tackled or answered then if you just teach the syllabus without knowing how that question is supposed to be answered then it becomes a problem because most of the learners being taught by teachers that don't go for marking then it is in the area where most learners are failing.

Researcher: Do you think examiners' reports are important to teachers?

Kapapero: *Yeah! It helps because it goes into detail on how questions must be answered during examinations. Then the learner is supposed to be straight to the point, not to write too many things. What examiners need is just the points.*

Researcher: Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?

Kapapero: *Both. It is important to the teacher and the learners. Why I am saying it is important to teachers is because it will help you as a teacher how to give a summary based on what is required on ERs because some of the information teachers give is irrelevant to learners. Even though you can give more content to them but you have to stick to what can be assessed in the examination. Like normally if you look at past ERs, you can tell which areas examiners mostly concentrate where they ask questions every year. You find some of the topics they don't really ask questions on*

those topics. It helps a lot the teacher to know which areas they normally concentrate when they set up questions for examinations.

Researcher: Do you agree that teaching should be aligned to examiners' comments?

Kapapero: *Not really teaching learners for examinations, but just to equip them with knowledge about the subject. But mostly we target the component which is given in the syllabus but should be in line with what you go through the ERs*.

Researcher: Do you think that checking through the comments in ER increases your work load?

Kapapero: *Not that much, but we can say it can also increase but not that much because you have to go through it and then you do your preparation also, so one way or the other it increases.*

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Teacher: Muronga

Researcher: If DNEA stopped producing ERs, what do you think will happen? Explain?

Muronga: *Yeah! I think they will be. There will be a significant change. As I said, these mistakes that the learners were making like the past. Let us say*

these grade 12 learners, they will be some certain mistakes learners will be making in the subjects while answering, then if not detected and the information not passed on. So the teacher will still perceive that the way I was dealing with those other learners is the same and I should continue with the same thing so then at the end of the day, if the same questions are asked then learners are going to answer them in the same way and that will negatively affect the performance.

Researcher: Do you think examiners' reports are important to teachers?

Muronga: *Yes! I think very much… because that is now coming even from experience of the people not only from a certain individual but is through discussion because you need to debate, argue until all of you come to a point where all of you agree that yeah this is correct. Yeah! I think for teachers it is very necessary that they should use the reports.*

Researcher: Do you think that the examiners' comments are useful to teachers only or to learners too? Explain?

Muranga: I think to both, to me as a teacher and the learners as well it is useful.

Researcher: Do you think teaching should be aligned to examiners' comments?

Muronga: *I do agree with that one. Because that is what teachers do in terms of revision, they are like going through question papers, like they are coaching, training, preparing them for examinations.*

Researcher: Do you think that checking through the comments in ER increases your work load?

Muronga: I think reduces. Yes using ERs. Because you don't go around and run for information again because it is provided so it becomes easier.

APPENDIX L3 – Responses of teachers on the interview

Interview Guide for Biology Teachers

Research question three: Do teachers use examiners' report comments in their lessons?

Teacher: Tengeni

Researcher: How do you use examiners' reports in your lessons?

Tengeni: *Personally I compare my teaching scheme with the ER then try to pick the report comments from the ER and list them next to the scheme of works. And then when I am teaching now, I then incorporate examination comments and would then expose learners to the correct way of answering this content and try to advice to refrain from what the ER is saying is not right*

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Tengeni: *From what I see, it is not really a problem with learners not understanding. From as far as I can rely on experience I got from national marking, I have concluded that the main problem is on action words. Those are the things learners fail to satisfy. If they do*

not satisfy action words, like "describe", "discuss", "relate" then they don't get marks.

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Tengeni: *I usually try to do that but not all the time. Sometimes there is too much work to do so it is difficult.*

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Tengeni: Marking is something else now, Yeah! We do but not always, not always.

Teacher: Hamutenya

Researcher: How do you use examiners' reports in your lessons?

Hamutenya: *Mostly when preparing learners for examinations but also in class here* *and there while I teach a topic.*

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Humutenya: asking *On that one, it is because examiners use different words when questions to these learners. Depending on the word that was used, you are expected to answer a question in a particular manner. Let us take for example, if a question is asking a learner to describe. There is a way to that the learners are expected to answer that question. A learner is supposed to describe, but in most cases learners explain instead of describing and they lose some marks.*

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Humetenya: *On some topics not all. I pick those which learners have challenges with from previous examinations*

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Humutenya: *Exactly. That is where you are able to correct mistakes. If you don't use it that time then when will you use it? You use it to penalize wrong answers so that you explain to them when you are revising. "Your answer was wrong because of this".*

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Teacher: Likuwa

Researcher: How do you use examiners' reports in your lessons?

Likuwa: *I look at the mistakes I know that these ones here are really common in our school or common with my learners based on internal examinations. So from then onwards I start to now polish on them. Sometimes as a teacher you also realize that you made a mistake when I taught this topic. So when you read the ER, you go back to that topic and you tell them that "guys when doing this work, this is how you do it. According to the report we have here it is wrong, there are certain things we were not supposed to do that way".*

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Likuwa: *Like I said sometimes these people the language they use is very simple and easy for someone to understand what they want. Normally, what they say there is that, "it seems learners failed to answer this question correctly". So then sometimes these factors they bring in do not apply to your area. So then what I do as a teacher is to ignore because I know they are not part of my problem.*

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Likuwa: *No. Becauseas I said I have not been receiving examiners' reports for grade 12 except this year. So I have not been using the comments for the topics.*

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Likuwa: Yes! Previously when I did not have the experience of marking national examinations, I did not know what they mean by certain comments. But when I went for marking that is when I picked up. So every teacher must be given an opportunity to mark? Yes! So that you know what is required there, how do these people mark and so forth. There are certain points where you will just not know what exactly these people want without exposure like me.

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Teacher: Kashivi

Researcher: How do you use examiners' reports in your lessons?

Kashivi: *I take the examination paper based on the ER and I go through the questions with learners. So when I read the questions then I go back to the ER to see how we are supposed to guide learners how to answer that specific question.*

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Kashivi: *I try to explain the content using different examples. Just to give them that understanding not to memorize what is written in the book. So I try to give them different situation so that they are able to use different words but giving the same answer.*

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Kashivi: *Not all the topics but I choose those that seem challenging for me to deliver. So once I come to a difficult topic then I go back to the ER.*

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Kashivi: *If we are not to use that ER and then we will just let them write in any way they think is right and then mark it then we are not molding them in the right way. Because come the final examination, they are going to be asked the same question then they do not write it in the way that ER emphasize then they will be penalised.*

Teacher: Kapango

Researcher: How do you use examiners' reports in your lessons?

Kapango: *I try to first make copies from the original question papers like previous ones and I can give my learners a test, from that previous one and then from there I will see how they answered those questions because I just want to find out how they do it. Then from there, I will mark them, after marking I will use the ERs to check what is expected of them after answering those questions. So after marking I go back into that class to give feedback either the next day and then I will focus on either the point on the correction stated in the ER.*

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Kapango: *Really to be honest with you, this Biology understanding is not easy. For the learners not understanding the subject well is just because of one of the components of this paper. Paper three is the one giving problems to these learners. Whether the information is given from the ER to learners they are still failing due to that paper contributing too much. Paper one and two, there are at least getting it.*

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Kapango: *I firstly look at the syllabus itself because that is the main tool you are expected to look at and then from there as I am busy preparing I sometimes can also read through the ER and if there is something about cells then I will see how the ER is trying to tell us on what we should focus on and then from there I will do the comparison and then make conclusions from these.*

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Kapango: *I am definitely doing that*

.**Teacher: Kapapero**

Researcher: How do you use examiners' reports in your lessons?

Kapapero: Normally when I teach, I look at the topic that I am teaching then also the questions that they ask and then I put it in line with the ERs, to find out how do they normally ask, and they normally give the answers.

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Kapapero: Most of the topics that I see where the learners are not doing well are topics that involve experiments and it becomes a problem. I think that is what I come across in the ER especially in the Kavango region. Most learners do not do well in practical work because some of the teachers do not carry out the practical. They just teach them and give them theory but no practical. When it comes to answer questions, they find it difficult.

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Kapapero: Yeah! Normally when I teach, I look at the topic that I am teaching then also the questions that they ask and then I put it in line with the

ERs, how do they normally ask, and how do they normally give the answers.

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Kapapero: Yes!The way I do it at national level, the way I do it when I am in Windhoek for marking. I just implement it here so that I will be at the same level. Yes! Because here if you are marking, and if you are lenient to learners it will affect them in the national examinations. .

Teacher: Muronga

Researcher: How do you use examiners' reports in your lessons?

Muronga: Like with me it has been a while since I used it. As I said, we do receive but then the problem is with us is applying it that is where the whole problem is. But I think I am planning to try to integrate it like from topics like when I am teaching a certain topic before I go teach a certain topic I must go through then if there are comments related to that topic I should consider them so that when I present my lesson then I also include comments based on the topic I am going to give. But for this year I did not use.

Researcher: A common comment in examiners' reports is about learners' failure to understand concepts. How do you deal with this in your class?

Muronga: *That one is still a challenge with most of the learners we have, that they are not open. They tend to be very shy then it becomes very difficult so the only way you can do assessment is either a test you give or a mock examination, or a class activity. But orally when you try to assess them or as you conducting the lesson is very hard. You find only the usual learners in the class more especially the best performing learners are the ones that usually participate but the ones with the problem do not come out so it is very difficult to assess that, so it makes it a challenge.*

Researcher: Do you read examiners' report comments on a particular topic before you teach. Why or Why not?

Muronga: *Not yet. But I plan to start doing that next year.*

Researcher: Do you take into account examiners' comments when marking learners' activities or homework?

Muronga: *Yeah! That one I do because normally I always have a scheme of work of national assessments that we are marking, I always try to*

keep so that if I am assessing them based on things that are similar I always try to assess them those similar things.