The experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province

By

Hilton John Abrahams

Submitted in partial fulfilment of the requirements for the degree of

Master of Philosophy in Higher Education

in the Department of Curriculum Studies, Faculty of Education

at Stellenbosch University

UNIVERSITEIT
IYUNIVESITHI
STELLENBOSCH
UNIVERSITY

100
1918·2018

Supervisor: Prof EM Bitzer

March 2018

Stellenbosch University https://scholar.sun.ac.za

DECLARATION

By submitting this thesis electronically, I declare that the entirety of this work contained therein is my own, original work, that I am the authorship owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any other qualification.

H Abrahams March 2018

Copyright © 2018 Stellenbosch University

All rights reserved

Stellenbosch University https://scholar.sun.ac.za

ABSTRACT

Assessment plays a key role in determining the quality of student learning and is the tool used at many academic institutions to help gauge student performance and determine student success. In view of the myriad of factors that may influence the learning environment and particularly student performance and success, a need was identified to investigate the potential influence of assessment practices on student performance at an agricultural institute. In higher education students move from secondary education practices into a tertiary academic sector that may not adhere to the same assessment criteria. This sudden change in assessment environment could have an effect on student learning and student performance. Several authors have highlighted the fact that assessment drives learning while several have indicated assessment practices plays a role in student performance. Very few studies have been conducted on the assessment practices at agricultural education institution in South Africa. Such knowledge may provide valuable information to first-year students, lecturers and policy makers of foundation programmes at the Elsenburg Agricultural Training Institute and similar agricultural training institutes. In this study the research problem originated from staff observations and concerns at the Elsenburg Agricultural Training Institute (EATI) which included the quality of students that enter the institute, coupled with seemingly low throughput rates as well as first year success rates as well as the confusion around the existence and use of a teaching; learning and assessment policy.

Thus, the aim was to investigate the experience of assessment practices at one agricultural institute potentially influence first year students' and staff's perceptions regarding academic performance. Two data sources were used, the experiences of the BAgric and Higher Certificate first-year students and the opinions of the lecturers involved in the teaching of first-year students. These data sources contributed to determining the perceptions of the tested parties on whether assessment practices had an impact on student performance.

In conducting the study, a pragmatic stance on knowledge was taken and questionnaires for students and for teaching staff were used with qualitative and quantitative data sections.

Stellenbosch University https://scholar.sun.ac.za

The findings of this inquiry indicate that there exists a perception amongst both staff and students that assessment practices (and several other contributing factors) could potentially impact on students' academic performance at the EATI. Implications flowing from this study for the Elsenburg Agricultural training Institute as well as possibilities for future research are pointed out.

Stellenbosch University https://scholar.sun.ac.za

OPSOMMING

Assessering speel 'n sleutelrol in die bepaling van die gehalte van studenteleer en is die instrument wat by baie akademiese instellings gebruik word om studente se prestasie te meet en om studentesukses te bepaal. In lig van die magdom faktore wat die leeromgewing en veral die student se prestasie en sukses beïnvloed, is daar 'n behoefte geïdentifiseer om die potensiële invloed van assesseringspraktyke op studenteprestasie by 'n landbou-instituut te ondersoek. In hoër onderwys beweeg studente van sekondêre onderwyspraktyke na 'n tersiêre akademiese sektor wat nie aan dieselfde assesseringskriteria voldoen nie. Hierdie skielike verandering in assesseringsomgewing kan 'n uitwerking op studenteleer en studenteprestasie hê. Verskeie outeurs het die feit beklemtoon dat assessering leer dryf, terwyl verskeie aangedui het dat assesseringspraktyke, 'n rol speel in studenteprestasie. Daar is baie min studies gedoen oor die assesseringspraktyke by landbouonderwysinstellings in Suid-Afrika. Sulke kennis kan waardevolle inligting aan eerstejaarstudente, dosente en beleidmakers van grondslagprogramme by Elsenburg Landbou-opleidingsinstituut en soortgelyke landbouopleidingsinstellings verskaf. In hierdie studie het die navorsingsprobleem ontstaan uit personeelwaarnemings en bekommernisse by die Elsenburg Landbou-opleidingsinstituut (EATI) wat die gehalte van studente wat by die instituut ingeskryf het, tesame met skynbaar lae deursetkoerse sowel as eerstejaarsuksesyfers asook die verwarring rondom die bestaan en gebruik van 'n onderrig; leer- en assesseringsbeleid.

Die doel was dus om te ondersoek hoe die ervaring van assesseringspraktyke by een landbouinstituut moontlik die eerstejaarstudente en personeel se persepsies rakende akademiese prestasie beïnvloed? Twee databronne is gebruik, die menings van die eerstejaarstudente BAgric en Hoër Sertifikaat en die menings van dosente betrokke by die onderrig van die eerstejaarstudente. Hierdie databronne het bygedra tot die bepaling van die persepsies van die getoetsde partye oor die vraag of assesseringspraktyke 'n impak op die prestasie van studente gehad het.

By die uitvoering van die studie is 'n pragmatiese houding geneem en vraelyste vir studente en vraelyste vir onderrigpersoneel met kwalitatiewe en kwantitatiewe afdelings gebruik.

Die bevindings van hierdie studie dui aan dat daar 'n persepsie onder personeel en studente bestaan dat assesseringspraktyke (en verskeie ander bydraende faktore) potensiële impak op studente se akademiese prestasie by die EATI kan hê.

Stellenbosch University https://scholar.sun.ac.za

Implikasies wat voortspruit uit hierdie studie vir die Elsenburg Landbou-opleidingsinstituut sowel as moontlikhede vir toekomstige navorsing word uitgewys.

Stellenbosch University https://scholar.sun.ac.za

ACKNOWLEDGEMENTS

My sincere thanks and appreciation are hereby expressed to the following persons and institutions that made an important contribution to the completion of this thesis:

- First and foremost, praises and thanks to God, the Almighty, for His showers of blessings throughout my research work to complete the research successfully.
- Professor Eli Bitzer, for his extremely competent and professional guidance as well as his unwavering patience and belief in me.
- My husband Karl for your love, understanding, support, encouragement and help.
- My son Mckenzie, for your love and laughter that constantly reminded me that I could do this.
- Aatika Valentyn, my supervisor and friend for your support and guidance.
- My employer, colleagues and friends for all your support.

Stellenbosch University https://scholar.sun.ac.za

TABLE OF CONTENTS

Stellenbosch University https://scholar.sun.ac.za

Stellenbosch University https://scholar.sun.ac.za

Chapter 4: RESEARCH DESIGN AND METHODOLOGY

Stellenbosch University https://scholar.sun.ac.za

Chapter 5: RESULTS AND DISCUSSION

Chapter 6: CONCLUSIONS AND IMPLICATIONS

Stellenbosch University https://scholar.sun.ac.za

LIST OF REFERENCES

LIST OF ADDENDA

Stellenbosch University https://scholar.sun.ac.za

LIST OF TABLES

Stellenbosch University https://scholar.sun.ac.za

LIST OF FIGURES

Stellenbosch University https://scholar.sun.ac.za

Stellenbosch University https://scholar.sun.ac.za

Stellenbosch University https://scholar.sun.ac.za

LIST OF ABBREVIATIONS AND ACRONYMS

ABET	Adult Basic Education and Training
ABM	Agricultural Business Management
AET	Agricultural Education and Training
AETS	Agricultural Education and Training Strategy
AgriSeta	Agricultural Sector Education and Training Authority
BAgric	Bachelor of Agriculture
CA	Continuous assessment
CAPS	Curriculum and Assessment Policy Statement
CHE	Council on Higher Education
DoE	Department of Education
EATI	Elsenburg Agricultural Training Institute
FA	Formative Assessment
FET	Further Education and Training
FET	Further Education and Training
GET	General Education and Training
HEQF	Higher Education Qualifications Framework
HESA	Higher Education South Africa
HET	Higher Education and Training
NCS	National Curriculum Statement
NQF	National Qualifications Framework
NSES	National Science Education Standards

Stellenbosch University https://scholar.sun.ac.za

OBE	Outcomes Based Education
OBET	Outcomes Based Education and Training
RNC	Revised National Curriculum
SA	Summative Assessment
SU	Stellenbosch University
TVET	Technical and Vocational and Training

Stellenbosch University https://scholar.sun.ac.za

CHAPTER ONE

ORIENTATION TO THE STUDY

1.1 BACKGROUND AND EDUCATIONAL CONTEXT

Over the last few years, there has been a proliferation in media attention and publications pertaining to a dynamic, hyper turbulent and changing education landscape which necessitates a re-examination of teaching and learning strategies as well as assessment practices both locally and internationally. In South Africa, heightened awareness of, and concern for academic performance and pass rates, have formed the basis of research undertaken by Downs (2009); Louw (2005); Mukorera and Nyatanga (2016); and Ngidi (2007) within higher education institutions. More specific research relating to assessment practices at agricultural colleges has been undertaken by Ross (2015) and Squire (2010). .

Assessment practices have been researched from various vantage points, inter alia, students' study strategies (Al-Kadri, Al- Moamary, Roberts and van der Vleuten, 2012), types of assessment, for example, formative assessment (Bennett, 2011; Black and William, 2009; Higgins, Grant and Thompson, 2010; Lopez-Pastor and Sicilia-Camacho, 2017), summative assessment (Cilliers, Schuwirth, Adendorff, Herman and van der Vleuten, 2010), continuous assessment (Everson, 2010; Israel, 2005) and integrative assessment (Plowright, 2011).

Some research pivots on the axial point that assessment drives learning (Bezuidenhout and Alt, 2011). Concomitantly, research proposes that any evaluation of assessment practices should additionally attempt to understand teacher-centred versus learned-centred paradigms (Huba and Freed, 2000), explore the influence of assessment practices on students' learning approaches (Troskie-de Bruin and Otto, 2004) and examine the teaching-learning environment (Crisp, 2012; Struyven, Dochy, Janssens and Gielen, 2006).

Researchers have also made concerted efforts to find solutions within the domain of learning assessment, and have examined, among others, how to effect changes through the refinement of lecturer assessment practices (Sayigh, 2006), involving

Stellenbosch University https://scholar.sun.ac.za

students in learning (Falchikov, 2004), examining the importance of communicating assessment feedback (Higgins, Hartley and Skelton, 2001) and by exploring the value of assessment writing retreats (Benvenuti, 2017).

Higher education in South Africa, post 1994, has experienced transformation in response to a changing political front and has also been plagued by bureaucracy (Clare and Sivil, 2014; Schrecker 2010; Young 1990). Universities, which by inclination are conservative institutions, have had to contend with rapid and imposing change. These institutions, generally considered to be at the centre of society's self-understanding, the hallmark of its history and values, have had to be open to change and challenge – to embrace the new (Harvey, Drew and Smith, 2006; Pityana, 2003). The institution that was always established to last an eternity, that takes pride in its history and tradition, often faces the real prospect of extinction or renewal, has had to adapt to market forces and many contradictory demands. For centuries self-defining under the rubric of autonomy and academic freedom, universities are seeing their missions being defined by others such as the agricultural industry, in the case of agricultural colleges. These institutions increasingly need to respond appropriately to visions set for a variety of purposes including the pressures of the market economy and the speed of the information society (Pityana, 2003; Smith and Goddard, 2005). The same observation was noted by Greenbaum and Rycroft (2014) when they indicated that the notion of developing graduate attributes through higher education was to enhance the employability of graduates and has become a focal point in academic circles in the past decade.

Nel, Troskie-de Bruin and Bitzer (2009) have indicated that a successful transition from school to university is crucial to academic success, especially in the first academic year, but that the South African schooling system produces students who do not easily succeed in higher education. One of the factors that they perceived as a problem was poor academic adaptation. In the same vein, Geyser (2004) accepted assessment as an integral part of learning which should be dealt with in a constructive manner and not be seen as an add-on to teaching and learning. Interestingly, Bezuidenhout and Alt (2011); Jürges, Schneider, Senkbeil and Carstensen (2012); Tait (2005); Wormald, Schoeman, Somasunderam and Penn (2009) all refer to the phrase "assessment

Stellenbosch University https://scholar.sun.ac.za

drives learning", which points to the importance of assessment in the sphere of teaching and learning in higher education.

1.2 DESCRIPTION OF THE PROBLEM

A review of relevant literature (Chapter 3) revealed that multiple studies have indicated that assessment practices influence students pass rates at first year level (Darling-Hammond, 2000; Linn, 2000; Newble and Jaeger, 1983; Struyven, et al., 2006).

In stark contrast to the secondary schooling system in South Africa, the Elsenburg Agricultural Training Institute (EATI) has no learning and teaching Policy and no assessment policy in place to assist lecturers and students in terms of specific guidelines to structure a course or to guide student learning. The Institute does not have an extensive assessment policy as in the case of Stellenbosch University even though a Bachelor of Agriculture (B.Agric) programme is offered by EATI in collaboration with the Faculty of AgriSciences at Stellenbosch University. However, the EATI does have a rudimentary outline of what constitutes the admission to examinations mark in the prospectus and which outlines the following information (EATI, 2011).

"This set of Academic rules was compiled specifically for the B.Agric. program offering of the Elsenburg Agricultural Training Institute. In case of any contradiction with the general rules of the University of Stellenbosch, these will apply."

"2. DETERMINATION OF THE EXAMINATION ADMISSION MARKS (PREDICATE MARKS)".

This states the following:

"2.1 Predicate marks are earned through scheduled and non-scheduled tests, assignments, practical tasks and library work.

2.2 In all modules two tests per semester are written during normal class time as a means of continuous evaluation. These tests are the only scheduled opportunities for earning a predicate mark.

2.2.1 Students must write at least two of the tests per module to earn a predicate mark.

Stellenbosch University https://scholar.sun.ac.za

2.2.2 If students are absent from such an evaluation opportunity (due to illness or other valid reasons), they forfeit that opportunity. They then have only one opportunity (sick test) in that module presentation left to earn a predicate mark.

2.2.3 If students do not write a test, they are given a zero mark.

2.3 Medical certificates or other documentation will be accepted as excuse for absence during any evaluation, **provided** it is presented within 2 work days after the evaluation. Students then have to write the sick test and no additional test opportunities will be scheduled.

2.4 Exceptional cases will be considered by Faculty Management on receipt of written, **well-motivated** representations by the student.

2.5 Composition of predicate mark:

The scheduled tests: at least 70% of the predicate

Other prescribed forms of evaluation: a maximum of 30%

Non-scheduled forms of evaluation: a maximum of 10%

The specific composition is determined by each module.

2.6 A sub-minimum of 50% is required for the practical component. If the sub-minimum of 50% for the practical component is not achieved, students do not earn a predicate" (EATI, 2011).

Apart from the above stipulations, no further guidelines are given to lecturers in terms of how to conduct classroom assessments, how to set up fair assessments or how to align module contents with appropriate assessment criteria. Therefore, this lack of a teaching and learning plan as well as the absence of assessment policy is a matter of concern as this could lead to misaligned assessments. It could also lead to increased failure rates or assessing a non-existing curriculum and thus setting students up for failure in subsequent modules and leading to cessation of studies. The question therefore remains as to how do the assessment policy and practices of Elsenburg potentially impact on learning and ultimately success rates among first year students? In determining such a position, the perspectives and views of both students and lecturing staff on how they experience assessment at EATI are important.

Stellenbosch University https://scholar.sun.ac.za

1.3 RESEARCH PROBLEM

The research problem for this study originated from the researcher's observations and interactions with lecturing staff employed by the department of Agriculture at the Elsenburg Agricultural Training Institute (EATI). Their concerns included:

- the quality of students that enter the institute,
- low throughput rates
- as well as inconsistent first year success rates (Table 1.1). Another important concern raised by lecturing staff was possible for first year success rates and the impact of the fact that EATI has no teaching and learning or assessment policy. Bezuidenhout and Alt (2011) highlighted that Bloom's taxonomy of cognitive levels is used internationally in higher education institutions to assist in preparing assessment materials and concluded that to ensure that deep, meaningful learning takes place, assessments must be geared to assess students at the higher cognitive levels (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich and Wittrock, 2001; Biggs, 1996; Bloom, Benjamin and Krathwohl, 1956).

All the above ideas contributed to the setting of the research problem which points to how assessment practices at the Elsenburg Agricultural College could potentially impact on student learning at first year level and might have consequences for their academic success rates. Thus, for the purpose of this research, three first year modules were selected to ascertain whether this might indeed be the case. Figures taken from the Elsenburg marks administration team indicate that pass rates are inconsistent among first year students enrolled for the Biology, Soil Science and Agricultural Business Management modules (see Table 1.1). These modules are all compulsory modules for first year students and part of the foundation phase of both the Higher Certificate and B.Agric courses offered at Elsenburg.

Table 1.1: Percentage of failures for three first year, first semester modules at EATI

Stellenbosch University https://scholar.sun.ac.za

Subject (Module)	Year	Students Registered	Students failed (no predicate and less than 50% final mark)	%
ABM 112	2010	98	30	30.6
	2011	111	32	28.8
	2012	108	25	23.1
	2013	74	22	29.7
	2014	109	29	26.6
Biology 113	2010	90	11	12.2
	2011	92	13	14.1
	2012	103	21	20.4
	2013	66	23	34.8
	2014	102	34	33.3
Soil Science 112	2010	105	20	19.0
	2011	94	17	18.1
	2012	97	12	12.4
	2013	67	18	26.9
	2014	97	29	29.9

In order to understand the situation, it has to be noted that all modules at Elsenburg employ the following ways to calculate a year mark: Two major tests are written by students and they represent between 70 and 80 percent of the students' year mark. These tests almost always exclusively test students' ability to recall information and the learning outcome levels as indicated by Bloom's taxonomy (Bloom et al., 1956) is frequently not applied to the test papers. In this study to the following were explored: the potential importance and the possible (if any) influence of the presence or absence of having a well-structured assessment policy in place as well as the ways it might contribute to success rates (pass rates) of first year students. In the process the views of students and lecturing staff became the prime data sources.

1.4 RESEARCH QUESTION

In view of the problem as outlined regarding observed gaps in the assessment policies and practices at Elsenburg, the main research question was stated as follows:

What are the experiences of students and staff of assessment practices at one agricultural training institute in the Western Cape Province.

The following sub-questions assisted in exploring the main research question:

- Is staff aware of existing assessment policies and practices at EATI?
- What type of assessment practices and techniques do lecturers employ at the EATI?

Stellenbosch University https://scholar.sun.ac.za

- how do first year students view assessment and assessment types to have an influence on whether they pass or fail modules at EATI?
- How does staff view assessment and assessment types to have an influence on whether students pass or fail modules at EATI?

1.5 BRIEF THEORETICAL ORIENTATION

It has been shown that the nature of assessment can be both complex and challenging (Brown, Bull and Pendlebury, 1997; Heywood, 2000). In fact, the importance of assessment in education (from primary to tertiary level) is so important that a Google search on assessment revealed a myriad of journals exclusively dedicated to the impact of assessment on various aspects relating to learning and there is a growing trend toward a reexamination of assessment practices (Margulies and Ghent, 2005). However, the impact of assessment in terms of education has long been an important topic in higher education (Al-Kadri, et al., 2012; Cilliers, et al., 2010; Crooks and Mahalski 1985;; McLachlan 2006; McManus, Richards, Winder and Sproston 1998 and Ramsden 1992).

Assessment, which implies a systematic collection of information about student learning in order to inform decisions made about the quality of such learning (Walvoord, 2010, p. 23), can have both a positive and a negative impact on student learning (Cobb, Brown, Jaarsma, and Hammond, (2013). The educational impact of assessment: a comparison of DOPS and MCQs. *Medical teacher*, *35*(11), e1598-e1607.., 2013). It is this (sometimes) singular act that is used to advance students to the next level of studies or deem them 'not yet competent'.

Literature on first year success rates in South Africa shows that one out of every three students will have dropped out of university by the end of their first year (Groenewald, 2005; Scott, Yeld and Hendry, 2007). Margulies and Ghent (2005) specifically looked at the issue of the impact of assessment on the pass rates of students who enrolled for a Microbiology course at Townsend University. The students came from different educational backgrounds which made teaching and especially assessing these students difficult as not all the students had Biology as a major subject and thus did not have all the knowledge that the students with Biology as a major would have. The

Stellenbosch University https://scholar.sun.ac.za

means of assessing these students was to use three exams and one final exam plus a single laboratory practical examination at the end of the semester. According to instructors interviewed for their article, this assessment approach led to poor grades for non-science majors.

The EATI has an almost similar situation at hand when one considers the admission requirements of the institute. Students can enter the institute and enrol for a course like Soil Science, Biology or even Agricultural Business Management when they only did one of these subjects at secondary school, thus frequently the students sitting in one of these classes will not have the same knowledge as their classmates who had the subject at secondary school. From anecdotal evidence (informal conversations with lecturers) and empirical evidence (some quantitative data), this does seem to have a bearing on whether these students will be successful in their specific modules.

The National Science Education Standards (NSES) in the United States of America (Margulies and Ghent, 2005) state that teachers should use multiple methods of assessment and that assessment tasks need to be valid and authentic and also that students should have adequate opportunity to demonstrate their achievement. One of the outcomes of this study was that assessment strategies as well as teaching strategies had to change to improve the learning environment and ultimately pass rates of students. Their study showed significant results in student pass rates (from high failure numbers to lower failure numbers) when the assessment type and frequency was changed and they proved that the increase in performance was caused by the change in assessment.

Mayende (2014), in his editorial in AgrisetaConnect (November/ December 2014) mentioned how the South African National Skills Development Strategy serves to guide the Agricultural Sector Education and Training Authority (AgriSeta) to lay emphasis on three key areas:

- the strengthening of ties between the agricultural sector and TVET (Technical and Vocational Education and Training) institutions (formerly known as FET Colleges) and agricultural colleges,
- the stepping up of post-school upskilling of young people and

Stellenbosch University https://scholar.sun.ac.za

- the empowerment of cooperatives through appropriate primary skills. Greenbaum and Rycroft (2014) echoed these sentiments when they investigated the notion of developing graduate attributes. Though these are policy related issues for an institute such as the EATI, the political and policy use translates into a great need in the South African context to ensure that students in the Agricultural Sector are successful in their studies.

Traditionally, teaching in South Africa has been passive, rigidly content- based, teacher centred and absent of public involvement. Venter (2001) postulates that recent developments, inter alia, the encouragement to students to become active learners, partly because of the relevance of learning material and input from various communities, has necessitated changes to teaching. Rapid education transformation in South African education has forced institutions of higher learning to not only critically examine their own practices, but also establish centres of teaching and learning (Roy, 2007) to assist students who embark on tertiary studies.

In South Africa a study was conducted by the Centre for Education Quality Improvement in collaboration with the National Department of Education as part of a national programme to implement an effective assessment system for improving learning in South African schools (DoE, 2007). Its purpose was to determine how assessment was understood and applied in schools to support the development and implementation of an effective classroom based computerised system. This was done because the assessment strategies used for addressing the learning needs of school learners were found to be inadequate (DoE 2007; Kanjee, Molefe, Makgamatha and Claassen, 2010; Pryor and Lubisi, 2002; Ramsuran and Malcolm, 2006; Sokopo 2004; Vandeyar and Killen, 2007).

The issue of the assessment of student learning in South Africa has enjoyed much attention and since 1994 South Africa has introduced several strategies and policies to address the issue which include the Assessment Policy in the General Education and Training Band, Grade R to 9 and ABET (Department of Education, 1997), the Interim policy framework for the assessment and promotion of learners in Grade 9 (Department of Education, 2003) as well as the national protocol on assessment for schools in the General and Further Education and Training Band - Grades R to 12

Stellenbosch University https://scholar.sun.ac.za

(Department of Education, 2005). In 1998 the assessment policy was revised to align it with curriculum changes implemented in the National Curriculum Statements (DoE, 2002). The new policy (Department of Education, 2007) places greater emphasis on classroom assessment by outlining the range of assessment information available to teachers, specifying the frequency and types of assessment information required for reporting on learner performance at the different grade levels and providing templates for recording and reports, for example, learner profiles. However, while the revised policy makes several adjustments to simplify assessment in South African schools Kanjee et al. (2010), noted that limited learning and teaching resources are available to specifically assist teachers in improving their classroom assessment practices. The implementation of Curriculum 2005 was a move from the National Curriculum Statement (NCS) to the Curriculum and Assessment Policy Statement (CAPS). CAPS is an amendment to the NCS Grades R-12, so that the curriculum is more accessible to teachers. This means that every subject in each grade has single, comprehensive and concise CAPS that provide details on what content teachers must teach and assess on a grade-by-grade and subject-by-subject basis.

The establishment of the Revised National Curriculum has meant that students that enter any institute of higher education have been exposed and subjected to Outcomes Based Education only (prior to 2015) and CAPS recently (Grussendorf, Booyse, and Burroughs, 2014). These students are now entering higher education institutions such as Elsenburg which very rarely use a system of continuous assessment or multiple assessment strategies to support and help these students to pass their first year at the EATI.

One of the challenges of teaching-learning is the shift from content-based education to student-centred education (Nel et al., 2009; Bezuidenhout and Alt, 2011). Accepting and adapting to new modes of teaching and learning have been described as a radical paradigm shift. This paradigm shift focuses on producing deep learning instead of providing instruction (Bezuidenhout and Alt, 2011; Vandeyar and Killen, 2003). The above authors showed that a major factor that impacts on this paradigm shift is assessment. An Institute like Elsenburg is no different and the absence of a fully functional assessment policy that is implemented and correctly used could have detrimental results for the success rate of especially first year students.

Stellenbosch University https://scholar.sun.ac.za

Pitted against the design principles of Meyers and Nulty (2009) it becomes apparent that the planning of an assessment task plays an important role. Several aspects are at stake and should be kept in mind eg. the criteria of validity; content domain; skill domain; reliability; fairness; security and feasibility be kept in mind. Academics use assessments on a near daily basis and though the “normal” academic would never be an expert in assessment planning and design, one can always (as a lecturer) hope that the planning of assessments is done so as to test relevant outcomes, objectives and encourage student learning. Therefore, an important aspect of assessment design is to ensure that the tool or tools used for assessment are effective in performing its purpose and adheres to the above mentioned criteria.

A successful assessment strategy should be formulated and introduced at all tertiary institutes. One aspect used by Luckett and Sutherland (2000) for successful assessment strategies relates to the validity of assessments. According to these authors, an increase in the validity of learning, assessment might encourage education institutions to:

- Clarify their learning outcomes and their link to the assessment criteria.
- Ensure that the methods selected are “fit for their purpose”.
- Use a range of assessment methods to ensure that all learning outcomes are assessed.
- Establish good links between assessment, learning and personal development by, inter alia, allowing students some element of choice, encouraging self-assessment and reflection.

Louw (2005) highlighted that one aspect that needs further investigation and attention at Agricultural Colleges is the use of assessment and its role in student learning. It was this study by Louw (2005) that highlighted the fact that an assessment policy does not exist at EATI.

This study is therefore designed to examine this issue further and look at possible implications of not having such a policy in place, to examine staff and students’ perceptions around the potential impact around the issues of assessment and how it

Stellenbosch University https://scholar.sun.ac.za

may impact on student success rates. In essence to align the potential impact of a non-existent assessment policy with perceptions of how important this lack of assessment documentation may impact on student success rates, if at all.

1.6 RESEARCH DESIGN AND METHODS

This section briefly highlights the key research design and methodology issues of the study. A full description is provided in Chapter 4.

1.6.1 Research paradigm

In terms of choosing a research paradigm for this study, pragmatism was viewed as the most appropriate. Pragmatism is a deconstructive paradigm that advocates the use of mixed methods in research which "sidesteps the contentious issues of truth and reality" (Feilzer, 2010, p. 8), and "focuses instead on 'what works' as the truth regarding the research questions under investigation" (Tashakkori and Teddlie 2003, p. 713). This philosophy was fathered by Peirce (1992) and Houser, De Tienne, Eller, Clark, Lewis, and Bront Davis, (1998) and also further investigated by Plowright (2016). Pragmatism is very much an action-oriented philosophy of science (Dewey, 1929; Peirce, 1992).

Pragmatists see the world as a set of practical actions that are born from thinking theory and practice are seen as two sides of the same coin (Peters, 2007). Plowright (2011) further stated that the pragmatic approach pertains to a holistic integrationism which employs a pragmatic, integrated methodology to undertake investigations using empirical data from observation, asking questions and artefact analysis. In line with this philosophy, this study was aimed at discovering what student's and staff's perceptions were regarding assessment practices and how it potentially influenced first year academic performance. It was therefore decided to only use questionnaires with quantitative type questions because first year students may not be capable of verbalising or expressing their understanding around the assessment and its impact while the staff questionnaire included both quantitative and qualitative parts. The intention was to ascertain whether students and staff believed that the types of assessment methods used at the EATI had an impact on first year student performance. This hopefully addressed the issues of the who, the where, the what, the why and the how of these students (Gubrium and Holstein, 2000).

Stellenbosch University https://scholar.sun.ac.za

1.6.2 Research approach

The logic or research approach applied to this study is of a deductive nature as proposed by Trochim (2006) who refers to the two “broad methods of reasoning as the inductive and deductive approaches” (p.1). He defined induction as moving from the specific to the general, while deduction begins with the general and ends with the specific. Thus this research seeks to move from a holistic perspective to a much more localised scenario where the possible impact of the use / non-use of assessment policies are highlighted and where questionnaires handed to staff and students are used to help narrow down the focus and discussion points of this thesis. This falls in line with expression of “works from the ‘top down’ penned by Creswell and Clark (2007). The intention was thus to work from an assumption, to a proposition, to data which would be used to add to or contradict the assumption. In particular, the logic was to ascertain whether students and staff were of the opinion that there might be a link between assessment practices / methods at EATI and student performance / success rates.

1.6.3 Research Design

This study used a survey design to investigate the research problem where both qualitative and quantitative information was used to generate the data. This design has the added benefit of being not only more inclusive but the variation in data collection could lead to increased validity. Some questions used in the student questionnaire were also repeated in the staff questionnaire to add a different perspective to the same question. This approach was also used as it has the potential to minimise or counter / disprove any pre-existing assumptions that might be in place (Bulsara, 2015).

1.6.4 Research methods

1.6.4.1 Instrumentation

Data collection process

Initial pass rates were used (see table 1.1) to decide which modules to include in this study. To determine lecturing staff and student’s perceptions on the importance of

Stellenbosch University https://scholar.sun.ac.za

assessment, a modified and adapted questionnaire was compiled, with questions also derived from a literature review on assessment.

Student and Lecturer perceptions

Student's perceptions of factors related to assessment that might impact on their potential success during their first year at the EATI were investigated empirically by means of a closed-ended questionnaire. From the questionnaire results, interpretations were derived regarding the students' perceptions of how assessment methods could impact on their success during their first year of study.

All students that were enrolled for the academic year of 2015 at the EATI were included in the study. This also included students that failed modules and were repeating these modules.

Data was collected by means of questionnaires distributed to lecturers and students (numbers determined by the amount of students registered for the particular modules in 2015). Respondents were requested to provide data with respect to their biographical characteristics, measured on a nominal scale. Data with respect to the topic under investigation was generated on a 4-point Likert scale, with 1 indicating strong disagreement with a statement, and 4 indicating strong agreement with a particular statement.

The main dimensions covered by the student survey focussed on:

A Students understanding of assessment terms (such as formative and summative assessment) and whether students were aware of an assessment policy in existence at EATI,

B Feedback. Student's perceptions regarding feedback. Whether students received feedback; if the feedback was useful enough to help students focus on areas of improvement; whether feedback and assessments lead to a deep approach to learning.

C Students' perceptions of the relative excessive weight of the examination's contribution to their final mark.

Stellenbosch University https://scholar.sun.ac.za

D This section was created for students to focus on their most successful module and used the same statements of the questionnaire for one particular module.

The main dimensions covered by the staff survey focussed on whether staff:

- were aware of any assessment policy at EATI,
- were familiar with the terms ‘formative’ and ‘summative’ assessment,
- used formative assessments in their modules,
- provided feedback to students after an assessment event,
- saw themselves as providing support for students at EATI,
- considered other factors than assessment to impact on first year success,
- were of the opinion that students needed extra help in passing exams in the form of formative assessment, tutorials or outlines for examinations,
- used tools to evaluate assessment tasks,
- were of the opinion that an improved use of formative assessments was required to adequately prepare students for summative assessments
- were of the opinion that an improved use of formative assessments was required to encourage student learning and
- provided feedback after assessment events.

1.6.4.2 Sampling

The advantages of a survey design include savings of time and money, a lack of interviewer bias, accurate results, more privacy for participants and the fact that samples need to be large in relation to the population (Salkind 1997).

Due to a relatively small population size and target group in this study, the sample size included all first year students on the B.Agric and Higher Certificate programmes. A total of 100 questionnaires were distributed to the first year students at EATI and 81 questionnaires were returned. Sekaran and Bougie (2011) maintain that any sample larger than 30 but less than 500 could be considered appropriate, with a 30 percent (%) response rate being considered acceptable for most research endeavours.

Stellenbosch University https://scholar.sun.ac.za

Since the EATI is a relatively small institute, only nine lecturers present modules to first year students. Questionnaires were electronically distributed to all nine lecturers and eight questionnaires were returned. Validity is established if the instrument used, actually provides a measure of what it sets out to measure (Kember and Leung, 2008). In the case of this research, the questions for the questionnaires were adapted from various questionnaires as reported in Chapter 3 to help answer the main research question. To help ensure that the questionnaire and information obtained were valid the researcher used face validity (Kember and Leung, 2008) in which the wording of items on a scale makes some reference to what is being measured.

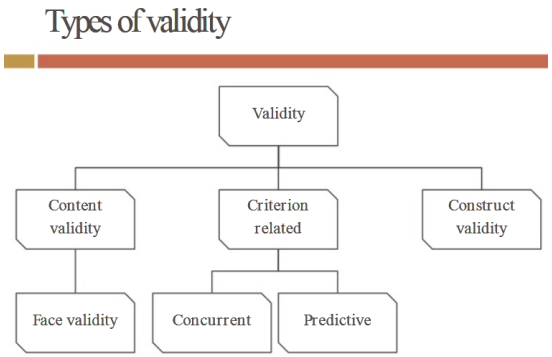
The question around validity in terms of this body of research was mainly to ensure the following questions were answered:

- Is the research providing answers to the research and sub-questions that inspired this research?
- And if so, is it providing the answers by using appropriate methods and procedures? (Kember and Leung, 2008).

Using these guidelines, it is hoped that the questions of the Who and the How are addressed.

There are also a number of types of validity to help researchers provide credibility to their research (Figure 1.1)

Figure 1.1: Different types of validity.



(Kember and Leung, 2008)

To further enhance the validity and reliability of the study the researcher ensured that the process was transparent and that a systematic approach to the data collection was followed and documenting the collection and flow of data. A statistical package was also used to determine the level of reliability of the collected data. A detailed discussion is contained in Chapter 4.

Stellenbosch University https://scholar.sun.ac.za

1.6.4.3 Data analysis

Basic content analysis of the respondents' answers to the open ended questions was employed to identify main categories and themes from the answers. The compiled questionnaire was based on a review of literature on assessment, student learning and success rates (Brown et al., 1997; Greer, 2001; Trotter, 2006) as well as a conceptual framework that integrates the literature review and personal insights, experiences and perspectives, adapting available questionnaires, where appropriate and available. This added to the content validity of the questionnaire.

1.6.4.4 Validity

Validity and reliability are important as it is the two criteria most widely used to determine whether or not an instrument is usable (Kember and Leung, 2008). Heale and Twycross (2015) also stated that validity is defined as the extent to which a concept is accurately measured in a quantitative study.

To ensure that the questionnaires for the students met the criterion of validity, the questions were designed to measure the perception amongst first year students regarding the potential influence that the assessment practices at EATI have on their own academic performances. Similar questions were posed in the staff questionnaire but it also included a qualitative section because staff was considered to be more capable of critical thinking around their perceptions regarding the potential impact of assessment methods on student performance.

Further steps that to ensure validity of especially the student questionnaires, were the use of the criteria stated by Radhakrishna (2007):

- Is the questionnaire valid? In other words, did the questionnaire measure what it intended to measure?
- Does it represent the content?
- Is it appropriate for the sample/population?
- Is the questionnaire comprehensive enough to collect all the information needed to address the purpose and goals of the study?
- Does the instrument look like a questionnaire?

Stellenbosch University https://scholar.sun.ac.za

Validity of the data was further ensured by trying to ensure that as high a number as possible of questionnaires were returned by all respondents as it was deemed that too few respondents would lower the validity and reliability of the results obtained. However, pre-testing the survey with a select group was not performed and it is acknowledged that this could slightly compromise issues like validity and reliability.
Taking all of the abovementioned measures into account it was envisaged that the questions posed in the questionnaires would with some degree of accuracy help in answering the main research question of “What are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province”.

1.7 ETHICS

The ethical considerations with regard to this study are discussed in detail in Chapter 4. The prescribed ethical clearance processes of the Stellenbosch University were followed before the study commenced. The research proposal was presented to the Faculty of Education’s ethics committee after which adjustments were made based on their recommendations. The research proposal was then submitted to the Ethics Committee for Human and Social Sciences at Stellenbosch University for approval. All documentation related to conducting the study in an ethical manner is attached as addendums at the end of the thesis. Participants were urged to complete each section of the questionnaire. However, where the respondents did not feel comfortable in responding to the voluntary request to complete the questionnaire, they were informed about the anonymity aspect so as to encourage the most responses as possible for the purpose of the study. Weekly follow-ups were made with the respondents to encourage submission and to deal with any questions that could be addressed with an aim for a high return success rate.

1.8 CONCLUSION

This chapter outlined the purpose of this study as well as inputs. It highlighted the research question and the sub-questions as well as the tools utilised to ensure valid and trustworthy answers to be explored and act upon.

In the next chapter a contextual overview is given of EATI as an Agricultural Training Institution. Chapter 3 reports on relevant literature which was explored to form the

Stellenbosch University https://scholar.sun.ac.za

theoretical basis of this study. Chapter 4 discusses the research design and methodology and Chapter 5 provides the results of the data that were generated and the discussion thereof. Finally, in Chapter 6, some conclusions are drawn from the results and some implications related to the findings of the study are highlighted.

Stellenbosch University https://scholar.sun.ac.za

CHAPTER TWO

CONTEXTUALISING THE STUDY

2.1 INTRODUCTION

Elsenburg Agricultural Training Institute (EATI), which was the chosen research site for this study, is an accredited agricultural college that currently falls under the auspices of the Western Cape Department of Agriculture, though at present there is political indecision as to whether it should fall under the Department of Higher Education and Training. Many of the lecturers at EATI do not have formal training as teachers or even the qualifications of mainstream teachers. Most of the staff has, however, completed assessor and moderators courses to deal with Outcomes Based Education. Though these academics are experts in their chosen fields, they are also expected to become experts in education plus the pedagogy that is associated with the field of teaching.

Currently there are 11 accredited agricultural colleges in South Africa that offer agricultural specific qualifications within the National Qualifications Framework (NQF) which are coordinated by the Council of Higher Education. These colleges of Agriculture are Cedara, Fort Cox, Glen, Grootfontein, Madzinvandila, Owen Sithole, Potchefstroom, Taung, Tompi Seleka and Tsolo.

This chapter provides background on EATI as an agricultural training institute, the programmes offered by the institution and the teaching and learning as well as assessment policies the institute employs. It also puts into context the reasons for the need to highlight and explore student and staff perceptions regarding the possible impact of assessment strategies on student's success.

Research (Dropout rates in the united states, 1999) has shown that students with good degrees or high levels of education are more likely to be employed and paid a higher salary notch than those with lower academic success. Therefore, investigating factors that could potentially impact on students' success is important because it has an impact on the type of career (with the satisfactory wages) the students would have,

Stellenbosch University https://scholar.sun.ac.za

but also the higher levels of education to tackle the technologically demanding occupations the working students would need in the future (Brown, 1999). Combine this with the fact that Fleetwood and Shelley (2000), and Rentner and Kober, (2001) indicated that the quantity of jobs demanding a university education is predicted to increase more than twice as fast as those not demanding a university education by the next ten to twenty years. They also noted that students who are academically successful would have more opportunities to choose their future jobs than those with less education.

2.2 GLOBAL CONTEXT OF ASSESSMENT AS IT RELATES TO STUDENT SUCCESS

Assessment is not only an important component of teaching but a very valid and frequently used tool to determine student success and gauge performance (Dhindsa, Omar, and Waldrip, 2007). Struyven, et al. (2006) argue, the impact of assessment is significantly observable on students' performance (whether they pass or fail a module). Many researchers and lecturers have found that involving students in assessment methods can add more value to the learning process and helps lecturers develop an authentic and realistic assessment approach that could lead to increased participation and higher pass rates amongst students (Dhindsa, et al., 2007; Falchikov, 2004).

Goodrum, Hackling and Rennie (2005) state that, ideally, assessment "enhances learning, provides feedback about student progress, builds self-confidence and self-esteem, and develops skills in evaluation" (p. 2). In addition, they argue that effective learning occurs when correspondence exists between teaching, evaluation, and results. Therefore, due to its close relation with instruction and learning outcomes, assessment has a key role in learning and hence student success rates.

Meyer, Davidson, McKenzie, Rees, Anderson, Fletcher, and Johnston (2010) posits the view that globally it is recognised that the functions and purposes of assessment fundamentally include:

- Feedback on learning (students and teachers)
- Measuring student learning for selection and progression decisions (students, teachers, institutions)

Stellenbosch University https://scholar.sun.ac.za

- Quality assurance and accountability issues (institution-wide responsibilities)

Trujillo (2007) realised that assessment can directly impact on student success. In this paper, the author pointed out that failure to change and adapt assessment tools and methods negatively impacted on student pass rates.

Meyer, Davidson, McKenzie, Rees, Anderson, Fletcher, and Johnston (2010) also mentioned the importance of the manageability and utility of assessments, what the authors refer to as the “nuts and bolts” of assessment. One of these issues is the use of assessment to track student progress (whether students are successful or not). This falls under the heading of assessment of learning where a grade (mark) is generated using either formative or summative assessment methods or events to ascertain whether students can move on to the next theme or level of education. Since many institutions use big summative events to help with the determination of student success, assessment **of** learning requires attention to the validity, reliability, utility, consistency, and equity of measures, grading and marking.

The above paper also highlighted the importance of a well aligned assessment policy so that both graduate attributes are met as well as the specific learning outcomes of the course, which will be represented by a mark to prove success. Therefore, it is important that for the purposes of this research, the meaning of academic or student success must be seen as a student obtaining a pass mark of 50% for a module that will allow them to pass the module. Although graduate attributes are vitally important, they will not be focussed on during this thesis to simplify the goal of the research question.

It is widely accepted (Benvenuti, 2010; Biggs, 2003; Boud, Cohen and Sampson, 1999; Brown, et al., 1997; Brown and Knight, 1994; Entwistle, 1997; Rowntree, 1987; 2015) and viewed that assessment tasks and practices determine (or at best strongly influence) what students learn, how they engage with course criteria and influence student success (passing or repeating subjects).

Benvenuti (2010), for example, conducted research at the University of the Witwatersrand (Wits) on assessment strategies where an evaluation of the

Stellenbosch University https://scholar.sun.ac.za

assessment tasks and course curriculum was conducted for the Information Systems course. This evaluation of the University's existing course assessment practices was conducted in response to interviews conducted by course lecturers that revealed issues of concerns where notably one was the low pass rates were noted in the Information Systems module.

Valid agricultural education programs make testing and learning assessment an ongoing part of training and an important ongoing part of students' preparation for the world of work in agricultural or related professions (James, McInnis, and Devlin, 2002; Kulieke, Bakker, Collins, Fennimore, Fine, Herman, ... and Tinzmann, 1990). Therefore, focussing assessment in agricultural education on students' needs, educators can align their human capital with the future of success in the students' chosen agricultural careers (Squire, 2010). It is in this way that assessment procedures provide the measures by which agricultural educators define success in the programs and the method by which they achieve it (Hennessy and McCormick, 1994).

The impact of "good" assessment and testing helps agricultural education programs to evolve and helps to propel the potential for the students being trained (Burger, 2004; Nickell, 1993; Squire, 2010). The importance of assessment is emphasised when one realises that the use of different and more innovative assessment strategies seem to become common place in many agricultural institutes (Burger, 2004). Some of these include authentic assessment, performance-based assessment, portfolio assessment, process assessment, exhibits, demonstrations and profiles. Each of these techniques has moved beyond the concept of measuring student learning using multiple choice and other simple tests as a single measure of student learning (Kulieke et al., 1990). Squire (2010) emphasised that an effective program to assess student academic achievement in agricultural education must flow from the institution's mission and educational purposes, which must be clearly stated.

The paper by Squire is a seminal article for assessment in agriculture as it stated in 2010 already that a successful academic program in Agriculture must:

Stellenbosch University https://scholar.sun.ac.za

- Have institution-wide support and use multiple testing measures, both qualitative as well as quantitative, rather than relying on one instrument or activity.
- Provide feedback to students; educators; parents; the institution
- Be cost effective, and sustainable.
- Not inhibit goals of access, equality and diversity established by the institution. Which is especially important for EATI as it embarks on a transformational program that will provide equitable education to all race groups and genders.
- Lead to improvement and be seen as a means rather than an end.
- Must include a process of evaluating the assessment program.

A study performed at the Botswana College of Agriculture (Squire, 2010) highlighted that the use of continuous assessment (CA) is a powerful diagnostic tool that enables students to understand the areas in which they are having problems and concentrate their efforts in those areas and thus lead to increased success rates amongst students. The results of the CA helped to ensure that all students in the program progressed in their learning throughout the semester or the academic year. That institute also does not allow the final examination to account for more than 50% of the students' final mark.

What is significant about the research paper by Squire (2010) is that the impact of assessment on student's success is definite and that there is no single "right" or "good" way to assess students' learning because assessment procedures and strategies in agricultural education programs are based on specific population characteristics and needs. However, what is required to meet the objectives of any form of assessment in agricultural education is to:

- Have a balanced curriculum that clearly specifies the assessment procedures and strategies
- Make assessment and testing procedures consistent with the objectives of the course
- Have a variety of tests to allow for a range of different learning outcomes to be assessed
- Set detailed, justifiable and transparent criteria for assessment

Stellenbosch University https://scholar.sun.ac.za

- Minimize the number of tests and assessment as too much assessment and testing may be counterproductive.

The Department of Agriculture in South Africa developed the Agricultural Education and Training (AET) Strategy in an attempt to improve agricultural production through the rendering of quality agricultural education and training services (Evaluation of agricultural education and training curricula in South Africa, 2008). The main objective of the study was to explore the AET curriculum in South Africa in order to develop and maintain an effective and well-coordinated AET that is integrated at all level and responds appropriately to South African agriculture.

The AET Strategy identified certain challenges that it aimed to address in order to ensure the provision of quality AET curricula. These critical challenges amongst others included:

- Lack of coordination and harmonisation of AET policy and curriculum.
- AET curricula that are not aligned to and responsive to the challenges facing agriculture in South Africa.

This study also highlighted that in the agricultural sector, especially amongst the Agricultural Training Institutes in South Africa, generic curricula do not exist for HET courses.

The colleges of Agriculture in South Africa have a peculiar position within the Agricultural Education and Training fraternity because of:

- Their positioning on the NQF. Though they are essentially viewed as Higher Education Institutions, the colleges offer programmes and curricula that include NQF levels 1-7 and as such have various accrediting bodies (The Higher Education Quality Committee of the Council on Higher Education as well as Umalusi and AgriSeta).
- Diversity of Agricultural Colleges. This is based on their target groups and the unique farming enterprizes found in the different agro-ecological regions where they are situated.
- Uncertainty regarding their future. The uncertainty of the transfer of Agricultural Colleges from the Department of Agriculture to the Department of Education

Stellenbosch University https://scholar.sun.ac.za

has left many of these institutions with reduced institutional capacity, diminishing morale, a drop in standards and a deteriorating infrastructure.

The impact of Assessment on student success has thus become such an important part of education in Agriculture that an entire magazine in the United States (The Agricultural Education Magazine) exists to unify the forces of agricultural education in the country; to serve as a means of exchanging professional news and views; a sounding board for new ideas and as a source of reviews of publications and research in the field.

Teachers of agriculture often teach the same way they were taught, usually through the use of lectures, demonstrations and laboratory work to disseminate information and then administer tests to assess learning (McMahon, 2000). Similarly, Muwumba (2014) revealed that inappropriate methods of assessment used by lecturers are a major factor that led to poor learners' performance.

Agricultural Education and Training (AET) in Africa has been designed towards improved, relevant and effective teaching, research and extension in the 21st century. Therefore, improving human capital in agriculture is important where the shortage of trained human resources is a major limiting factor to development (Lindley, Van Crowder, and Don, , 1996). It is not just the lack of access that still acts as a barrier to the delivery of good quality agricultural training in South Africa, but also the inconsistent pedagogy and assessment strategies used by institutions that provide this training.

2.3 CURRICULUM IN AGRICULTURE IN SOUTH AFRICA

The Cape Institute for Agricultural Training (Elsenburg) is no different than so many of the higher education institutions in South Africa. It is an institute which is rich in history and tradition, but also one which has had to adapt to the changes in political climate as well as to its changing student demography. These students have to be trained to create complex knowledge structures through a scaffolding approach and through practical training have to be ready to step into a career. In order to achieve this, it is important that an institute such as Elsenburg create programmes and curricula that

Stellenbosch University https://scholar.sun.ac.za

service both its student body and an industry that is becoming ever more demanding on the agricultural institutes, colleges and universities.

The issue of demand was made evident by Mayende (2014) in his editorial in AgrisetaConnect (November/ December 2014) where he also mentioned how the National Skills Development Strategy serves to guide the Agricultural Sector Education and Training Authority (AgriSeta) to lay emphasis on three key areas: the strengthening of the ties between the agricultural sector and TVET (Technical and Vocational Education and Training) institutions (formerly known as FET Colleges) and agricultural colleges, the stepping up of post-school upskilling of young people, and the empowerment of cooperatives through appropriate primary skills and also noted by Greenbaum and Rycroft (2014).

South Africa, especially after major political changes in 1994, faced a situation where more students who were previously denied access to higher education, were entering the higher education system. Consequently, the need arose for curricula and staff to be responsive to the variety of learning needs of a more diverse student population (Leibowitz, Van der Merwe and Van Schalkwyk, 2009).

Assessment in higher education and its impact on student success rates has taken on a new intensity in the face of students with an OBE background and since 2014 when Grade 12 learners wrote under the CAPS system, being thrown into an environment that may not be sensitive to assessing these students. Against this backdrop, it indeed seems as if the South African schooling system is producing students who do not easily succeed in higher education (Greenbaum and Rycroft, 2014; Nel et al., 2009; Palmer, Wood, Dancy and Strayhorn, 2014).

Also the overall number of students in agriculture has increased significantly (see Table 2.1). The number of students who applied has increased, as has the number of students who took longer to complete their studies (see Table 2.1). Table 2.2 shows the figures for the 2014/15 cycle.

Stellenbosch University https://scholar.sun.ac.za

Table 2.1: Performance indicators for Agriculture training at: 2012/2013.

Sub-programme 7: Higher Education and Training					
Performance Indicator	Actual Achievements 2011/12	Planned target 2012/13	Actual Achievement 2012/13	Deviation from planned target to actual achievement 2012/13	Comments on deviations
National Transversal Indicators					
Number of students registering for accredited Higher Education and Training (HET) qualifications	454	350	401	51	The number of students who applied has increased, as has the number of students who took longer to complete their studies.
Number of students completing accredited Higher Education and Training (HET) qualifications	128	70	140	70	The throughput in the final year is much higher than other years of study.

Stellenbosch University https://scholar.sun.ac.za

Table 2.2: Performance indicators for Agriculture training (at EATI: 2015/2016.

Sub-programme 7: Higher Education and Training					
Performance Indicator	Actual Achievements 2014/15	Planned target 2015/16	Actual Achievement 2015/16	Deviation from planned target to actual achievement 2015/16	Comments on deviations
National Transversal Indicators					
Number of students registering for accredited Higher Education and Training (HET) qualifications	442	410	481	71	The programme over performed due to the demand as well as an increased intake of day students. (Intake was previously dependent on the number of students needing accommodation).
Number of students completing accredited Higher Education and Training (HET) qualifications	138	110	103	7	The programme under-performed due to less than expected students graduating in December 2015. The student protests experienced during the second half of 2015 could be a contributing factor, as a number of students did not obtain access to the final exams and will have a prolonged study period.

At the same time, the ethnic and cultural mix of student bodies is changing and consequently, changes have to be made to curricula. In 2005, white students comprised 89% of enrolments, followed by Coloured students (11%) (Ross, 2015). Up to this point, very few African and Indian students were enrolled at EATI. The number of male students in 2005 was higher than females, at 87% compared to 13% respectively (Ross, 2015). In 2011, white students comprised 69% of enrolments, followed by Coloured students (19%) and the African and Indian students constituted

Stellenbosch University https://scholar.sun.ac.za

17% of students enrolled at EATI (Ross, 2015). The number of male students during the 2011 academic year was still higher than that of females, at 72% compared to 27% respectively (Ross, 2015). From the data provided, it is clear that EATI experienced a gradual increase in the enrolment of African, Coloured, and Indian students. A more diverse group of students was therefore enrolled between 2005 and 2011. There was also a gradual increase in the enrolment of female students from 2005 to 2011 with a decrease in the percentage of total male enrolments.

However, the question arises whether higher education institutions such as EATI are adequately prepared for the modern student? Fundamental to many first-year programmes is the role that student assessment plays upon entry to the university (Leibowitz et al., 2009). These authors also contend that staff go to great lengths to assess the abilities of entering college students and to place them in remedial courses or to provide special services based on the deficits discovered in the assessment process (Schreiner and Anderson, 2005). However, this support structure may not be in place at smaller higher education institutions such as EATI and therefore it becomes important that students are not only assessed early, but that the type of assessment used provides all students with the potential to be successful.

Troskie-de Bruin and Otto (2004) contend that many of the traditional student-centred teaching and assessment methods no longer serve the purposes of higher education, because these methods encourage the transmission of the lecturer's expert knowledge to passive students. Students have traditionally acquired the ability to anticipate what different lecturers require in order for them to be successful in a particular course; this has often led to the scenario where students would focus their efforts on memorising facts, without proper comprehension, in order to pass a series of tests and examinations. However, even rote learning seems to be problematic at a higher education institution such as EATI as students lack the ability to memorise and recall large amounts of information.

Troskie-de Bruin and Otto (2004) concluded that although assessment is only one of several factors influencing student performance, it plays an important role in determining the quality of student learning. Therefore, the nature of assessment should be such that it not only measures performance on all cognitive levels, but that

Stellenbosch University https://scholar.sun.ac.za

it also challenges those students who have the ability to excel, else they will under-achieve. However, getting institutions and indeed the academic staff from especially small institutions such as EATI to adapt assessment practices, might be a daunting task.

Friedrich-Nel, de Jager, Joubert and Nel (2003) realised that an outcomes-based education and training (OBET) approach is in contrast to the traditional educational approach according to which the instructional activities are centred on the lecturer. The new CAPS system in South African schooling, through its detailed assessment policy and strategy, has sought to correct this. The work of Friedrich-Nel and colleagues (2003) might provide some background to explore assessment options and potentially decide on the proper assessment tools. The OBET approach focuses on learning based on the end product (graduate attributes) with assessment standards linked to the outcomes to assess the progress of the learner throughout the learning process Friedrich-Nel, de Jager, Joubert and Nel (2003).

Leinster (2002) notes that other domains of learning have come to the fore, such as clinical and practical skills and competencies and although this might be important for students at an institution such as EATI, theoretical competence of students is also of great importance. Traditional learning assessment strategies are proving to be inadequate in testing competencies and skills (Gonczi, 1994; Hager and Gonczi, 1996a; 1996b); Lum, 1999). Therefore, this thesis proposes that assessment at Elsenburg has become pivotal in measuring the success of students. In trying to explore and answer this statement it is important to look at what an institute like EATI uses in terms of assessment and strategies used to assess student performance and success.

2.4 THE CONTEXT OF ELSENBURG AGRICULTURAL TRAINING INSTITUTE (EATI)

The following information was obtained from the EATI prospectus (see www.elsenburg.com):
On 1 September 1898 the Elsenburg College of Agriculture, the first of its kind in South Africa, opened its doors. Five students received their diplomas at the end of the first

Stellenbosch University https://scholar.sun.ac.za

academic year (June 1899). During the first fourteen years of its existence the average number of students was 44. During the First World War, however, there was a drastic reduction in applications, with only 8 students studying there in 1915.

In 1926 Elsenburg College of Agriculture and the Stellenbosch University amalgamated and a two-year diploma course was offered at Elsenburg, with the primary aim of training prospective farmers. In 1927 this course was replaced with a one-year course, which was replaced by practical courses in 1931. In 1939 the two-year diploma course was reinstated. Elsenburg's relationship of 47 years with the Stellenbosch University was severed in 1973 and the Department of Agriculture accepted responsibility for agricultural training at Elsenburg.

In 1994, with the transformation to a democratic political dispensation in South Africa, the Department of Agriculture: Western Cape was created. The Elsenburg and Kromme Rhee colleges of agriculture amalgamated. The amalgamation placed huge responsibility on the Department of Agriculture to continue and to expand the training offered.

The relationship with the Stellenbosch University was again initiated and since 2004 Elsenburg has been offering a B.Agric programme in association with the Stellenbosch University's Agriscience Faculty. This development is in line with the government's new academic policy to provide students in higher education more mobility between educational institutions. Duplication of programmes was also eliminated. Elsenburg College of Agriculture was renamed on 1 April 2004 to the Cape Institute for Agricultural Training: Elsenburg and is now currently named the Elsenburg Agricultural Training Institute (Taken from Elsenburg Prospectus compiled by Valentyn, 2011).

Currently, EATI presents two levels of training which are accredited and needs-driven. The two sub-programmes are Higher Education and Training (HET) and Further Education and Training (FET). HET offers the B.Agric, Higher Certificate, Diploma and Equine programmes. FET offers the learnership training and short skill courses.

Stellenbosch University https://scholar.sun.ac.za

For the purpose of this thesis the B.Agric and Higher Certificate programmes were used as the focus of investigation as the Diploma is not for first year students and Equine studies uses an international curriculum with a policy in place for assessment.

Personal experience at the Elsenburg agricultural institute also indicates that:

- Too many formative assessment events can be a disadvantage.
- Quality and quantity of teaching can be sacrificed.
- Shortage of time which will negate the purpose of formative assessments and prevent students from mastering a certain set of skills or acquire the knowledge for which the assessment was intended.
- Since formative assessments have low point scoring (or sometimes no grade value) students can see it as being unimportant and thus not invest the same interest or effort into the formative assessment.
- Lecturers or teachers need to be trained in the effective use and conceptualising of formative assessments. This can be particular problem in higher education institutes where staff are not trained in this aspect of education and made worse by high staff turnover as it not only takes time and resources to train staff but the impact on student learning (deep learning) can be detrimental (Gibbs, 1998; Higgins et al., 2010).

Therefore, at a small agricultural institute such as Elsenburg the above issues and questions cannot become the sole responsibility of academic staff that are already bogged down by large class numbers, heavy workloads that include marking and presenting of tutorials, extra classes and practicals, but management must put support structures in place to allow for policy development and implementation.

The niche market of the agricultural institute of learning also places it under pressure from very specific industries that require a myriad of skill sets that the institute has to find a way to assess effectively. These are great challenges and require skilled policy and curriculum developers. All of this needs to take place while an institute such as EATI is also undergoing transformation and moving away from a dual medium of instruction. As an institute, EATI can no longer just focus on what is taught but has to

Stellenbosch University https://scholar.sun.ac.za

look at how it is taught and more importantly assessing students in a way that they understand (Moll, 2004).

All first year students enrolled at EATI will either choose the B.Agric (Bachelor of Agriculture) or the HC (Higher Certificate in Agriculture) programmes. An overview of how these programmes are structure follows.

2.5 OVERVIEW OF THE B.AGRIC AND HIGHER CERTIFICATE PROGRAMMES

According to the EATI prospectus obtained on the website at www.elsenburg.com, the B.Agric degree is offered in collaboration with the Faculty of AgriSciences at Stellenbosch University (SU). New governmental legislation encourages institutional association that allows students to increase mobility between institutions.

Although the B.Agric programme is underwritten by SU, the entire curriculum is presented at Elsenburg using the Department of Agriculture's resources. All other Agricultural Colleges in South Africa (except for one, Fort Cox which resorts under the Department of Education) are governed by the provincial or national departments of Agriculture. Even though the B.Agric programme is an applied agricultural production and management field of study, it does allow students with the necessary scientific depth to fulfil the needs and challenges of modern agriculture (EATI, 2011). The Elsenburg prospectus lists the skills acquired during this course as "the ability to collect, integrate, interpret and apply knowledge and to use this information in problem-solving, effective communication with role players from various environments, sufficient skills to function as an agricultural scientist, either independently or as a member of a team" (EATI, 2011). It offers students the opportunity to specialise in the following fields: Plant production, animal production, plant and animal production, cellar technology, cellar management, extension and plant production and extension and animal production. Basic and support modules such as soil science, agribusiness management, agricultural engineering, biology, communication, computer literacy, natural resource management principles of agricultural science (maths and chemistry), entrepreneurship and crop protection form part of the programme. Each programme is offered over a period of three years and is registered at level 7 on the Higher Education Qualifications Framework (HEQF). An outline of the programme is set out in the B.Agric prospectus (see

Stellenbosch University https://scholar.sun.ac.za

www.elsenburg.com). The prospectus also highlights the broad learning outcomes for the programme which includes a specific set of skills, knowledge and attitudes.

From the above it emerges that specialised knowledge, expertise, production and management skills are required and passed on to the students, but it all happens without the presence of an explicit teaching and learning policy and an explicit assessment policy.

The Higher Certificate programme at Elsenburg is a qualification which is presented completely by EATI and not underwritten by any other organisation. It is accredited with the Council on Higher Education (CHE). This qualification constitutes a two-year study programme and is laid out as in Table 2.3. The main streams of study for this programme are: Animal production and Vegetables, Pomology and Viticulture, Animal production and Agronomy, Extension and Animal production, Extension and Agronomy and Vegetables, Extension and Viticulture and Extension and Pomology.

Table 2.3: First year study options for Higher Certificate students

FIRST YEAR

FIRST YEAR – STUDY OPTIONS			
ANIMAL PRODUCTION & VEGETABLES (A)	**POMOLOGY & VITICULTURE (B)**	**ANIMAL PRODUCTION & AGRONOMY (C)**	**EXTENSION & GROUP D or E or F or G**
(ABM) Agribusiness 110, 130 **(BIO)** Biology 110, 130 **(BLW)** Mathematics 110 **(VOL)** Extension 110 **(GRK)** Soil Science 110, 130 **(GWB)** Crop Protection 110 **(ING)** Agric Engineering 130 **(REK)** Computer practice 130 **(AGR)** Agronomy 130, **(AGR)** Vegetables 140 **(DPR)** Beef cattle 130, **(DPR)** Small stock science 140	**(ABM)** Agribusiness 110, 130 **(BIO)** Biology 110, 130 **(BLW)** Mathematics 110 **(VOL)** Extension 110 **(GRK)** Soil Science 110, 130 **(GWB)** Crop Protection 110 **(ING)** Agric Engineering 130 **(REK)** Computer practice 130 **(POM)** Pomology 130 **(WIB)** Viticulture 130	**(ABM)** Agribusiness 110, 130 **(BIO)** Biology 110, 130 **(BLW)** Mathematics 110 **(VOL)** Extension 110 **(GRK)** Soil Science 110, 130 **(GWB)** Crop Protection 110 **(ING)** Agric Engineering 130 **(REK)** Computer practice 130 **(AGR)** Agronomy 130 **(DPR)** Beef cattle 130, **(DPR)** Small stock science 140 **(DPR)** Animal Nutrition 150	**(ABM)** Agribusiness 110, 130 **(BIO)** Biology 110, 130 **(BLW)** Mathematics 110 **(VOL)** Extension 110, 130, 140 **(GRK)** Soil Science 110, 130 **(GWB)** Crop Protection 110 **(ING)** Agric Engineering 130 **(REK)** Computer practice 130 And 1 of the following groups **GROUP D** **(DPR)** Beef cattle 130, **(DPR)** Small stock science 140 **GROUP E** **(AGR)** Agronomy 130, **(AGR)** Vegetables 140 **GROUP F** **(WIB)** Viticulture 130 **GROUP G** **(POM)** Pomology 130
k = 125	k = 135	k = 130	k = 130 - 135

(The k indicates the total credit value of the subjects in each study field).

Stellenbosch University https://scholar.sun.ac.za

As previously mentioned the methods used for assessment of the modules are scheduled written tests, practical tests and continuous practical evaluation in the field (if and where applicable) as well as written examinations. The two scheduled tests are very frequently the only opportunity for students to take cognisance of their own learning and to do a SWOT analysis of their own progress. The examinations are the summative events that are used to provide information to lecturers and the institute about the relative success or failure rates of the course.

At EATI the theoretical component of almost all modules consist of two semester tests and one examination. The tests are used to test knowledge imparted to students that come from different themes and very few lecturers give the students formative assessments to prepare them for these tests. Lecturers are also encouraged to not give students a layout of the test and students end up sifting through stacks of notes to try and determine what they will be assessed on during these tests. This leads to students prioritising and picking which subjects they will study hard for and which they will sacrifice. This often relates to the credit load of the subjects with the higher credit bearing modules receiving more attention by the students. All modules presented at EATI fall under the six faculties and as a collective the EATI has no teaching and learning policy and no assessment policy as evident by communication received from the Sub-programme Director (see addendum A). Post-apartheid South Africa has undergone a number of changes in its education policy which also impacted on assessment strategies. A brief overview of these changes is presented below.

2.6 Assessment changes in post-apartheid South Africa

The implementation of Curriculum 2005 in South African Schools was a move from the National Curriculum Statement (NCS) to the Curriculum and Assessment Policy Statement (CAPS) (National Department of Basic Education, 2014, http://www.education.gov.za). CAPS was implemented to make the school curriculum more accessible to teachers by ensuring that every subject in every grade has a single, comprehensive and concise CAPS that provides details for educators on what must be taught and what and how assessment should take place. It must be noted that no such reform has taken place for EATI. This reformatting of the policy not only impacted schools but created the expectation that higher education institutions such as agricultural colleges in South Africa follow suit and have comprehensive assessment

Stellenbosch University https://scholar.sun.ac.za

policies in place. The Department of Basic Education also spends large sums of money and sufficient time to ensure educators are trained and competent assessors.

When looking at the theory which is behind the importance of assessment in student learning it is important to remember that it was Biggs (1999b) and Biggs and Tang (2007) who examined constructive alignment and the importance of coherence between all the elements of a curriculum including course purpose, outcomes, teaching methods and assessment methods. They realised the significance of ensuring something like the assessment approach and criteria can have a profound impact on student learning and ensure that the desired learning is achieved. Essentially this means that in an aligned system the assessment methods should be designed in a way that students are guided into the kind of learning the lecturer wants or indeed the objectives the lecturer wishes to achieve. EATI aims to train students to become life-long learners who are more responsible for their own learning. This should mean that the curriculum must be designed with student needs and market needs as a focus. However, the importance of a well aligned curriculum and validly assessed curriculum cannot be ignored and should be strengthened. It must be noted that in the 2016 academic year a structured tutorial program was launched at EATI. Tutorials were presented for Biology, Agricultural Business Management and Soil Science. However, there was a very low attendance number for all tutorials because these tutorials were not compulsory.

2.7 CONCLUSION

This chapter provided an overview of EATI and its assessment policy and methods, focussing on the B.Agric and Higher Certificate programmes. It is clear that there is a lack of direction provided to lecturers in terms of a teaching and learning policy and an assessment policy and it is not farfetched (as is evident by various literature sources) that this could have an impact on lecturers understanding and execution of well deemed and aligned assessments which in turn might have a negative impact on student pass rates at EATI. Throughput is an indication of how many students are passing and successfully completing their studies. Literature has indicated that assessment methods and policies is one of several factors that have an impact on student success at agricultural institutes. Therefore, this thesis seemed an appropriate project as a start to contribute to learning and teaching policy that incorporates

Stellenbosch University https://scholar.sun.ac.za

assessment methods and changes to help increase student throughput numbers and success rates as well as test the perceptions of students and staff regarding the perceived importance of assessment methods and its impact on student success. This is against the background of EATI which strives to create academically apt students as well as students who are practically trained and ready for the agricultural market.

What might also be mentioned is that EATI recently went through a language crisis where the use of English was proposed as the medium of instruction. In fact, the institute still only uses Afrikaans and English (with English the medium of instruction and Afrikaans speaking lecturers are able to assist students in this language) with no support for students who have other languages as their primary or home language. Therefore, the specific use of assessments at Elsenburg may unfairly disadvantage these students who might be non-natives speakers with language or cultural barriers to understanding the questions asked not to mention the students with slight learning disabilities and concentration disorders to name but a few. Therefore, the specific uses of assessments could very well give lecturers ample information, but the information may not be accurate and a true reflection of students ability. Many students that study at the institute are the children of subsistence or emerging farmers and have been in agriculture for their entire lives but their education background and the knowledge they have in place has always been done in their home language that may not be English or Afrikaans and one can imagine that a high stakes assessment or even formative assessment with no proper language support might not be a true reflection of the academic ability or knowledge of such a student.

This thesis aims at contextualising and questioning the use of assessment at EATI, as well as highlights the importance it has on the pass rates of first year students who move from a schooling system that has a completely different approach to examinations in terms of an emphasis on formative assessment and the use of continuous assessment. It thus highlights the importance of moving towards an assessment system that might serve to minimise the impact of ‘high stakes’ assessments (big tests and examinations) on student pass rates.

Stellenbosch University https://scholar.sun.ac.za

Chapter 3 will focus on literature related to the key concepts of the study as well as some background factors that indicate how changes in assessment strategies and methods could potentially impact on student success and pass rates.

Stellenbosch University https://scholar.sun.ac.za

CHAPTER THREE

THEORETICAL PERSPECTIVES

3.1 INTRODUCTION

Policy makers and educational leaders are apparently constantly seeking answers to the pressing question of how best to ensure that colleges and universities are effectively addressing their most critical responsibility, namely the education of undergraduate students (Hearn, 2006). This attention to student success reflects a growing sense that academic institutions such as agricultural colleges in South Africa have a role to play on a fiscal and demographic level which impacts the educational system as a whole.

A myriad of literature exists on transition and engagement in the first year of studies in higher education (Clark, 2012; Harvey, et al., 2006; Gall, Evans and Bellerose, 2000; Kuh, Kinzie, Buckley, Bridges and Hayek, 2006; Penn-Edwards, 2010). Some literature also highlights the importance of institutional, academic and social support for successful student transition and engagement with learning (Masters and Donnison, 2010; Wingate, 2007). The same authors further denote that successful engagement with learning is dependent on students dealing with new academic requirements (Clark, 2012).

Several studies have been conducted on the academic performance of students that enter institutions of higher education (Huysamen, 1993; Masitsa, 2004; Nair and Pillay, 2004). Masters and Donnison (2010) and Penn-Edwards (2010) further focussed on first year transition in higher education, assessment, and student approaches to learning. They proposed that assessment, as motivation for learning, is a critical stage in the first year transition. When scouring the literature to look for links between assessment practices and students' success (pass) rates it becomes clear that the terminology used to denote students' success differs from author to author. Hodges, Eames and Coll (2014) use the term 'student performance' to denote student success and state that assessment is very closely (intrinsically) linked to student learning and performance (performance culminating in passing or failing).

Stellenbosch University https://scholar.sun.ac.za

Though student success/performance could potentially be interpreted as anything from pass rates, time to graduation to job placement. For the purpose of this thesis student success would be used interchangeably with pass rates and would refer to a student who successfully completed a specific subject or module at EATI. Cuseo (2007) defines student success as a favourable or desired outcome and concludes that the most frequently cited indicators of student success in higher education include:

- Student retention (first year students enrol for the successive year)
- Educational attainment (students persist and obtain the qualification for which the enrolled.
- Academic achievement (students obtain satisfactory or superior levels of academic performance)
- Student's advancement (students proceed and succeed at subsequent educational levels).

For the purpose of this thesis, academic achievement is of particular importance as it is used to determine student pass rates / success.

Student's success rates are important when one considers that Higher Education South Africa (HESA) reported that 35% of first-years drop out after their first year.

Even though there are many factors that can potentially contribute to student success rates (particularly at first year level), the purpose of this thesis is to focus specifically on the perceptions of students and staff in terms of whether they see assessment practices as potentially impacting on student success rates (passing).

3.2 ASSESSMENT PRACTICES AND STUDENT SUCCESS

One major factor that has been investigated and implicated as influencing student success / pass rates in important ways is the assessment of learning. Numerous studies (Dhindsa, et al., 2007; Eley, 1992; Gibbs, 1993; Mukorera and Nyatanga, 2016; Prosser and Trigwell, 1999; Ramsden, 1992) have supported the link between assessment practices and learning strategies which include the cognitive activities and thought processes that students undertake when studying and use to enhance their chances of passing a learning unit or course. These studies have also shown that

Stellenbosch University https://scholar.sun.ac.za

different assessment methods encourage different learning strategies and it is widely accepted that when students focus on more complex cognitive and metacognitive processes, they are academically successful (Mukorera and Nyatanga, 2016; Pintrich, 1989; Pintrich, and deGroot, 1990). However, Hearn (2006) realised that the development of productive dialogue and the consequent implementation of effective policies and programs to improve rates of student's success are not easy matters. It must also be mentioned that when searching for literature on assessment methods and its impact on students' success the terminology that different authors use to describe student success can be very inconsistent.

Assessment (sometimes even referred to as evaluation in American literature), in its broadest sense can be defined as the gathering of information that is used to judge the functioning and success of students, staff and institutions of higher education (Astin, 2012; Dhindsa, et al., 2007; Struyven, et al., 2006; Van Gaal and de Ridder, 2013). Regardless of the format of the gathered information assessment used in its holistic and fundamental form by Astin (2012) has the basic motive/use of improving the functioning of the institutions and its people. Where functioning refers to the facilitation of student learning and development and to advance the frontiers of knowledge.

Therefore, one can ascertain that evaluating academic programmes and how well students perform has implications for 1.) An institute as a whole (policy) as well as an implication for the 2.) Lecturer and students (the impact of assessment methods and practices on pass rates).

Van Gaal and de Ridder (2013) narrowed assessment down to assessment tasks which are given during a course and which partly determine the final result of the student while Struyven, et al. (2006), argued the impact of assessment is significantly observable on students' performance. It is generally accepted and various sources (Gibbs, 1999; Scouller, 1998; Van Gaal and de Ridder, 2013) have pointed out that assessment has a significant effect on teaching and learning as well as student success. It has the benefit of showing students what they should be learning during educational processes (Biggs, 1996) and its role in teaching and learning is becoming more and more prominent in higher education (Ramsden, 2003; Stobart, 2008).

Stellenbosch University https://scholar.sun.ac.za

Literature on assessment is prolific, not least of all its impact on future performance and success rates of students (Black and William, 2009; Brown and Race, 2012; Gardner, 2009; Pokorny and Pickford, 2010; Race, 2014; Rust, 2002; Sadler, 2010; Taras and Davies, 2013). Regarding approaches towards 'deep' learning, Davidson (2002) shows that there is a significant relationship between study performance and a deep study or learning approach while this also leads to a more actively involved student. The more engaged students are the more they are postulated to participate in class and this ultimately leads to a better understanding of the course which then has a concomitant impact on greater success (pass) rates (Dooey and Oliver, 2002; Kuh et al., 2006). Thus increased participation, motivation and engagement are directly linked to increased student performance and success.

Linked closely to the issue of assessment methods is the issue of feedback. Feedback has been shown to have a positive impact on student pass rates especially when it is timely, accurate and realistic in terms of what is achievable (Van Gaal and de Ridder, 2013). It is under these conditions that feedback of a specific assessment leads to improved results (Boud, 1995; Brown et al., 1997; Winne, 2010).

Electronic assessments have also emerged and it has been shown that their use can result in even greater advantages because students might be motivated by the use of information and communication technology (ICT) (Marriot and Lau, 2008). Potter and Johnston (2006) showed this as well when they found that the use of ICT improves academic performance. Though this statement has been disproved by other authors (Adrangi, 1989; Kennelly, Considine, and Flannery, , 2011) it is clear that the use of ICT increases student effort and engagement and results in higher completion rates (Marriot and Lau, 2008). Van Gaal and de Ridder (2013) concluded that when they consulted various literature sources, assessment methods have a positive impact on the examination results of students. Their empirical work concluded that students prefer assessment tasks to examinations and that students have better grades when assessment tasks are used instead of only a classical examination.

Interestingly Bridges, Cooper, Evanson, Haines, Jenkins, Scurry, and Yorke (2002). found that assessment grades (the use of several formative assessments or simply an increase in smaller assessment types) were higher than actual examination grades for six subjects at four different universities. Gibbs and Lucas (1997) looked are different

Stellenbosch University https://scholar.sun.ac.za

methods of evaluation and concluded that evaluations that consist of assessments only resulted in 3.5% higher marks than evaluations that consisted of examinations alone. Gijbels, Van de Watering, Dochy, & Van den Bossche, 2005). concluded that the use of assessment tasks (formative assessments and smaller summative assessments) resulted in higher examination scores.

The first-year experience and its relation to assessment in higher education has been the topic of research and comment in English-language academic publications in the UK and worldwide for more than forty years (Harvey, et al., 2006). These authors have also noted that the increasing concern with the first year experience is simply because higher education has become more accessible to people and with this; institutions have had to contend with providing support to a more diverse student intake and population.

The importance of determining how well students fair, particularly in their first year of tertiary education, has received increasing attention since the early 1980s (Hunter, 2016). Hunter also notes that student success is not only measured by pass rates but also by student retention and student throughput. The author also noted that student success can be defined depending on the perspective one chooses to use. These perspectives could be from the student, the lecturer, the institute itself or the industry that depends on the workforce created by institutions of higher education. Upcraft, Gardner and Barefoot (2004) suggest that first-year students succeed when they make progress toward developing academic and intellectual competence and the one way in which institutions like EATI measure student competence is whether they can successfully pass a summative assessment like a big test or examination.

There have been many attempts to predict the success of students in their first year (and beyond) (Harvey, et al., 2006). Most of the research tries to identify a simple determining factor of first-year performance. The literature suggests that secondary school grades and special tests do not closely relate to first-year performance in general. Prior knowledge or expertise in a subject and grades achieved in the early part of the first year are indicators of success but only in combination with other variables (Harvey, et al., 2006). In the view of these authors, the results of previous assessments at all stages are the best predictor of subsequent results.

Stellenbosch University https://scholar.sun.ac.za

Brown, Race and Rust (1995) proffer the view that the most important thing teachers do for their students is assessing their performance, a sentiment which was echoed by Ellington (1999). These authors both placed emphasis on the importance of assessment in learning. Thus it is clear that the term assessment is generally used to describe a set of processes that measures the outcome of students' learning (Trotter, 2006) and it is by altering the method of assessment that students' learning could potentially be improved (Brown et al., 1997; Eley, 1992; Gibbs, 1993; Greer, 2001; Ramsden, 1992; Prosser and Trigwell, 1999).

Trends such as globalisation and trade liberalisation, rapid advancement of technologies, population growth and urbanisation have all had significant impacts on agriculture in sub-Saharan Africa (Squire, 2010; Vandenbosch, 2006). This situation has placed pressure on Agricultural Colleges in Africa to play crucial roles as it is expected from these institutions to provide skilled and competent students for a demand-driven and market-driven agricultural sector.

In Ethiopia, the assessment of students' progress at secondary school level is considered the most important evaluation exercise carried out in the Agricultural Technical and Vocational Education (ATVET) colleges (Vandenbosch, 2006). They utilise a system of continuous assessment as it allows for timeous correction of results to ensure higher pass rates.

Assessment has and always will be a challenging balancing act between firstly, validity and reliability; secondly scale and feasibility, and thirdly: impact on student success rates (Benvenuti, 2010).

At EATI we perform assessment in many forms and use it to assess student performance with the idea of providing feedback. This process hopefully leads to improvement of student results and thus performance levels for the entire institute. The following section will deal with the reasons and importance that assessment plays at any institute of higher education and especially at EATI.

Stellenbosch University https://scholar.sun.ac.za

3.3 CONCEPTUALISING ASSESSMENT

Universally, assessment methods and techniques are changing as the nature of teaching and learning in education change and teachers, lecturers and facilitators mostly agree that assessment influences all aspects of students' education (Brown et al., 1997; Gibbs, 2006).

The student population in many countries is becoming diverse, with increasing numbers of part-time students, mature students and students coming from non-traditional backgrounds where there is a political imperative to widen participation to students from socioeconomic groups who previously had little or no access to higher education (Brown, 2004). Although Brown's article referred to the emerging situation in the UK, this scenario holds especially true for South Africa. Especially when one considers recent issues at many tertiary institutions regarding the slow speed of transformation relating to language and curriculum issues,Stellenbosch University and Elsenburg College were under pressure, as were other similar institutions elsewhere.

The manner in which the assessment of learning is used to determine whether students are ready for examinations or, ultimately, for the real world, cannot be underestimated. Students tend to learn in the way they think they will be assessed (Bezuidenhout and Alt, 2011). McGhie, Van der Walt, and Van Schalkwyk, (2012) cited others who realise that the support and academic development of first-year students in higher education is a worldwide concern and particularly so in the South African context. At the heart of any curriculum, are skills and competencies that students leave an educational institution with. In this sense the AgriSeta newsletter (AgrisetaConnect, 2014) states that the availability of skills and competencies within the South African workforce remains pivotal to the sustainability of the projected growth of the South African economy. The learning approach of a student is almost inevitably linked to the assessment practices they are exposed to at tertiary level and ultimately translates into the product delivered to the workforce.

The above mentioned issues, coupled with anecdotal evidence from students prompted the research scenario for this thesis and the remainder of this chapter deals with some of the literature regarding assessment practices and the influence it has on student learning in the South African context - specifically as it relates to EATI.

Stellenbosch University https://scholar.sun.ac.za

The learning approach of a student is a critical determinant of success (Kasonga and Corbett, 2008). Kotze (2002, p. 76) explored issues relating to the adaptation and processes involved in setting up of assessment practices and stated “we can achieve this by the way in which we assess learners”. Kotze further stated that assessment poses greater mental demands on learners as learners are required not only to have knowledge of certain fields of content, but also to be able to understand, apply and demonstrate skills in these fields where learners’ thought processes are challenged greatly and where this impacts directly on assessment.

The importance of assessing students is further echoed by Sayigh (2006, p. 160) who surmises that “the need to train and qualify assessors of students’ learning remains important because of the emphasis placed on assessment by the Higher Education Quality Committee (HEQC) in its ‘Criteria for Institutional Audits’” and the problem of training lecturers as assessors in higher education. In an ideal world, students would arrive at an institution of higher education where they have been built up from a complete lack of competence to a level of basic competence and lecturers would be allowed to see them to a level of complete competence (de Vos, 2011; Glaser, 1963).

Broadfoot (1995) recognised that assessment has emerged in the new learning society to determine the achievements of learners. At EATI the assessment process and assessment methods are used to collect the required evidence if the learner is competent. However, in the absence of any official assessment policy or document with guidelines, lecturers are left to their own device especially in terms of the formatives they use to build up knowledge of students (as is the case at Elsenburg). If the assessment practices applied at secondary level are remarkably different from the assessment practices at tertiary level, lecturers 1) have a very small window to retrain students and 2) students are set up in a situation where it becomes very difficult for these first year students to be successful.

Troskie-de Bruin and Otto (2004) postulated that we can influence what and how our students learn by the way we assess them. They maintain that rote learning does not challenge students to understand the information and underlying principles contained in the learning material and this is supported by informal discussions with lecturers at EATI. The lack of an assessment policy at Elsenburg, especially in terms of guiding formative assessment, may on strength of the abovementioned arguments, contribute

Stellenbosch University https://scholar.sun.ac.za

to the reinforcement of a surface approach to learning which encourages students that can regurgitate and memorise information to do well while “thinkers” or students with a deep approach to learning are not catered for.

Sato, Wei and Darling-Hammond (2008)) indicated that educators, researchers, and policy makers were increasingly interested in identifying practices that contribute to improved student learning, performance, and achievement. Also, Black and William (1998) reported consistent learning gains for students when teachers use assessment practices that support learning. This was echoed by Troskie-de Bruin and Otto (2004) and Entwistle and Tait (1990) when they surmised that assessment practices can become powerful tools with which to shape students’ approaches to learning. They contended that lecturers and facilitators can influence what and how students learn by the way they are assessed.

Assessment thus seems to be at the heart of the student experience (Brown and Knight, 1994) and defines what students regard as important, how they spend their time and how they come to see themselves as students and then as graduates. This prompted Brown et al. (1997) to state that we could potentially change student learning by changing the methods of assessment.

Louw (2005) in his doctoral thesis on student retention in an agriculture college recommended that such institutions develop suitable assessment tools which could be used as part of early assessment. This could help to assess students’ basic knowledge so as to identify gaps in knowledge that might exist and that could negatively impact on their studies at an institute like EATI. This further highlights the importance of pre-learning assessment or having a fully comprehensive assessment strategy or policy in place to further support student learning and guide both students and academics.

A question that emerges is what a working or functional definition of the concept of assessment might be within the context of this study, which will be addressed next.

Stellenbosch University https://scholar.sun.ac.za

3.4 DEFINING ASSESSMENT

Assessment plays a key role in determining the quality of student learning (Sadler, 2005) and over the years it seems assessment has changed from a method to grade students to a tool that encourages critical interaction and a deeper approach to learning.

Various authors have defined assessment over the years (Bayaga and Wadesango, 2013; Bell and Cowie, 2000; Boud and Falchikov, 2006; Perie, Marion and Gong, 2007; Suski, 2004). Suski (2004) defined it as an ongoing process whereby outcomes for student learning are formulated, learning opportunities are created to enable students to achieve these outcomes, evidence is collected, analysed and interpreted to determine the extent to which the outcomes have been achieved and the information that has been collected is used to improve student learning.

Perie, et al. (2007) argued that a definition for assessment is governed by clarifying the purpose of the assessment. They critically looked at the use of formative assessments and how it relates to summative assessment and from their perspective, formative assessment is defined as assessment used by teachers and students to adjust teaching and learning, as compared to interim assessment that informs policymakers or educators at the classroom, school, or district level. Their article dictated that defining assessments in this fashion leaves a great deal of confusion for those trying to publish or consume assessment literature because one assessment could be used by students and teachers to inform the learning process as well as by administrators to create policy changes. Moreover, they contended, a great deal of assessment literature is aimed at delineating between formative and summative assessment, yet summative assessment can be used for formative purposes as mentioned by Bell and Cowie (2000) who also acknowledged that the purpose for which any assessment is developed and validated is an important aspect of assessment.

In a South African context, the Department of Basic Education (2010, p. 101, as highlighted in Bayaga and Wadesango, 2013) provides the following definition for assessment: "… assessment is a continuous planned process of identifying, gathering and interpreting information about the performance of learners…. It involves four steps: generating and collecting evidence of achievement; evaluating this evidence;

Stellenbosch University https://scholar.sun.ac.za

recording the findings; and using this information to understand and thereby assist the learners' development in order to improve the process of learning and teaching". It is this latter definition that is adhered to as a working definition for this study. Therefore, it is important to briefly look at the reasons behind assessment at any institute.

3.5 REASONS FOR AND AIMS OF ASSESSMENT

According to Boud and Falchikov (2006), assessment in higher education is commonly held to contribute to feedback to students on their learning and the certification of their achievement. They realised it must equip students to be able to learn beyond and after their studies when the infrastructure of teachers, courses and formal assessment is no longer available.

Crisp (2012) indicated that many teachers are aware that they must prepare a variety of assessment tasks for students of which the two most common types are formative (which is designed to mostly improve learning) and summative, which is designed to judge learning. Educators who strive to bring authentic learning experiences to their students must devise appropriate and meaningful measures to assess student learning and mastery of concepts at hand (Lombardi, 2008).

Boud and Falchikov (2006) also state that a range of factors contribute to role players and assessment experts asking for new methods of assessment that challenge educators and learners to focus on knowledge that can be applied in real-world situations. Some of the factors they listed include economic conditions, new scholarship on learning, and a student population with new expectations of educational institutions.

Lombardi (2008) stipulated that traditional models of assessment can exacerbate the problem by delaying development of independent thinking and that the typical structure of lectures and exams may simply prolong the time during which a learner continues to think like a student rather than an apprentice practitioner. The same article also questioned whether this approach underserves students in an increasingly fast-paced, information-intensive, and entrepreneurial age where contextual learning skills, just-in-time problem-solving and personal adaptability are essential.

Stellenbosch University https://scholar.sun.ac.za

Goodrum et al. (2005) postulated that one of the reasons teachers perform assessments is that they are aware that they must prepare a variety of assessment tasks for students to test knowledge and learning (Brown, et al., 1997; Brown and Knight, 1994; Boud, Cohen and Sampson, 1999; Crisp, 2012; Davidson and McKenzie, 2009; Entwistle, 1997; Rowntree, 1987). This body of literature and many subsequent articles highlighted the use of the two most common types of assessments by educators which is formative (which is designed to mostly improve learning) and summative (which is designed to judge learning).

Lombardi (2008) and Squire (2010) mention that educators frequently indicate that the reason they assess is to strive to bring authentic learning experiences to their students. They thus devise appropriate and meaningful measures to assess student learning and mastery of concepts at hand. It is this mastery of concepts that is a vitally important notion as such mastery is marked and graded and ultimately determines whether students pass or fail.

Another reason for assessment or rather a change in assessment tactics mentioned by Lombardi (2008) is that learners want to be seen as part of 'the architects of the course'. They not only want to know the criteria by which they will be judged, but they also want processes in place to help them improve and develop, guided by clear, practical and specific feedback. These consumer learners are demanding increased transparency from instructors. They desire to understand the instructor's thinking process, asking why the course was designed in this fashion, what the instructor is trying to accomplish, why the learning activities are relevant, and what the criteria are for judging student success. This was echoed by Brown (2004) when she wrote students have to participate in the assessment processes that are designed and implemented. Brown's thinking has a bearing towards this study especially when it is contextualised in terms of EATI as it sometimes seems like lecturers at many institutions have forgotten why they are assessing students.

The aim of assessment, according to Bezuidenhout and Alt (2011), is to determine the extent to which learning outcomes have been achieved, based on assessment criteria. Bezuidenhout (2007) mentioned that lecturers include the following when they provide reasons for doing assessments:

- To determine what students know, understand and can do.

Stellenbosch University https://scholar.sun.ac.za

- To inform students of weaknesses in their performances and how to improve
- To illustrate to them their progress and to ensure that a proper standard has been achieved before they progress to the next level
- To provide a means for certification regarding the standard of performance
- To serve as a promotion technique
- To highlight to students, areas of importance in the learning material
- To serve as motivation for students
- To measure the effectiveness of teaching: thus serving as leverage for improvement in education.

Brown et al. (1997), Brown and Smith (1999), Biggs (1999a) and Trotter (2006) also highlighted the following reasons and aims for assessing student learning:

- To provide feedback to students to improve their learning
- To give the teacher feedback on how effective and successful they are at promoting learning
- To motivate students
- To enable students to correct errors and remedy deficiencies
- To consolidate student learning, and
- To convey to students what they should be able to know and do.

Therefore, it is believed that assessment is an invaluable tool to determine whether students have learnt and are ready to progress to the next level of learning or to move forward in their studies. However, the assessment tools and practices must be:

- Fair on students
- Aligned with the specific module
- And must take into account the core knowledge of the student body as well as the schooling background of the majority of the students.

This takes time and effort from the lecturer and any institution must provide enough incentive for the academics to make the time available to evolve with the student body.

Stellenbosch University https://scholar.sun.ac.za

3.6 APPROACHES TO ASSESSMENT

3.6.1 Traditional approaches to assessment

Lai, Tang and Taylor (1997) offered the view that a teacher is to be in control of the pace and content of lessons and to be the purveyor of truth and knowledge. In the past this has led to students simply trying to desperately retain information which they deemed important if they wanted to pass a subject (rote learning). The only skill really mastered by using this way of learning would be to test a student's ability to memorise large amounts of information or how much information students can manage to store and access successfully.

Lai et al. (1997), however, rightly pointed out that the learner in a contemporary learning environment is far more active a participant than in the past while Geyser (2004, p. 90) pointed out that assessment has been "almost completely summative, with a final explanation and the educator acting as the judge". Geyser further noted that traditional assessments targeted a learner's ability to prove they have acquired knowledge. This might encourage a surface approach to learning as opposed to deep approach. Depending heavily on this style of assessment has encouraged only surface approaches to learning which is then rewarded (Biggs, 1999b; Biggs and Tang, 2007; Sutherland and Peckman 1998).

3.6.2 Learner-centred approaches

To ensure that assessment is part of the learning process, it should be learner-centred and should reflect a learner-centred curriculum (Brown, 2004). West and Saunders (2006) recognised that there was a trend in accounting education to shift from the then existing traditional teacher-centred approach to a learner-centred approach (West and Saunders, 2006). This important shift towards learner centred learning was also highlighted by a number of authors (Coetzee and Schmulian, 2011; de Wet and Van Niekerk, 2001; Kastantin and Novicevic, 2008; Koma, 2009).

West and Saunders (2006) even asserted that a learner-centred approach is where educators act as facilitators who assist learners in the learning process. Instructor and teachers should not be viewed as experts whose job it is to impart information to willing and very frequently, unwilling audiences but rather the creators of an environment or culture where learners are free to learn and also take responsibility for their learning.

Stellenbosch University https://scholar.sun.ac.za

According to de Wet and Van Niekerk (2001) this can then lead to many innovative ideas by teachers to make use of computer assisted learning, developing learner-centred material and the restructuring of the classroom situation.

In 2004 the Central University of Technology (CUT) described a learner-centred approach as an approach where learning, curriculum design, instruction and assessment are geared towards ensuring the students are able to successfully meet the requirements of the curriculum. Their curriculum is designed to enable learners to achieve learning outcomes that are clearly formulated and apparent while students are also made aware that there are several opportunities for them to demonstrate that learning has taken place. All of this obviously needs to be planned for in a systematic and organised way. The CUT description of learner-centeredness bears a resemblance to the principles of outcomes-based education (OBE).

Several authors (Coetzee and Schmulian, 2011; de Wet and Van Niekerk, 2001; Kastantin and Novicevic, 2008; Koma, 2009) have suggested that helping and guiding students in this way and making them aware of their learning styles can help them develop better study habits. Koma's (2009) article also highlighted the great benefit of a learner–centred approach as it will help teachers to incorporate the learning styles of their students into their lesson plans. This also goes a long way towards removing barriers of learning as not all students are equal and assessment practices can thus play an important role in ensuring that students with different abilities are included in the learning process as some students learn better by: auditory means (learning best through hearing), visual means (learning best through seeing), and kinaesthetic (learning best when concepts are more hands-on).

Koma (2009) further highlighted other benefits of following a student-centred approach to assessment practices which include:

• Students are not considered to be empty vessels. They come with their own perceptual frameworks.

• Focus is not just on what is taught but on how effective learning should be promoted.

• Student learning becomes the main preoccupation of the teacher (not his/her performance as a teacher or a raw number of facts to be transmitted to the students).

Stellenbosch University https://scholar.sun.ac.za

• It is recognized that students learn in different ways and have different learning styles. Personalised/individualised responses are encouraged which helps to foster creativity in students.

• Learning is recognized as an active dynamic process in which connections (between different facts, ideas and processes) are constantly changing and their structure is continually reformatted. Such connections are fostered through dialogue between teacher and students, and students with their peers. This makes 'Student-centred Learning' a highly social enterprise that requires the constant development of human relationships and communication. Students are constantly encouraged to formulate and re-formulate their hypotheses in the solution of problems and tasks they work on.

• Students construct their own meaning by talking, listening, writing, reading, and reflecting on content, ideas, issues and concerns.

• Assessment is 'formative' in character. This means that its main aim is not to 'quantify' a student's performance in terms of the number of 'facts' they are supposed to acquire but understanding (and helping them to understand) the processes through which they arrive at certain conclusions in solving a given task/problem.

Personal experience at the EATI has shown that when students are active participants in the learning process it shows a positive correlation with their academic results. It has also encouraged deep learning in students which was evident by many students asking more meaningful questions and feedback on assessment tasks and feedback provided and their willingness to integrate knowledge from various sources and subjects. It has the potential to not only change the student but the teacher as well.

3.6.3 Teacher-centred approaches

Huba and Freed (2000) described teacher-centred learning as: students passively receiving information, in which the emphasis is on acquisition of knowledge and the teacher's role is to be primary information giver and primary evaluator. This clearly excludes room for student's personal growth.

Other authors (Coetzee and Schmulian, 2011; de Wet and Van Niekerk, 2001; Kastantin and Novicevic, 2008; Koma, 2009) also had similar ideas that include the following points:

Stellenbosch University https://scholar.sun.ac.za

• Teaching is geared for the 'average' student and everyone is forced to progress at the same rate.

• Assessment takes the form of traditional exams. These aim at making the students ‘prove’ that they have accumulated facts and information illustrated during a given course of study (without taking much care about whether students are able to process these into ‘knowledge’ which is ‘usable’ and ‘transferable’ in both their professional and personal lives).

• Syllabi and curricula are both discipline and product-based. They portray knowledge as ‘cumulative’ and leave little or no space for the processes through which information is translated into ‘knowledge’.

In terms of learning outcomes this means:

• Discipline-specific oral information as the main focus of the teaching-learning encounters.

• Lower order thinking skills (recall, identify, define) that allow students to pass summative assessment based on the regurgitation of ‘facts’.

• Memorisation of abstract and isolated facts, figures and formulas.

Assessment under these conditions becomes nothing but an add-on (Geyser, 2004) activity which might lead to confusion on the part of the student and promote a tendency for surface learning to prevail.

However, if one is open to introspection then a teacher-centred approach can be turned around to critically reflect on the shortcomings and strengths of such an approach to ultimately turn it into a teaching strategy that will benefit both student and lecturer. Then it is only a matter of aligning the assessment strategies to meet these goals. And if the assessment strategies are then critically analysed it opens the door for different and alternative approaches to assessment.

Stellenbosch University https://scholar.sun.ac.za

3.7 MODERN APPROACHES TO AND TYPES OF ASSESSMENT

For many years, institutions of higher education continued to over-use unseen and time constrained exams, essays and reports. Elsenburg Agricultural Institute is no different and at least for the time being still continues with this tradition. Brown and Knight (1994) considered the possibility of using assessment tools such as portfolios, in-tray exercises, posters, annotated bibliographies, reflective commentaries, critical incident accounts, reviews, role-plays, case studies and many of the other available means of assessment that are widely used in higher education institutions in the UK and internationally.

Even as far back as 2012 the Higher Education Council in the UK concluded that "it is time for a significant reappraisal of assessment strategy, policy and practice through evidence-informed change". In 2013 the Hanover research project (http://www.hanoverresearch.com/media/Hanover-Research-Higher-Education-Year-in-Review-2013.pdf) looked at trends among accrediting organisations in the United States. Some of their criteria relate to assessment methods and practices, which include:

- The expectation that institutions clearly state learning outcomes.
- That learning outcomes are assessed at all levels by multiple measures and that the measures are appropriate for what is being assessed.

The above research project also highlighted a number of emerging trends in assessment strategies. Of which one was the **degree qualification profile** where the assessments are driven by what students should know and be able to do with a degree, in spite of the disciplines they are engaged in. The five key areas mentioned were integrative knowledge; applied learning; intellectual skills; specialised knowledge; and civic learning.

Not surprisingly the 2013 Hanover research project indicated that on a global scale there was a greater focus on equity and access. The report highlighted that the UK placed great emphasis on student-centred learning with fewer entry barriers and a level playing field for all. In Australia they focussed on the development of cultural and intellectual life where the social and economic needs for a highly educated and skilled population are met.

Stellenbosch University https://scholar.sun.ac.za

In terms of assessment a number of American higher education institutions fine-tuned their assessment practices and the California Institute of the Arts stressed the importance of formative assessment and relied heavily on lecturer-student interactions. These included:

- mentor's reports (where every student entering the institute has an academic staff mentor assigned to them from their specific field of discipline, the mentor also writes a report of the student's progress which becomes part of their educational record).
- Faculty committee review (where a faculty review committee evaluates the students at least twice in their education at the institute which includes a detailed assessment of the student's record and work as it relates to the objectives of the programme.
- They also make use of rubrics that assist with this process.
- Mid-residence review (student's progress half way through their year is discussed and a report is used which will determine if the students may continue their studies) and
- Graduation-review (here the focus is on the final project of the student) (Hanover Research Report, 2013).

At Carnegie Mellon University the different lecturers are trusted to develop assessment protocols appropriate to the goals and specific nature of the faculties or disciplines. Their assessments focused on promoting students that are resourceful and creative, show leadership abilities but who are able to cooperate in a team environment. Assessment data is used to guide, support and evaluate instructional practices and facilitate student learning. Some of the specific assessment strategies include the use of seminars with professors to encourage critical thinking and dating of the subject matter, peer assessment and self-assessment using journals. The journal allowed for dialogue between students and lecturer (Hanover Research Report, 2013).

Stellenbosch University https://scholar.sun.ac.za

Cornell University (Mintzes, Wandersee and Novak, 2005) has a four step procedure for developing student learning assessments which include:

- Starting with a clear statement of the most important goals.
- Providing opportunities for students to learn.
- Careful planning of assessments so that the envisaged goals are achieved.
- Defining clear, appropriate standards to evaluate performance.

Below are some other examples of creative and modern assessment tools used at higher education institutions.

Princeton University	They developed a survey instrument for students to use to evaluate service-learning and encourage reflection (Prentice and Robinson, 2010).
Purdue University	Students receive badges which are aligned with the outcomes of the course once they have successfully completed a discipline. The badges can be converted to numbers for grading purposes. A real-time social networking tool used during class which enables the lecturer to adjust course content and improve the learning experience (Kehoe and Goudzwaard, 2015).
St. Olaf College	They use assessment findings as a means to an end and use a number of assessment tools to help students achieve success (Jankowski, 2012).

When teaching a class of more than a hundred students, one is made aware of how different all the students can be. Such as the fact that they all come from different socio-economic and educational back grounds. It is a fact that South African schools reflect the striation of the haves and the have nots. There are many private schools in South Africa but the fact is that they are outweighed by the amount of public schools that are still severely under resourced and frequently understaffed. So even though

Stellenbosch University https://scholar.sun.ac.za

the Department of Basic Education has guidelines regarding assessment practices at school, it is true that not all students are exposed to the advantages of the assessment strategies of the department. At an institute like EATI many lecturers still have free reign in terms of assessment strategies. Many prefer to stay in their comfort zone and repeat the same assessments they have done for the last 10 years. The body of evidence presented above in terms of new types of assessments as well as interactive assessment techniques are just the tip of the iceberg and it creates the opportunity for academic staff to try new and appropriate techniques, ones that are more suited to their style of teaching. The following section thus highlights the fact that many staff at EATI stagnate in terms of the assessment types that they use and should really be looking to our student body to guide them in terms of which new strategies to use.

3.8 TYPES OF ASSESSMENT AS USED AT EATI

The following types of assessment have been selected for description in this chapter simply because these are the types of assessment that are most abundantly and almost exclusively used at EATI.

3.8.1 Formative Assessment

3.8.1.1 Definition

Defining what makes up formative assessment goes a long way in helping to determine the purpose and effectiveness of formative assessments. Formative assessment was first labelled by Scriven (1967) ‘formative’ and was initially identified as a counterpart to summative assessment (LÓpez-Pastor and Sicilia-Camacho, 2017) while Black and William (1998, p. 7) defined formative assessment as “all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged”. Melmer, Burmaster and James (2008) saw assessment as a process used during instruction to provide feedback for the adjustment of ongoing teaching and learning for the purposes of improving student achievement related to instructional objectives.

Popham (2011) stated that an assessment is formative to the degree that the information collected from the assessment is used during the assessed instruction period to improve instruction to meet the needs of the students assessed while Trotter

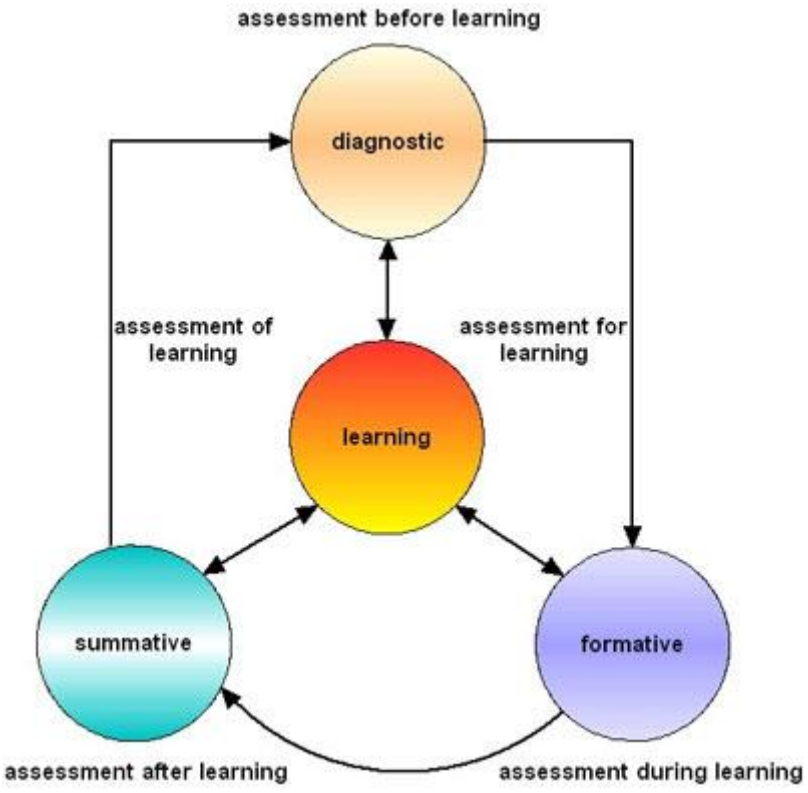
Stellenbosch University https://scholar.sun.ac.za

(2006) stated that formative assessment should provide feedback to students to allow learning to be enhanced and is considered to be the lifeblood of learning (Trotter, 2006).

Bennett's' (2011) review indicated that many authors (Bloom, 1969; Knight, 2006; Scriven, 1967) realised that the results of formative assessments were used for programme improvement and used to improve student learning. Important to Bloom and noted by Bennett (2011) was that the purpose of formative assessment was directed at providing feedback and correctives at each stage in the teaching-learning processes. This resonates with a much earlier remark (Falchikov, 1995, p. 175) that "assessment is the single most important factor in students' learning".

Bennett (2011), in his review on assessment, remarked on the conceptualisation of formative assessment with two distinct uses becoming apparent. The first is where assessors believe that formative assessment refers to an instrument (Pearson, 2005) frequently used for diagnostic purposes. Figure 3.1 depicts the purpose of assessment.

Figure 3.1: Purpose of Assessment



Source: Bennett (2011).

Stellenbosch University https://scholar.sun.ac.za

The second view believes formative assessment is not a test but a process, an idea that proves popular amongst educators and researchers as it is a far more qualitative view into student learning and understanding (Popham, 2008). Using these types of assessments can have numerous benefits and setbacks and below is a brief look at some of these.

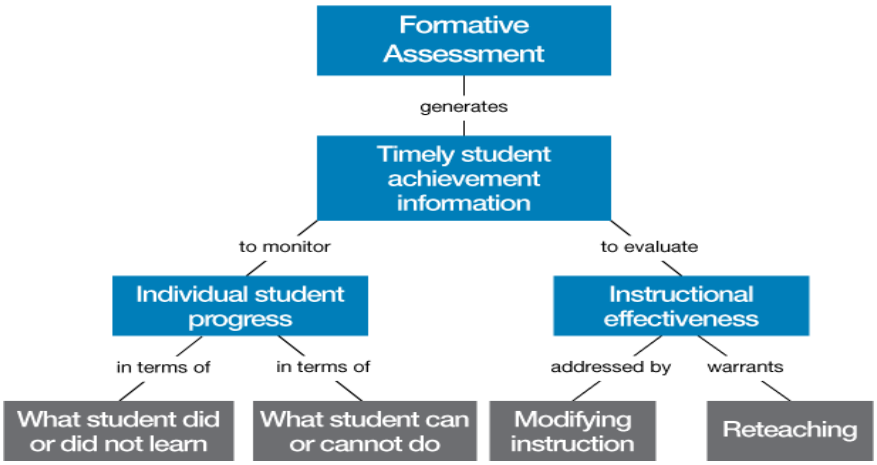
3.8.1.2 Advantages

It is clear from the different definitions for formative assessments that these types of assessments can be designed in different ways (summarising, graphic organisers, peer reviewing and group work are just some forms of formative assessments that can be utilised) depending on the assessor and the aims they have in mind. The main function seems to be the generation of feedback to students so as to facilitate and improve learning. Several authors (Boud and Falchikov 2005; Higgins et al., 2010; LÓpez-Pastor and Sicilia-Camacho, 2017; Sadler, 1998; Weurlander et al. 2012; Zou, 2008) summarised the benefits of formative assessment into three important areas. These areas include:

- the motivation to study,
- an awareness of own learning and
- the effects of formative assessment on learning.

Figure 3.2 succinctly depicts the advantages of formative assessment.

Figure 3.2: Illustration of benefits of formative assessment



Source: Higgins et al. (2010).

Stellenbosch University https://scholar.sun.ac.za

The Motivation to study: Authors indicate that formative assessment seems to be beneficial as it may act as an external motivator for the students and allows them to study and practice for the final assessment.

Awareness of own learning: The fact that students receive feedback on their progress increases the student's awareness of how well they are doing in terms of understanding and retaining information. In essence it could serve as a strategic planning process for students that allow them to reflect on their strengths and weaknesses.

Effects on learning: The above authors also indicated that formative assessment seems to play an important role in influencing the learning process (how we learn) and by affecting the learning outcome (what we learn).

Furthermore, from personal experience at the EATI it was observed that if these assessments are not graded it can ease the anxiety caused by summative assessments which frequently happens under stressful situations and can negatively impact on the students' ability to retain information or successfully complete a course or module.

Biggs (1999b) and Lopez-Pastor and Sicilia-Camacho (2015) also added that formative assessment, if correctly implemented, can:

- Contribute to the development of critical thinking and self-criticism.
- Help students to develop lifelong learning strategies.
- Allow for better understanding of the students' learning processes.
- Allow for greater involvement of teachers as well as help teachers improve their teaching practice
- Significantly improve academic performance in subjects that utilised this type of assessment practice.

If these advantages of formative assessments are to be accepted as fact it is difficult to dispute the benefits of using this type of assessment method to enhance students' success rates. Let us just hope that the benefit is not undermined by the shear amount of formative assessments used and that staff members are not exhausted both

Stellenbosch University https://scholar.sun.ac.za

physically and mentally especially in the absence of student assistants or tutors and inadequate computer infrastructure to have the process more teacher friendly.

3.8.1.3 Disadvantages

LÓpez-Pastor and Sicilia-Camacho (2017) highlighted several challenges associated with formative assessment. These were extrapolated from work by Biggs (1999a); Jenkins, (2005)and include the following:

- Students' lack of experience in dealing with any specific type of formative assessment.
- Difficulties with initial implementation because of its differences with other types of assessments.
- Both student and teacher perception of excessive workload.

Romero-Martín, Castejón-Oliva, and López-Pastor (2017) indicated that students were of the opinion that formative assessments can be:

- very demanding on their time
- the accumulation of work at the end of the process.

While Smith and Gorard (2005) reported that the introduction of formative assessments (at school level) without the necessary support infrastructure, was ineffective overall. Another indirect disadvantage was highlighted by Torrance (2012) in that formative assessments were increasingly being developed to improve tests and examination grades (by coaching students for tests) rather than to improve the experience of learning and the quality and diversity of learning outcomes. If one were to contextualise this at EATI, there are unofficial incidences where lecturers tend to teach the test and exam for fear of being reprimanded for high failure rates.

It does seem that formative assessment has its advantages in preparing students for a big summative event and increasing pass rates but the workload needs to be managed by the lecturer if they are to reap maximum benefits from the process without over loading students. The following section deals with a form of continuous assessment which is used for the computer skills course presented at the EATI.

Stellenbosch University https://scholar.sun.ac.za

3.8.2. Interim / Continuous Assessment

3.8.2.1 Definition

Continuous assessment (CA), also seen as a supplement to high stakes assessment, is another way of assessing student performance and then using those findings to improve student success. Cross and O'Loughlin (2013) concluded that continuous assessment has the potential to provide richer and more authentic teaching and learning when compared to once off summative assessment.

Heywood (2000) indicated that the concept of continuous assessment was used in the United Kingdom and Ireland before the terms formative and summative assessment formed part of the assessment vocabulary. In 2006 Trotter claimed that continuous assessment practices encourage students to learn on an on-going basis. This appears to be a logical view, considering that in essence continuous assessment usually involves a series of tasks that are individually marked or graded and is most effective with several distinct module learning outcomes. Such outcomes can be achieved at definable stages during the module, as echoed by Everson (2010) by concluding that continuous assessment include regular monitoring of whether course objectives are being met or not.

The advantages and disadvantages of CA can be separated into student-centred and teacher-centred elements respectively, but for the purpose of this thesis they are simply grouped together under advantages and disadvantages.

3.8.2.2 Advantages

Everson (2010) concluded that continuous assessment has the advantage of being a form of assessment that allows for the systematic and thorough monitoring of learner skills and knowledge acquired. Other advantages, as listed by students (Everson, 2010), included:

- Less strenuous parrot-learning.
- CA was considered as being fairer.
- Better time management.

Stellenbosch University https://scholar.sun.ac.za

Everson (2010) also noted that continuous assessment is appropriate as it gives the students control over their learning and thus changing the learning from teacher-centred to learner centred. This idea is shared by Hernández (2012), stating that the provision of feedback associated with continuous assessment points as being of high importance as judged by both academics and students.

Hernández (2012) also listed other advantages of using continuous assessment which include:

- Provided academics with more control over the assessment within the classroom as opposed to leaving such decisions to the institution.
- Students associated CA with motivation to learn on an on-going basis.
- Students believed it provided opportunities for feedback on their learning.

Hannay (1999) added to this by stating the advantages of CA included:

- Relatively low failure rates.
- Leads to clear assessment criteria being identified.

All these advantages could have the added benefit of ensuring improved or increased learner retention simply because students can manage the amount of work better as opposed to a curriculum so packed from start of the semester or year to the end. In fact, many lecturers (unconfirmed) at EATI indicated that students struggle when they are presented with large amounts of work that is tested at the end of a semester. Continuous assessment also potentially creates the platform for students and lecturers to interact with each other frequently so that strengths and weaknesses are identified and improved upon. This can greatly enhance the student experience as they might feel that the lecturers value their achievement and that they are not just part of a production line in a factory. This type of assessment might even lead to lecturers becoming more aware of aligning their curriculum with the assessment to ensure student learning and success.

3.8.2.3 Disadvantages

Though the benefits of CA are numerous lecturers and facilitators must also guard against the over use of these forms of assessment that could impact on the feedback

Stellenbosch University https://scholar.sun.ac.za

that is so vital to student learning (McDowell, Sambell, Bazin, Penlington, Wakelin, Wickes and Smailes, 2006). CA can provide a more reliable estimate of a student's capabilities and indirectly measure a student's capacity to manage time and handle stress (Brown, 2001).

However, according to different authors (Everson, 2010; Hannay, 1999; Hernandez, 2012), CA can make significant demands on the time of lecturers, especially if the numbers of students are large and feedback in the form of a mark is required. This is the case especially when one considers that timely feedback is an important part of continuous assessment as it informs the learner on how well they are progressing and how they can improve but this could be offset by factors such as the timing of the assessments and the size of the assessment activity.

Other disadvantages as mentioned by Hernandez (2012) include:

- Assessment overload
- Increase in student anxiety about marks
- Students commented that feedback could be limited may not be conducive to student development, learning or success; and
- The use of CA as formative and summative assessment.

Therefore, it is believed that much like formative assessments (which would not necessarily count towards a final mark), continuous assessment has a very important role to play in fostering student-lecturer relationships so that students feel valued and have a greater need to do better. If the strategy is correctly implemented it could definitely lead to curriculum alignment, quicker feedback and less anxiety that is associated with very high stakes assessments like summative events which will be discussed next.

3.8.3 Summative Assessment

3.8.3.1 Definition

Taras (2005) defined summative assessment as a judgement which encapsulates all the evidence up to a given point. This point is seen as finality at the point of judgment in essence to document a person's learning at the end of instruction (Herppich,

Stellenbosch University https://scholar.sun.ac.za

Wittwer, Nückles, and Renkl, 2014; Shavelson, Young, Ayala, Brandon, Furtak, Ruiz-Primo and Yin, 2008). Dixson and Worrell (2016) defined summative assessment as an assessment process that uses data to assess how much a student knows or has retained at the completion of a learning sequence and usually encompassed the high-stakes assessment; or the students' own knowledge (Gardner and Gardner, 2012). This type of assessment is thus almost always graded and usually at the end of segments of instruction or learning.

This is no different to the observations made by Elton and Johnston (2002) with regards to the extensive use of summative assessments in higher education. Similarly, Yorke (2003) recognised the impact of student/staff ratios and research pressures placed on lecturers that make it difficult to carry out formative assessment and favour summative assessment.

3.8.3.2 Advantages

Crooks (1988), Linn (2000) and Shephard (1991) provided some insights into the benefits of summative assessment (SA) when they mentioned in their reviews that summative assessment could:

- Provide motivation for students to study and pay attention in class or create a "culture of learning".
- Boost self-confidence. Especially when grades become a major indicator of success in higher education or the working world
- Give insight to lecturers and help them to identify areas in their curriculum that might require attention or a change in strategy
- Help students with curriculum alignment (in the case where the majority of students in a class gets most of the answers incorrect it is much more likely to be the result of poor or off-topic instruction than a class where students are unable to complete the work).

It is also judged that a summative judgement can be used to inform subsequent instruction (Black and William, 2009; Herppich et al., 2014; Perie, Marion and Gong, 2009). This could help lecturers (and students) to develop a plan of action both in and outside the classroom setting to ensure greater success. If summative assessments are critically reviewed they could potentially be quite beneficial as they might help to

Stellenbosch University https://scholar.sun.ac.za

avoid practicing for tests; deemphasise tests by using range of assessments in the classroom setting and recognising the limitations of tests and even avoid students from sitting for tests that they might be unlikely to pass. There are however many negative experiences associated with summative assessments and a brief discussion of these follow.

3.8.3.3 Disadvantages

Reviews by Crooks (1988), Linn, Dunbar, Harnisch, and Hastings (1982) and Shephard (1991) also highlighted several negative impacts of SA on students and student learning of which one was the increased anxiety levels amongst students. For instance, Crooks (1988, p. 439) uses the term “debilitating” when describing the effect of test anxiety on students.

Gordon and Reese (1997) expressed concern that the extensive use of SA could simply lead to lecturers teaching the test, while Harlen (2004) pointed out that SA could indeed lower the self-esteem of students that do not fare well during these assessments. Along the same lines, Gordon and Rees (1997) and Paris, Wasik, & Turner, (1991) came to similar conclusions.

Other disadvantages mentioned by Harlen (2004) include:

- Defining the curriculum in terms of what is in the tests to the detriment of what is not tested
- Giving frequent drill and practice for test taking
- Teaching how to answer specific test questions.
- Student’s judging their work in terms of scores or grades
- Allowing test anxiety to impair some students’ performance (particularly girls and lower performing students)
- Using tests and assessment to tell students where they are in relation to others
- Giving feedback relating to students’ capabilities, implying a fixed view of each student’s potential
- Comparing student’s grades and allowing students to compare grades, giving status on the basis of test achievement only; and
- Emphasising competition among students.

Stellenbosch University https://scholar.sun.ac.za

Another disadvantage of summative assessment especially contextualised in the EATI context is the fact that these opportunities are so important that students who for some reason or another do not get this opportunity, are denied another chance to make up for the loss of this mark. Students are given an opportunity to write a sick test (but only one) and due to unforeseen circumstances they are forced to write a sick examination (but only one). However, there has been the occasion where students missed these opportunities (transport problems, death in the family, emotional distress and even pregnancy) and have not been able to obtain a mark for a specific module regardless of their proven academic success record.

The advantages and disadvantages of SA frequently do not even touch on the idea of validity and reliability, the idea that an assessment must be set up in such a way that it accurately reflects all of the material that was covered (or it is intended to cover) which might even include the way in which the theory was taught. Closely related to this, is consistency of marking across tasks because if these assessments (which lecturers value so much) are neither valid nor reliable then it is plausible that it could defeat the purpose of accurately measuring students' performance.

The above mentioned methods of assessment are by no means the only tools that could be used by academics and institutions to increase pass rates and increase student learning. It is the purpose of this thesis to contextualise the use of these assessments, as well as highlight the importance it has on the pass rates of, especially, the first year students who move from a schooling system that has a completely different approach to examinations in terms of the big emphasis on formative assessments and also use continuous assessment. It is also the hope that this will highlight the importance of moving towards a system of continuous evaluation as this could serve to minimise the impact of the very 'high stakes' assessments (big tests and examinations) on student pass rates.

In South Africa there is still a huge disconnect between the different Agricultural Colleges and even within institutions there is no one size fits all strategy in terms of assessment practices. Many institutions do not have dedicated personnel to evaluate and write up standard operating procedures (SOPs) for assessment policies and these mentioned factors could provide its own set of challenges when it comes to reviewing

Stellenbosch University https://scholar.sun.ac.za

and implementing assessment strategies. This can lead to many barriers and challenges which will be briefly address next.

3.9 CHALLENGES OF ASSESSMENT

Ensuring that curricula are designed and delivered in a manner that is pedagogically sensitive to students from diverse educational and cultural backgrounds presents complex and demanding challenges for universities (Ogude, Nel and Oosthuizen, 2005). These authors identified curriculum design as well as methods of assessment as factors that institutions of higher education, especially in the South African context, need to take into consideration when curricula are reviewed and implemented. They further mentioned that assessment should enable students to acquire knowledge and skills in a meaningful manner that enables them to understand the inner logic of the academic practices and ways of understanding that they are trying to master. One of the challenges in this regard would be the responsibility institutions have to transform its practices so that curricula articulate with students' entry level knowledge practices.

Orrell (2005) suggests that institutions can take the road of taking responsibility for the quality of students' learning after they have entered the institute. This would mean that any curriculum designed by an institute must answer the following questions:

- What is worth learning at the institute?
- What kind of learning tasks will engender the kinds of learning we deem important?
- How can we determine whether students have learnt what we wanted them to learn?
- How can we give students feedback that will help them to be their own critics in the future?

Institutions of higher education in South Africa have seen a change in student enrolments and Dunkin and Lindsay (2001) point out that there are certain implications that go along with this change in student demographics and diversity. Some of these challenges include:

Stellenbosch University https://scholar.sun.ac.za

- The need for new ways of teaching and learning. Since assessment is an integral part of the learning process the assessment tools and strategies of EATI will thus be a challenge to these students.
- Tailoring of courses to meet the needs of paying customers. Therefore, an institute that does not evolve its assessment methods could potentially have very high failure rates or students that are not adequately assessed and thus prepared for the real world which could mean a loss of students and income.

Dunkin and Lindsay (2001, p. 529) further state that, “unfortunately, credible evidence of learning and effectiveness can be elusive…To date, however, community colleges and their stakeholders have not resolved what constitutes credible evidence in all areas of their mission.”

The above challenges are also highlighted by Volkwein (2003) in his comprehensive analysis of the status of student learning assessment when he wrote that lecturing staff are most enthusiastic about assessment when they fully understand what assessment is and how they and their students can benefit. It is when assessment is focused on improving teaching and learning that lecturers recognize it as being connected to their interests.

Another major challenge around the issue of assessment, especially formative assessment is that students might not take them seriously (O’Farrell, 2005). Students are most motivated by what will contribute to their final mark as this will be the ultimate indicator of success. Therefore, if formative assessment has no consequences and is not efficiently utilised it could be seen as nothing else but a waste of time to students. Students must be made aware of the impact or contribution that FA has towards their final mark.

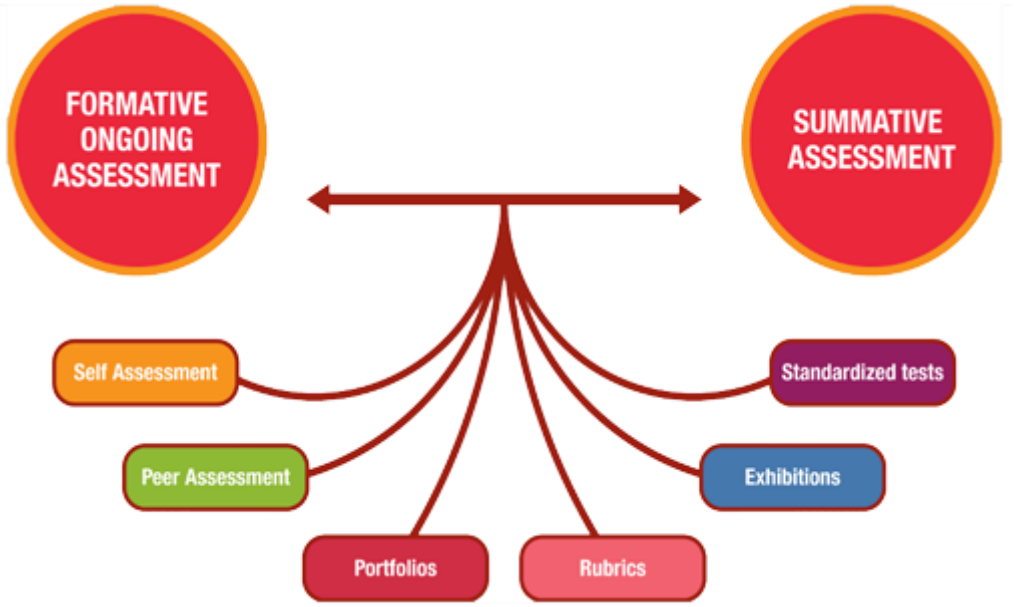
O’Farrell (2005) also pointed out that assessment needs to be matched to learning outcomes. This fits with Biggs’s (1999a) assertion of ensuring that assessment is aligned with the outcomes of whatever course is being taught.

O’Farrell (2005) touched on another aspect and that is the assertion that assessments can be boring and thus it is imperative that assessment is effective, efficient and interesting for students. This could be easily overcome by varying the type of assessments that are done during the duration of the course. Brown (2001) listed

Stellenbosch University https://scholar.sun.ac.za

some assessment methods that could be used to counter the monotony of traditional assessment and some of these include: Cases and open problems; computer based assessments; essays; mini practicals; oral poster, sessions; presentations; group projects; questionnaires and report forms; reflective practice assignments and self-assessed questions. Some of the assessment modalities that could be utilised are depicted in Figure 3.3.

Figure 3.3: Assessment methods



Source: Brown (2001).

Dunkin and Lindsay (2001) also highlighted the issue of time spent on assessments. When an institution bogs down academics with high student numbers and inadequate support structures academics might be inclined to revert to the default type of assessment strategies. When academics have to present their own classes, tutorials, practicals and remedial help plus make time for feedback when teaching large numbers, the need to find a short cut or forgo a constructive assessment policy becomes a reality.

Geyser (2004) posed several questions that allow for reflection and touch on some issues that could also prove to be problematic in terms of assessment. These questions have been rewritten here to become problem statements in essence and include:

Stellenbosch University https://scholar.sun.ac.za

- An institution has an assessment policy and clear and effective procedures for its implementation.
- The policy and its procedures ensure academic and professional standards in the design, approval, implementation and review of assessment strategies for programmes and modules, and for the qualifications it awards.
- The extent to which academic staff responsible for official decisions on assessments are appropriately trained, experienced and competent to assess.
- Assessment in a programme and /or module is conducted within a framework or institutional/ faculty/professional rules and regulations governing assessment.
- Assessment practices include assessment criteria, formative assessments, feedback to students, weighting of class marks, disciplinary and appeals procedures, regulations for marking, grading, supplementary assessments and condoned passes.
- Assessment in a programme and/or modules generates data for summative purposes and also for formative and diagnostic purposes, such as providing timeous feedback to inform teaching and learning.
- Assessment practices rely on sound assessment principles, procedures, methods and techniques that are explicit and fair and consistently applied.

Many of the above issues have been raised in this chapter. It thus becomes clear that the absence of a comprehensive assessment strategy could be considered a major barrier in determining whether assessment practices have a significant impact on student success or pass rates.

Many of the issues and problems around assessment are also highlighted by Friedlander and Serban (2004) when they questioned why so many institutions and in particular community colleges in the USA find it so difficult to design, develop, implement, and sustain a comprehensive approach to assessing student learning outcomes.

Their article identified 4 major challenges that need to be addressed if the goal of assessing student learning outcomes is to be fully achieved. These are:

1. The lack of evidence that multi-year efforts to assess student learning outcomes affect student learning and development, achievement of desired institutional

Stellenbosch University https://scholar.sun.ac.za

outcomes, instructional methods, co-curricular programs and college policies and processes.

2. The lack of knowledge about assessment processes, tools and models. This especially holds true for new academic staff who have not been exposed to workshops and training on assessment and assessment practices. It becomes all too easy for these academics to just focus on teaching the test or neglecting formative types of assessments to help students.
3. The difficulty in gaining consensus among academic staff in what they are trying to achieve at the course, program and college levels.
4. Implementing and sustaining a comprehensive student learning outcomes assessment effort in a community college setting is difficult. Even the concept of a community college is a very American idea whereas an institution like EATI is a state regulated organisation and is one of 11 agricultural colleges in South Africa. However, there is no standard curriculum amongst these institutions as some of them do not even present the same modules. Therefore, since there is no uniform assessment policy it becomes imperative that a document which could help these agricultural colleges set up a comprehensive assessment plan is implemented sooner rather than later.

3.10 Conclusion

Regardless of the type of assessment used by teachers, lecturers or facilitators, it is evident that it is the feedback, or rather the type of feedback (Hernandez, 2012) that students receive that has a significant impact on the success or failure of the assessment type used. Therefore, it seems that one size does not fit all and that the assessment methods implemented needs to be conceptualised for the course. This would also include looking at whether the staff number is adequate in terms of numbers to provide effective implementation of the type of assessment method or that they are adequately trained to do the type of assessment that the policy dictates. Thus subjects that cover a relatively small amount of work could happily carry on with traditional types of assessment while subjects that have high credit values can greatly benefit from the use of assessments methods that provide frequent and adequate feedback.

Stellenbosch University https://scholar.sun.ac.za

This chapter has only highlighted a fraction of the issues, methods and challenges that higher education institutions (such as EATI) face in developing and implementing a comprehensive assessment policy that could benefit both academics and students. It must be remembered that it is the career of the students and indeed students learning and ultimately pass rates that will be used to measure the students' success at an institute such as EATI

All of the methods or tools used for assessment purposes mentioned in this chapter have the inherent goal of trying to improve, guide or encourage student learning and ultimately play a positive role in student pass rates. Some of them are used to increase surface learning while some are effectively used to improve or encourage deep learning by students. However, the improper use or incorrect tool of assessment or indeed the absence of an effective assessment strategy could be detrimental and disastrous for students, academics and an institute of higher education. These assessment tools are used to construct knowledge, to align curricula and to force students to be active participants in their learning and a reflection on the information contained in this review has indeed shown that the correct tools and the correct use of the assessment tools can have a positive impact on student learning, while the incorrect tool or incorrect use of the tools could have a seriously negative impact on the success rates or pass rates of students at any institute. Therefore, it becomes vitally important that an institute like EATI has a comprehensive assessment strategy in place to facilitate and increase student pass rates.

Assessment is just one aspect of many that need to be considered when looking at student pass rates and Ogude et al. (2005) pointed out that curriculum responsiveness can be a multi-layered concept that cannot be simplistically reduced to any one of the factors or strata outlined above. It seems important that higher education institutions need to respond in a holistic manner to ensure that the different indicators that could potentially impact negatively or positively on student pass rates receive adequate attention. If institutions do not respond or adapt adequately, they themselves might fail to be learning organisations.

Miller (2006, p. 1) wrote "that we have come a long way since the days when examinations were the make or break for a student." How far have we really evolved in our assessment practices at EATI when examinations count 60% towards a final

Stellenbosch University https://scholar.sun.ac.za

pass mark? Surely an examination that counts 60% can indeed make or break a student. Why is there such an unwillingness or lack of transformation around policy to change this status quo at EATI?

Stellenbosch University https://scholar.sun.ac.za

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter provides an overview of the research design and methodology used in this study. The previous chapter gave an account of the literature related to the concepts of assessment and the benefits and disadvantages of particular types of assessments. This chapter seeks to describe the research design and methodology of the enquiry while answering the main research question which is “What are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province.

From the literature explored in Chapter 3 it is evident that assessment methods and practices can have an impact on student pass rates if (1) the assessment is not appropriate or aligned with the curriculum and outcomes of the course (2) there is not an extensive assessment policy to guide and assist lecturers to ensure and enhance the validity and reliability of assessment in their courses. There is no lack of research on assessment and its potential influence on student learning and pass rates as explained in Chapter 3, but in the South African Agricultural context this is a different situation as not much research has been done on the topic particularly of the perceptions of staff and students in Agriculture on whether assessment practices can potentially influence first-year academic performance. Therefore, this chapter deals with the collection of information at one institution (at EATI) from students and staff to determine “what are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province”.

Delimitations and limitations, the assumptions of the study, the strengths of this study and issues of research ethics are also discussed in this chapter.

Stellenbosch University https://scholar.sun.ac.za

4.2 The research questions

To obtain the objective of this study research questions were formulated after consulting various literature sources on assessment practices and its impact on student performance (Chapter 3) and guided the setting of:

- The main research question,
- The subsidiary questions,
- And ultimately the statements contained in the questionnaires.

4.2.1 Main research question

The main research question posed for this study was as follows:

What are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province.

4.2.2 Sub-questions

The study employed a deductive logic; a pragmatic philosophical stance and an interpretive approach to data analyses to develop the following sub-questions to help answering the main research question:

- Is staff aware of existing assessment policies and practices at EATI?
- What type of assessment practices and techniques do lecturers employ at the EATI?
- Do first year students view assessment and assessment types to have an influence on whether they pass or fail modules at EATI?
- Does staff view assessment and assessment types to have an influence on whether students pass or fail modules at EATI?

4.3 Research Aim

As was indicated in Chapter 1, this study aimed mainly to determine the perceptions of students and staff on the potential impact of assessment practices on the academic performance (or success) of first-year students at EATI.

Stellenbosch University https://scholar.sun.ac.za

4.4 Research objectives

The research objectives of the study were stated as follows:

- To analyse the assessment policy at EATI.
- To ascertain if staff and students were aware of the assessment policy at EATI.
- To ascertain the type of assessment methods practised by staff at EATI.
- To survey students for their views and understanding of what their learning assessments are and whether they experience any effect on their pass (or success) rates.
- To survey staff for their views and understanding of the assessment strategy currently used at EATI and whether they believed it had an impact on student pass (or success) rates.

4.5 Research Design and methods

4.5.1 A pragmatic philosophical stance

The empirical research in this study was conducted with a pragmatic stance in mind. When conducting research, it is important to provide an underpinning for the research philosophy and approaches as this will ultimately lead to potential assumptions that can guide the research. Though there are many forms of pragmatism, many of them support the fact that knowledge claims arise out of actions, situations and consequences of discovery rather than the precursor of the situation (Tartakow, 2012). Tartakow (2012) also illustrated that many pragmatists do not focus so much on the methodology but rather the problem being studied and the questions asked regarding the problem while Dewey's definition (1938, p. 31) believed it to be "the doctrine that reality possesses practical character" while Joas (1992; 1993) suggests that pragmatism is an adaptation fitted to the problematics of specific situations. Perhaps the Webster definition provides the clearest definition by stating, pragmatism is a reasonable and logical way of doing things or of thinking about problems that is based on dealing with specific situations instead of on ideas and theories (source: Merriam-Webster's Learner's Dictionary).

According to Plowright (2011), this stance closely resembles a holistic integrationism which uses a pragmatic, integrated methodology to undertake investigations using empirical data derived from observation, asking questions and artefact analysis.

Stellenbosch University https://scholar.sun.ac.za

Therefore, pragmatism is focussed on using research methods that best fit the research problem and research questions at hand all the while keeping the context in which the research was conducted in mind as well as working towards a meaningful solution for the identified problem (De Vos, 2011). Ihuah and Eaton (2013) illustrated the pragmatic design while comparing it with other research paradigms to best summarise the value of this paradigm and is contained in Table 4.1 below.

Table 4.1: Summarised Comparison of Research Viewpoints in Social Sciences Research. (Ihuah and Eaton , 2013)

	Interpretative	**Positivism**	**Pragmatism**	**Realism**
Ontology	Things are socially constructed leading to subjective reasoning which may change with multiple realities	Emphasises that researcher is external, objective and independent of that study	Researcher is external, multiple, and the view is that chosen to best answer the research questions	Researcher is objective and exists independently of human mind but interpreted out of social situation
Epistemology	Toward subjective meanings of social phenomena, looking at details and realities behind it with motivating actions.	Things are observed to prove credibility to facts, focusing on causality and law generalisations thereby reducing phenomena to simplest elements	Either subjective or objective meanings can provide facts to a research question; focus on practical application to issues by merging views to help interpret data	Belief that observing an event proves credibility of facts; scarce data, facts create imprecision and misinterpretations; focus only within context or contexts for explanations
Axiology	The research is value bound; such that the researcher is part of what is being studied, not isolated from the studied and will be subjective	The research is value free, hence independent of the data and objective in the analysis of the data	Values play a vital role to interpret results using subjective and objective reasoning	The research is value laden; hence, the researcher is biased by world views, culture, values, experiences and will affect the results/research
Approach	Qualitative	Quantitative but can still use qualitative	Uses both qualitative and quantitative	Approach adopted depends on the research matter
Method	Mixed or multiple methods	Mono-method but can use mixed in certain cases	Mixed or multiple methods	Method to use is based on the research problem or situation

Stellenbosch University https://scholar.sun.ac.za

Therefore, this research was done with a pragmatic stance in mind and also draws strongly on deductive (abductive) reasoning.

4.5.2 A deductive approach

This study followed a deductive logic with the aim of determining whether how, if at all, experiences of assessment practices at one agricultural institute potentially influence first year students' and staff members' perceptions regarding academic performance. This was deemed as important when pitted against the changing political climate in South Africa which has led to several changes in school curricula and assessment practices as well as unofficial feedback from lecturers at EATI which stated that the majority of first-year students are not prepared for the assessment methods at EATI. The progression from generalised observations to more specific observations and finally a guided conclusion is at the core of deductive reasoning. Therefore, the research was undertaken to explore the main research question in the hope that the collected data may ultimately help the researcher to draw conclusions regarding the use of assessment practices at EATI and arrive at pointing out research-based implications for assessment policies and strategies at EATI.

4.5.3 Research Design

A research design is a guide and directs all activities and processes of research and should follow a logical design and process (Yin, 2009). In an attempt to answer the research question as posed in this thesis, a survey design, based on a cross sectional approach was adopted. Survey questionnaires were thus distributed to first year students enrolled for the 2015 academic year as well as to a select group of lecturers who teach first year modules (and one staff member who dealt with first year students on a regular basis via the induction program). The questionnaire was compiled based on a comprehensive review of the literature as and integrates the literature review and personal insights, experiences and perspectives, adapting available questionnaires, where appropriate and available.

The data were collected over a period of two weeks from the lecturers that teach Biology, Soil Science, Mathematics and Agricultural Business Management, Crop Protection and Agricultural Engineering modules as well as the students that were registered for these modules. From these groups, a sample was drawn that would

Stellenbosch University https://scholar.sun.ac.za

make it possible to generalize the properties and characteristics to an institutional population (Sekaran and Bougie, 2011). Respondents were requested to provide data with respect to their biographical characteristics, measured on a nominal scale. Data regarding the applicable topic under investigation were generated using a 4-point Likert scale, with 1 indicating strong disagreement with a particular statement, and 4 indicating strong agreement with a particular statement.

The main dimensions covered by the student survey were focussed on whether students are aware if an assessment policy exists at EATI, if students can identify the difference between the two main types of assessment (formative and summative), whether students receive feedback after assessment and whether the feedback helps to direct learning, whether feedback and assessment lead to prolonged retention of information, whether the assessment strategy used by lecturers prepare students for the summative assessment events such as examinations, encouraging students to focus on their most successful module and seeing whether all the chosen criteria holds true for that particular module.

The main dimensions covered by the staff survey focussed on the following: whether staff are aware of an assessment policy at EATI; whether staff are familiar with the terms ‘formative’ and ‘summative’ assessment; whether staff use formative assessment in their modules; whether staff provide feedback to students after an assessment event; whether staff believe their support towards students at EATI is sufficient; whether staff considered other factors to impact on first year success; whether staff thought students needed extra help in passing exams in the form of formative assessment, tutorials or guidelines for examinations; whether staff used tools to evaluate assessment tasksand if staff are of the opinion that an improved use of formative assessment are required to adequately prepare students for summative assessment or to encourage student learning.

This chapter thus outlines the research paradigm, the method chosen for the research and specific information about the rationale for the method chosen.

Stellenbosch University https://scholar.sun.ac.za

4.6 Methods to generate data

The data-generation methods used in this study are discussed by referring to data generation, sampling procedures and data analysis. A cross sectional research design, using a combination of quantitative methods (questionnaires) and qualitative methods (interviews) was utilized.

4.6.1 Generating qualitative data

In working with qualitative data, the main objective is to describe events or experiences of individuals in their own natural setting such as a home, school or an organisation. The participants' and the researcher's interpretation of data is extremely important to this research process. Several classifications and terms in the literature can be very confusing and it is important to understand the differences in approaches to studies using qualitative data (Willig, 2009). The reason for using qualitative and quantitative data is because it is a very useful tool suited to understand the phenomenon in this field of study. In a study which uses qualitative data, the factors involved are not controlled and it is not intended to apply generalisability of the findings to other populations. Studies using qualitative data require sufficient freedom and scope to unlock ideas and issues that the researcher wishes to capture (Henning, Van Rensburg, and Smith, 2010).

It is not always possible to capture data in predetermined instruments and this may limit the level of understanding of the research topic. Hence, if the researcher wishes to capture richness of data, very often an inquiry using qualitative data is turned to and usually with a specific purpose in mind. In this way, it is possible to find out more about the thoughts, actions and emotions of the participants and whether the findings may have any significance for the future (Henning et al., 2010). According to Willig (2009), data collection is to create a comprehensive record of the participants' words and actions with minimal loss when data is transcribed. It is anticipated that data handling will not be difficult and not much is likely to be excluded which is of relevance and importance to the study.

Babbie and Mouton (2008, p. 490) advocate that 'there is no one neat and tidy approach to qualitative data analysis, nor even one approach to specific type of qualitative data analysis'. This research has defined a compelling question that the

Stellenbosch University https://scholar.sun.ac.za

researcher is seeking to learn more about. This has made it easier to decide on a paradigm for assessment from which to progress, and has led to a theoretical framework within which to apply suitable techniques for the study.

When analysing the data, the researcher seeks to find a pattern and a reason for the way in which something happened. An appropriate technique which may assist in understanding these experiences is based on the method of content analysis.

4.6.2 Content analysis

Clarity on the research process and approaches used for qualitative data analysis is important in achieving the researcher's interest. In this study the theoretical focus is partially on content analysis for which there is a plethora of definitions.

Content analysis is defined as 'words or phrases within a wide range of texts, including books, chapters, essays, interviews and speeches as well as informal conversations and headlines (Babbie and Mouton, 2008). Green (2004, p. 82) defines 'content analysis as a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use". Qualitative content analysis defines itself within this framework as an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step by step models, without rash quantification (Mayring, 2000).

According to Sekaran and Bougie (2011) content analysis involves quantification of qualitative information obtained through systematic analysis of relevant information which is used. This may be used in providing a means for submitting it for statistical analysis. While analysing qualitative data, the notes transcribed are integrated and categorized under appropriate themes, the response categories then transformed into numbers, and subjected to appropriate data analysis. By using multiple methods such as interviews and questionnaires, the researcher establishes convergent validity and a sense of reliability of the data (Sekaran and Bougie, 2011).

This body of research was started because during informal conversations with students and staff at EATI concepts and words such as assessment types and

Stellenbosch University https://scholar.sun.ac.za

practices and student performance consistently raised concerns amongst students and staff.

The characteristics of content analysis refer to language or communication with regards to its content. Two types of content analyses are applicable, namely thematic (conceptual) and relational analysis (Babbie and Mouton, 2008). Thematic analysis refers to 'coding and categorising as well as extracting and constructing themes from categories' also referred to as 'thematic organisation' (Henning et al., 2010, p. 107). The actual coding and categorizing of the data is to get to grip with the content which then becomes part of the analysis process. Again this body of research was started because during informal conversations with students and staff at EATI concepts and words such as assessment types and practices and student performance consistently raised concerns amongst students and staff.

Qualitative content analysis is the preferred choice for novice researchers because it focuses on one level of meaning, namely, the content of the data texts. The limitation may be that the findings may be superficial as it captures the 'real world' of the research participants in a straightforward way without much interrogation of the data. Software analysis programs, (such as CAQDAS, for instance) look for meaning in single type lines from the initial transcriptions (Henning et al., 2010). Mayring (2000) advocates two computer programmes that have proven its worth in interpreting qualitative content analysis, namely, Atlas/ti and WinMax. For this study the Statistical Package for the Social Sciences (SPSS) was used to analyse the data generated from the questionnaires.

Following this perspective, a cross sectional research design, using a combination of qualitative and quantitative (questionnaires) data collection was utilized. In conducting a cross-sectional analysis, the researcher looks for recurring themes – similarities, differences that represent common patterns. The response to the two questionnaires constitutes the data for further analysis (Willig, 2009).

The conclusion reached from a cross-sectional analysis is based on data collected at one single time. In the context of finding meaning, it may be required to introduce a longitudinal study which permits observations and data collection over a longer period

Stellenbosch University https://scholar.sun.ac.za

of time. Most research that involves observation of the experiences of participants or in-depth interviews is usually longitudinal in nature (Babbie and Mouton, 2008).

4.6.3 The Sampling Procedure

At the start of the study, permission was requested and permitted by the CIAT to conduct the study at Elsenburg, a Department of Agriculture in the Western Cape Provincial Government (Annexure A).

Participants were provided with a background for the purpose and objectives of this study. A confidentiality clause was included which informed respondents that it was voluntary, that their responses would be completely anonymous and confidential and the data collected would be used for the purpose of this study only.

The questionnaires were administered to the population of students at the CIAT via internal memorandum with a covering letter outlining the purpose of the research, as well as important information regarding the completion and return of the questionnaires.

To ensure anonymity of the respondents, participants were requested to submit the questionnaire to the researcher within 2 weeks upon receipt of the questionnaire. Clearly marked boxes were made available on relevant floors within the departmental building for respondents to easily submit their completed questionnaires.

Participants were urged to complete each section of the questionnaire. However, where the respondents did not feel comfortable in responding, the voluntary request to complete was outlined to encourage as many responses as possible for the purpose of the study. Weekly follow-ups were made with the respondents to encourage submission and to deal with any questions that could be addressed with an aim for a high return success rate.

Each questionnaire included a covering letter inviting subject to participate voluntarily in the study and assuring them that their individual responses would remain confidential and anonymous.

Stellenbosch University https://scholar.sun.ac.za

4.6.4 The participants

Participants were all selected from the same organisation. The participants included first–year students (2015 intake) and lecturers at the EATI. All participants participated freely and voluntarily according to agreed ethical research principles.

Non-probability sampling is often the most appropriate approach for qualitative researchers. A non-probability sample was utilized for the purposes of this research. The researcher relied on purposive or judgment sampling, to determine which employees from which to choose, for the data collection (Struwig and Stead, 2001). Sometimes it was necessary for the researcher to select the sample on the basis of existing knowledge of the population, its elements and the nature of the research topic (Babbie and Mouton, 2008). A population can be defined as the specific group of people that the research has been conducted on; which allows the researcher to examine the elements of the study (Sekaran and Bougie, 2011).

In this qualitative study the researcher had an idea of who the participants could be. Henning et al. (2010), refer to this as the 'theoretical population' – those employees who are able to partner with the researcher to achieve the objectives of the study. In reality it is almost impossible to study all the members of the population that interests the researcher. In every research study, the researcher will select the group of people who represent the population and from whom they can collect data (Babbie and Mouton, 2008).

According to Sekaran and Bougie (2011), a sample is a subset of a whole population that is investigated by the researcher and whose characteristics are generalized to the entire population. Babbie and Mouton (2008) refer to a sample as that small group of people researchers choose to collect data from, since they are almost never able to select the entire group.

Data was collected from employees in a single organisation. In all probability, the data may or may not reflect the exact characteristics of the phenomena that the research is hoping to achieve. Decisions about the research method differ from conducting a large scale survey. Understanding the phenomena for a specific context, suggests to

Stellenbosch University https://scholar.sun.ac.za

the researcher what type of design was methodically acceptable (Babbie and Mouton, 2008).

The researcher attempted to ensure that this approach to selecting the sample indicates each individual's responses could be captured in a way which allows several conclusions to be drawn. The above factors enabled the researcher to achieve, having used an appropriate sample and with a minimum degree of bias, information that would address the topic and purposiveness of this research. Therefore, the rigour of the study makes it possible for the researcher to achieve the hallmarks of the research (Sekaran and Bougie, 2011).

4.7 Method of data collection

In many cases where information that is gathered in the social sciences, relative to attitudes, emotions, opinions, personalities and descriptions' of people's environment involves the use of Likert-type scales (Gliem and Gliem, 2003). The questionnaire designed for this thesis was designed to gather information regarding the perceptions and feelings of both students and staff at EATI regarding assessment practices and its potential impact on student performance. This type of data gathering is in line with the various definitions and uses of Likert scales by many authors and researchers over the years (Likert, 1931; McIver and Carmines, 1981; Nunnally and Bernstein, 1994; Spector, 1992).

4.7.1 Questionnaires

The instruments used as the method for data collection were in the form of a quantitative questionnaire and a short qualitative study. A questionnaire is a predesigned written set of questions to which participants record their answers.

Questionnaires are just as important as the nature and wording of the questions. Improper questionnaires can lead to confusion for the respondent (Babbie and Mouton, 2008). The questionnaires used in this study have been adapted from similar ones used in other studies where they have been shown to be valid and reliable. Even though most of the participants may have had previous knowledge of completing

Stellenbosch University https://scholar.sun.ac.za

questionnaires, the researcher clarified the requirements with respect to questionnaire completion. In this manner, the researcher was able to clarify any confusion for the respondent (Babbie and Mouton, 2008).

4.7.2 Advantages and reasons for questionnaires

The advantages of the survey research approach include savings of time and money, a lack of interviewer bias, accurate results, more privacy for participants, and the fact that samples need to be very large in relation to the population (Salkind 1997). Various other authors have highlighted similar benefits of utilising questionnaires (Denzin and Lincoln, 2002; Dessler, 2000;), which includes:

- The cost per questionnaire is relatively low.
- Questionnaires have proven to be very useful in obtaining information from relatively large sample groups, and may be quicker and more efficient in this process;
- Structured information in the questionnaire and few open questions makes analysing questionnaires relatively straightforward.
- Questionnaires give respondents extended time to formulate accurate responses.
- This method of data collection produces quick results.
- Questionnaires are a stable, consistent and uniform method of collecting data.
- Questionnaires can also provide a high degree of anonymity amongst its participants.

Since the researcher is also a first year lecturer at EATI, it was important to avoid bias when presenting and analysing the student questionnaires and therefore the questionnaires were handed to students and collected via a drop off box system and presented to an independent individual who performed the statistical aspect.
The questionnaires for the research were separated into a student questionnaire and a staff questionnaire.

The student questionnaire consisted of two sections, namely Section A and Section B. Section A dealt with general statements around terminology and the use of assessments as the students understood and experienced it at the EATI while

Stellenbosch University https://scholar.sun.ac.za

Section B asked the students to focus on the subject that they performed best in and contained the same statements as the ones in Section A.

The staff questionnaire consisted of two sections as well. Section A contained open ended questions and gathered information regarding the lecturers' perceptions and thoughts on factors that could influence academic performance at EATI. This was done to allow staff to share with the researcher their views according to their own experiences and backgrounds. Hofstee (2009) believed that this approach allowed participants to feel at ease and gave them a sense of control over their answers.

Table 4.2: Advantages and disadvantages of using open-ended questions (adapted from Neuman, 1997, p. 241).

Advantages	Disadvantages
Unlimited number of possible answers	Different participants give different degrees of detail
Participants can answer in detail and clarify responses	Responses may be irrelevant or buried in useless detail
Unanticipated finding can be discovered	Comparisons and statistical analysis become difficult
Adequate answers to complex issues are provided	Coding of responses is difficult
Creativity, self-expression and richness are permitted	Articulate and highly literate participants have an advantage
Participants' logic, thinking process and frame of reference are revealed	Responses are written verbatim, which is difficult for the researcher to interpret
	More time, thought and effort are necessary
	Participants may be intimidated by questions

Section B contained statements similar to the ones in the students' questionnaire to gauge whether students and staff had similar perceptions regarding the statements presented to them and was rated according to a Likert-type scale.

Stellenbosch University https://scholar.sun.ac.za

4.8 Validity, reliability and objectivity

The traditional criteria for validity finds its roots from the positivist tradition, and to an extent, positivism has been defined by a systematic theory of validity (Golafshani, 2003). Within the positivist terminology, validity resided amongst, and was the result and culmination of other empirical conceptions, some of which included: universal laws, evidence, objectivity, truth, actuality, deduction, reason, fact and mathematical data (Winter, 2000).

Validity is established if the instrument used, actually provides a measure of what it sets out to measure (Kember and Leung, 2008). In the case of this research the questions for the questionnaires were adapted from various questionnaires as reported in Chapter 3 to help answer the main research question.

To help ensure that the questionnaire and information obtained were valid this researcher used face validity (Kember and Leung, 2008) in which the wording of items in a scale makes some reference to what is being measured. This is certainly by no means the best or most accurate way to ensure validity but was deemed appropriate for this level of investigation. The obvious problem which must be acknowledged here is the criteria for accepting validity claims, especially when dealing with a construct that is as hard to define as perceptions amongst a myriad of individuals. Therefore, far from being imperfect or invalid the validity for this research needs to be weighed against the pragmatic view which is encompassed in the view that pragmatism is a reasonable and logical way of doing things or of thinking about problems that is based on dealing with specific situations instead of on ideas and theories (Merriam-Webster's Learner's Dictionary).

To further increase validity the researcher used both qualitative and quantitative approaches in the lecturer questionnaires in the hopes that this would somehow provide a sense of convergent validity and a sense of reliability of the data (Sekaran and Bougie, 2011). Having decided on a set of questions for the questionnaires, it was necessary to ensure that they formed a reliable scale when administered to the specific population or sample.

Stellenbosch University https://scholar.sun.ac.za

Joppe (2000) defined reliability as the extent to which results are consistent over time and an accurate representation of the total population under study. The author also highlights that if the results of a study can be reproduced with similar methodology, then the research instrument is considered to be reliable.

This was shared by Struwig and Stead (2001) who postulated that reliability refers to instruments' scores, or observations, which are reliable if they consistently measure the same construct. They also mentioned that an instrument cannot be reliable but its scores can be. The concept of repeatability seems to be important in determining or claiming that the instruments used during research are reliable as Kirk and Miller (1986) identified three types of reliability in quantitative research, which related to:

- the degree to which a measurement, given repeatedly, remains the same
- the stability of a measurement over time; and
- the similarity of measurements within a given time period.

Granted that when it comes to questionnaires, the relative reliability can be increased by retesting the same sample group at a different time but this was not done for this particular body of research and can be considered to be an area of improvement should this type of research be continued at EATI. However, the mere fact that staff and students are exposed to the type of statements in the questionnaires could lead to a learning curve that could influence some of the responses. This consistency might be important for some types of research as pointed out by Charles (1995) as it will lead to stability and a high level of stability is indicative of a high level of reliability (Golafshani, 2003). However, as mentioned before the act of retesting could lead to a lower degree of reliability therefore for this particular body of research it was decided not to retest in the hope that the act of a single collection opportunity would provide a sufficient and acceptable level of reliability for this thesis. That unfortunately is the nature and critique associated with using these instruments as "the researcher may be able to prove the research instrument's repeatability and internal consistency, and, therefore reliability, the instrument itself may not be valid" (Golafshani, 2003, p. 599).

Stellenbosch University https://scholar.sun.ac.za

The original questionnaires used during this study have been adapted from various literature sources and are constructs of previous research as indicated by the literature.

4.9 Data analysis and interpretation

Data analysis is a process of organising pieces of information, identifying their key features or relationships and interpreting them (Lankshear and Knobel, 2005). All the data collected or gathered in the research study were documented carefully and analysed qualitatively. The tools used would be to provide the researcher with support during the interpretation, condensation and synthesising phase. There are a number of options which can be used to discover the meaning of the phenomena that occur. The conclusions drawn through the interpretation of results of data analysis should be objective and not based on any subjective or emotional value (Babbie and Mouton, 2008).

4.9.1 Coding the data

Coding data requires the researcher to make decisions around what they are going to code, for example, coding for frequency or coding for existence. The researcher decides whether they are prepared to generalize on words that may have similar meaning as well as the parameters of what is acceptable or not. Through this process a set of rules automatically emerges for the study. The more certainty gained through this process, the more certainty is gained in which of the data that has been transcribed should be left out (Babbie and Mouton, 2008). These practices have been applied in this study. Basic approaches to working with the data usually start with a set of data that has been transcribed from the interview (Henning et al., 2010).

Stellenbosch University https://scholar.sun.ac.za

Table 4.3: Phases in the data collection and analysis process

Phase 1: Orientation to the data	Phase 2: On the way – working the data	Phase 3: Final composition of the analysed data text (verbal and visual)
• Reading or studying data sets to form overview and to comprehend the context (within the data).	• Coding segments of meaning. • Categorizing related codes into groups. • Seeking relationships between categories to form thematic patterns.	• Writing the final themes of the set of data. • Presenting pattern of related themes.

(Henning et al., 2010, p. 138).

Green (2004), with respect to coding and analysing data, realised that:

(a) The findings should be replicated by others.

(b) The analysis should measure what it intends to measure.

(c) The analysis is not limited to contextual data.

Green (2004) further states that three basic approaches are contained in content analysis, namely:

(a) The frequency count of the words.

(b) To examine the co-occurrence of words.

(c) The coding of text units using a coding scheme.

Several other approaches are noted in the research, however for this study the researcher has used the approach proposed above by Henning et al. (2010) as most favourable. The researcher has read and studied the texts to conceptualise certain meaningful labels and key codes which is also beginning to highlight specific themes and patterns (Babbie and Mouton, 2008).

Stellenbosch University https://scholar.sun.ac.za

4.10 Strengths in conducting the research

One of the main strengths of qualitative research is the comprehensiveness of perspective it gives researchers. The researcher was able to develop a deeper and fuller understanding of the phenomenon under study. Flexibility is a major advantage of qualitative research and the researcher as the “main instrument” has modified the research plan to suit the object of the interview. This increased the validity of the findings and allowed more control and freedom in the research process (Babbie and Mouton, 2008).

Probably the greatest advantage of content analysis is its saving in terms of both time and money. There is no obligation to obtain a number of research resources or any special equipment to complete the research. The most important requirement is access to the data to be coded after the data collection phase. Content analysis provides a safe and secure approach to data even when the researcher is required to repeat part of the data collection. The time taken to collect data may occur over a longer period of time and seldom has an effect on the response of the participant. The researcher can always code and recode and recode again if necessary (Babbie and Mouton, 2008). Following a specific process in the data collection and analysis secures for the researcher essential guidelines which are necessary to bring clarity to the research. This in turn provides the research study with the defence and rigour it deserves when presenting the facts and reporting on the findings (Schilling, 2006).

4.11 Ethical issues to consider

Conducting research is an ethical venture and researchers should bear in mind the importance of ethics. The researcher uses a code of moral guidelines on how to conduct the research in a morally acceptable way. The research is exempt from plagiarism, distorting and inventing data, and republishing data as an original contribution without proper acknowledgement. Failing to adhere to the confidentiality and privacy of the research participants would have meant that the researcher was involved in scientific misconduct.

Before conducting the study, the researcher ensured that participants voluntarily agreed to take part in the study and they could decline or withdraw at any point in the

Stellenbosch University https://scholar.sun.ac.za

research process. Participants were informed and it must be understood that there would be no negative consequences such as feelings of embarrassment, loss of self-esteem or physical harm. Throughout the research study the researcher respected the confidentiality of the participants and guaranteed this at all time. Information regarding the names of the participants was not included in the responses sent via e-mail. Anderson (1990) outlined a set of criteria to be used when conducting ethical research. These included:

- Informed consent.
- Using volunteers.
- Honesty.
- The right to discontinue.
- Debriefing.
- Confidentiality
- Right to privacy.
- Respecting participants' time.
- Risks versus benefits.
- Vulnerable populations.

4.12 CONCLUSION

This chapter outlined the research design and methodology employed during this study. It orientated the research within an interpretive paradigm and provided details of the choice of methodology and instruments used. Since the study allowed the researcher to use both numeric and narrative data it resulted in a mixed-method design. Highlighted during this chapter was the quality measures used in generating and analysing the data while also mentioning the ethical issues that were addressed during this study as a whole. In the next chapter (Chapter 5) the empirical findings of this study will be reported on as related to the relevant literature explored in Chapter 3.

Stellenbosch University https://scholar.sun.ac.za

CHAPTER FIVE

RESULTS AND DISCUSSION

5.1 INTRODUCTION

Chapter 4 provided an outline of how the empirical part of the research was conducted at EATI. The aim of this chapter is to present the results from the data collection at EATI and discuss these accordingly. The results from the questionnaires for both students and lecturers, each with its own discussion, are presented in the following sections. To determine the success of any process it is important that research is conducted so that the collected data and information potentially answers the main research question of the study. The research question for this study was set as:

What are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province.

To answer this research question, the following sub-questions were formulated:

- Is staff aware of existing assessment policies and practices at EATI?
- What type of assessment practices and techniques do lecturers employ at the EATI?
- Do first year students view assessment and assessment types to have an influence on whether they pass or fail modules at EATI?
- Does staff view assessment and assessment types to have an influence on whether students pass or fail modules at EATI?

To answer these questions, the data generated from the questionnaires presented to both students and staff were statistically analysed. First the student questionnaires, which were quantitative in nature, are dealt with. This is followed by information gathered from the staff questionnaires and is also separated into a quantitative and qualitative section.

Stellenbosch University https://scholar.sun.ac.za

5.2 RESEARCH RESULTS

The research results which emanated from the survey which was undertaken to determine students' and staff perceptions as it relates to potential impact of assessment practices on academic performance, are presented in the following sections.

5.2.1 Results from student questionnaires

As mentioned in Chapter 4, various literature sources were consulted to compile the questionnaires and these were distributed to first-year B.Agric and Higher Certificate students at EATI. Of the 100 questionnaires distributed to the group of students, 81 were returned. Both sections of the student questionnaire consisted of a series of statements in the form of a four point Likert scale (1=disagree strongly; 2 = disagree; 3 = agree and 4 = strongly agree) to measure students' perceptions of assessment practices at EATI that might have an influence on academic performance. The results of these statements are graphically portrayed with a brief discussion of each statement.

Section A

This section was a generalised section on students' understanding regarding the terminology used at EATI when it comes to assessment practices; what these assessment practices are used for and their understanding around feedback across all their first year modules.

5.2.1.1 Demographic Information

The first section of the questionnaire covered demographics of the first year student population at EATI. Demographic information only included year of study as that was deemed important for this study as this was the focus for this study.

Stellenbosch University https://scholar.sun.ac.za

5.2.1.2 Student responses to questionnaire statements.

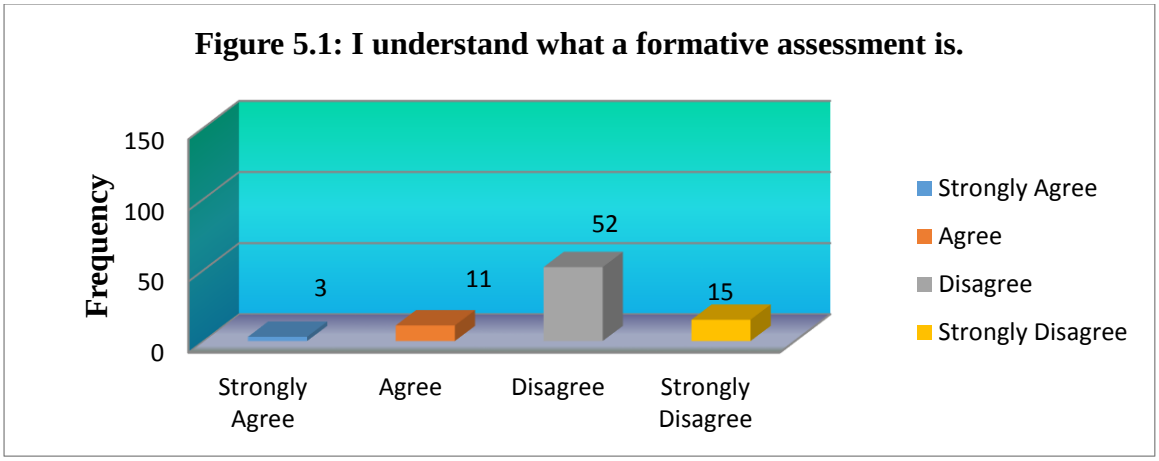
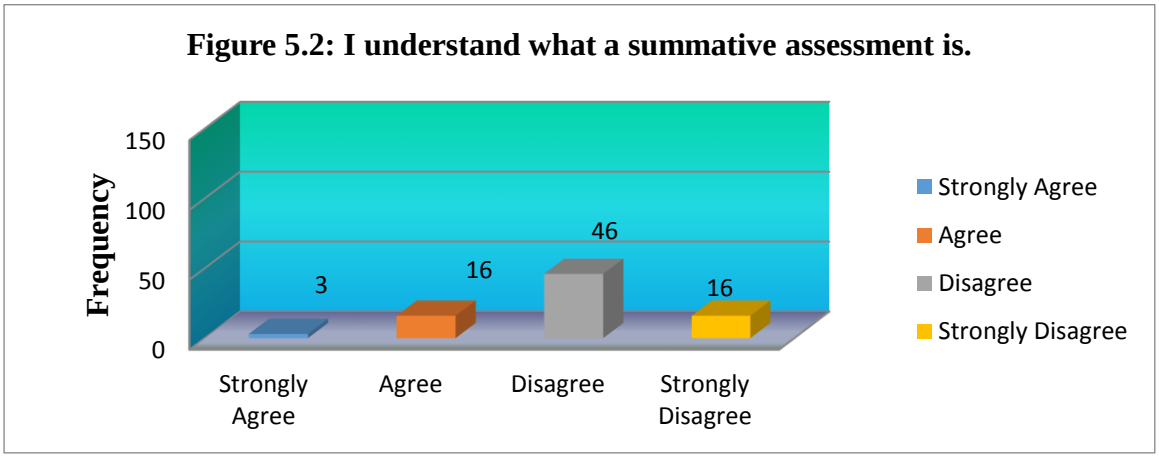


Figure 5.1 indicates that the majority of the respondents, that is 64.2% disagree with the statement “I know what a formative assessment is (n=52). In addition, 18.5% strongly disagreed (n=15). While 13.6% agreed with the statement, only 3.7% of students strongly agreed (n=3).

Figure 5.2: I understand what a summative assessment is.



With respect to Figure 5.2, it may be seen that 76.5% either disagree or strongly disagree with the statement “Ï know what a summative assessment is” (n=62). Only 23.5% of students agreed and apparently understood what a summative assessment is (n=19).

Stellenbosch University https://scholar.sun.ac.za

Figure 5.3: I am aware of the assessment policy of Elsenburg.

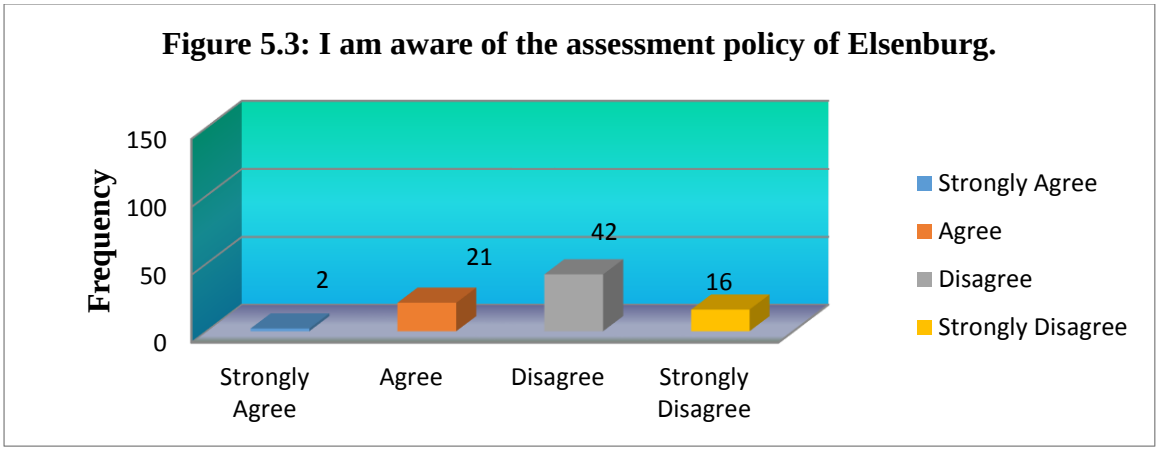
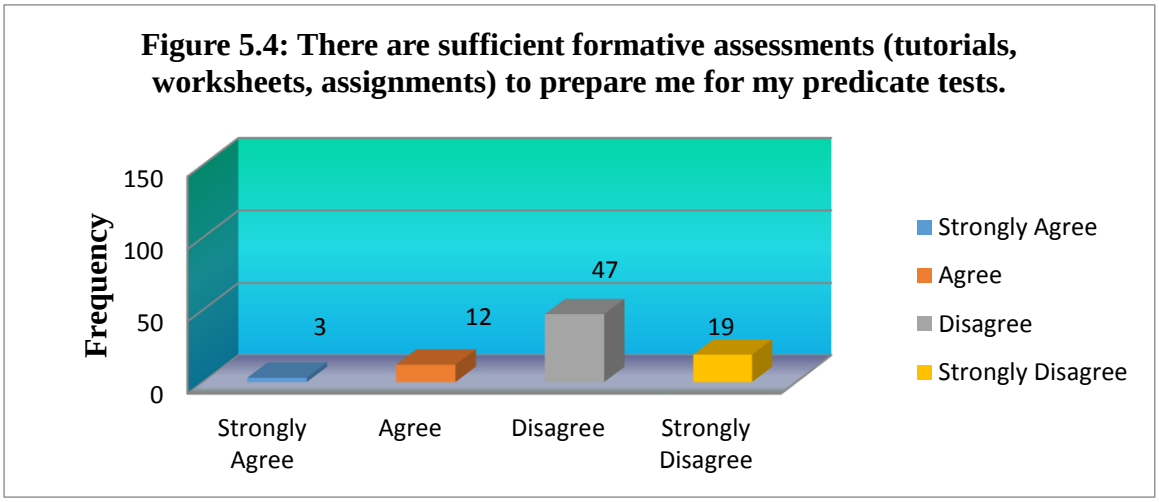


Figure 5.3 illustrates that the majority of the students, that is 51.9% indicated that they did not know what the assessment policy at Elsenburg is (n=42). In addition, 19.8% strongly disagreed (n=16). While 25.9% agreed (n=21), only 2.5% strongly agreed (n=2).

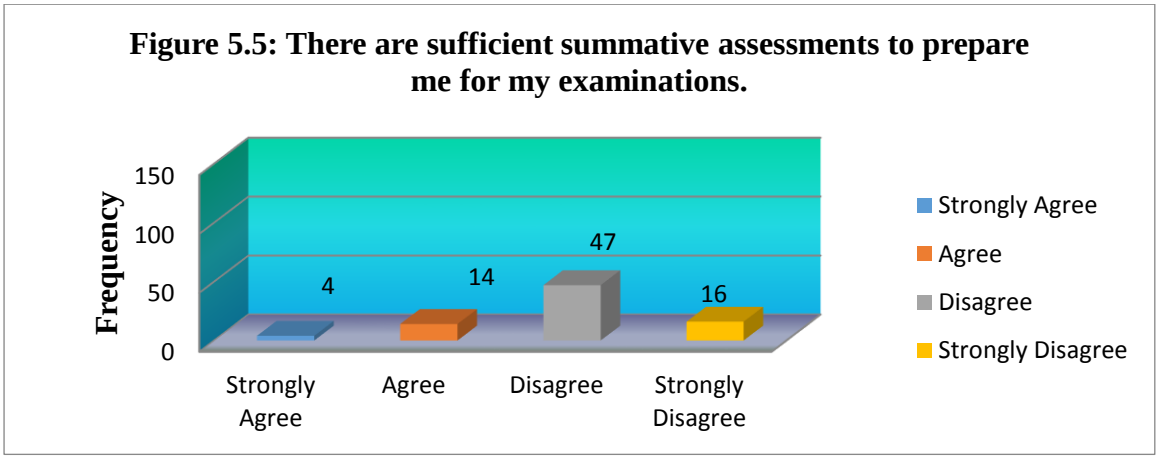
Figure 5.4: There are sufficient formative assessments (tutorials, worksheets, assignments) to prepare me for my predicate tests.



As depicted in figure 5.4, an overwhelming majority of students, or 81.5%, disagreed or strongly disagreed that there are sufficient formative assessments to prepare them for predicate tests (n=66). Although 14.8% of the students agreed (n=12), 3.7% strongly agreed (n=3) that there are sufficient formative assessments to prepare for predicate tests.

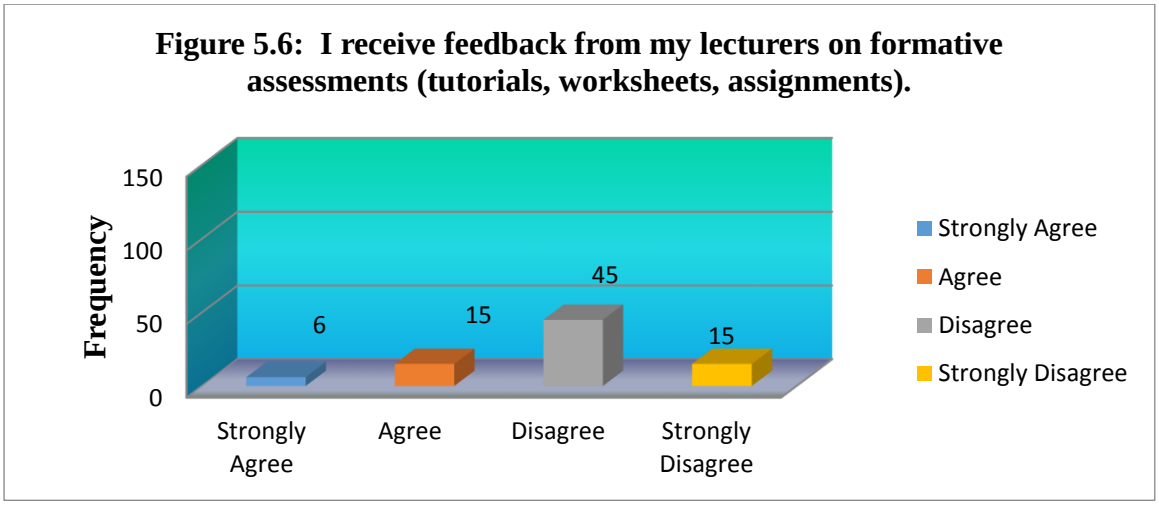
Stellenbosch University https://scholar.sun.ac.za

Figure 5.5: There are sufficient summative assessments to prepare me for my examinations.



With respect to whether there are sufficient summative assessments to help students prepare for examinations, 77.8% (n=63) strongly disagreed or disagreed. Although 17.3% agreed (n=14), only 4.9% (n=4) strongly agreed that there were sufficient summative assessments to help students prepare for examinations.

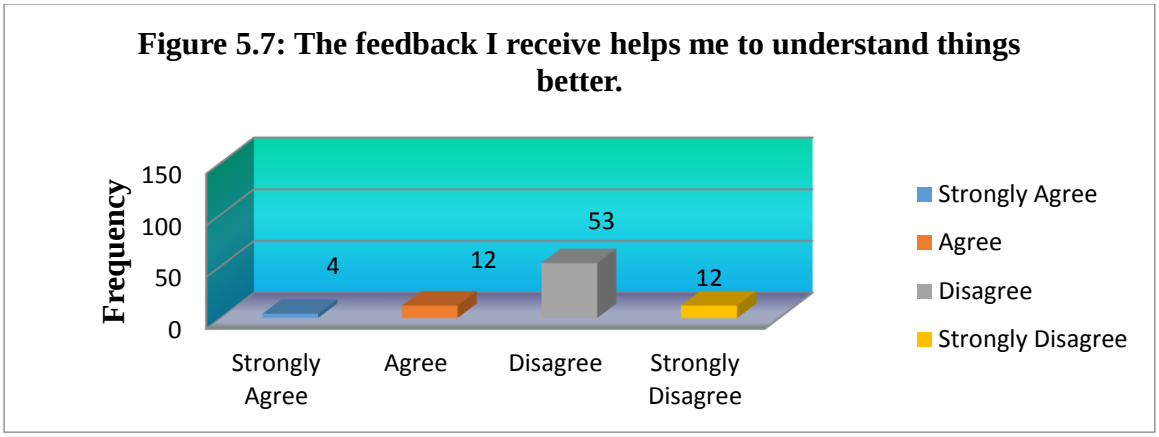
Figure 5.6: I receive feedback from my lecturers on formative assessments (tutorials, worksheets, assignments).



A large proportion, 55.6% of the students, disagreed that they receive feedback from lecturers on formative assessments, with another 18.5% strongly disagreeing. Despite 18.5% of the students agreeing (n=15), only 7.4% strongly agreed (n=6).

Stellenbosch University https://scholar.sun.ac.za

Figure 5.7: The feedback I receive helps me to understand things better.



With respect to Figure 5.7, 80.2% of the students strongly disagreed or disagreed with the statement that the feedback they get helps them to understand things better (n=65). Only 19.7% of the students indicated that the feedback they receive helps them understand things better (n=16).

Figure 5.8: The feedback shows me how to do better next time.

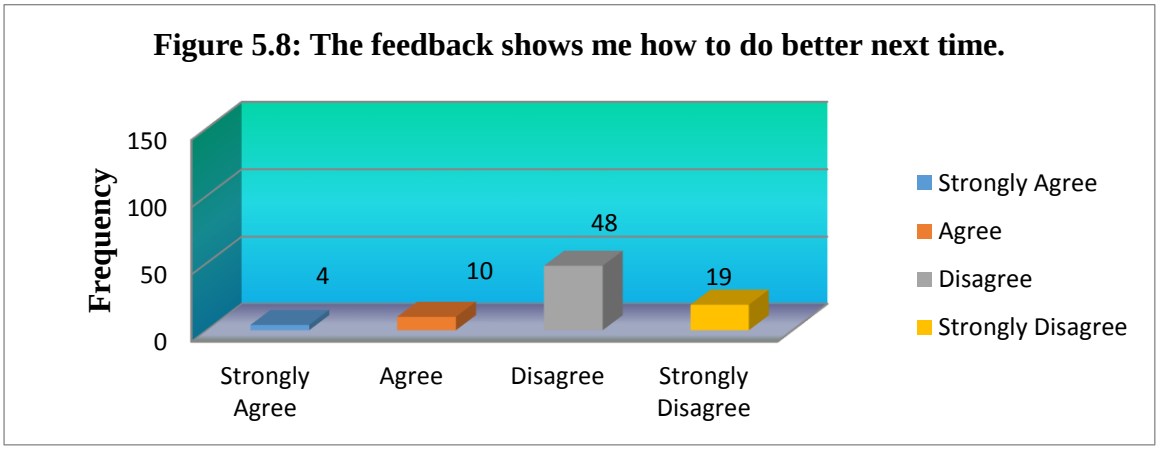
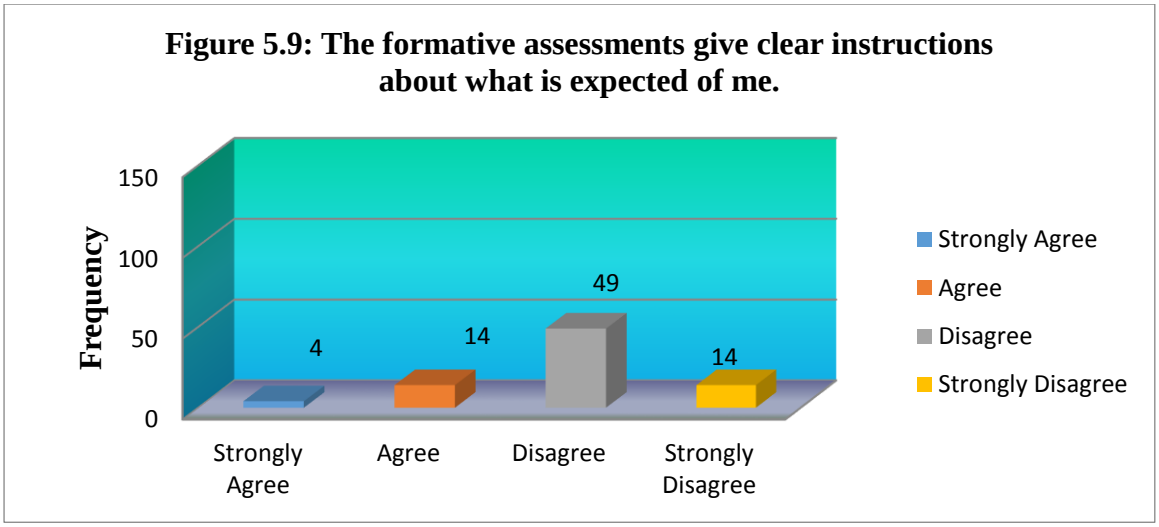


Figure 5.8 indicates that 82.8% of the students strongly disagreed or disagreed that the feedback shows them how to do better next time (n=67). Only 17.2% agreed or strongly agreed that the feedback helps them to do better the next time (n=14).

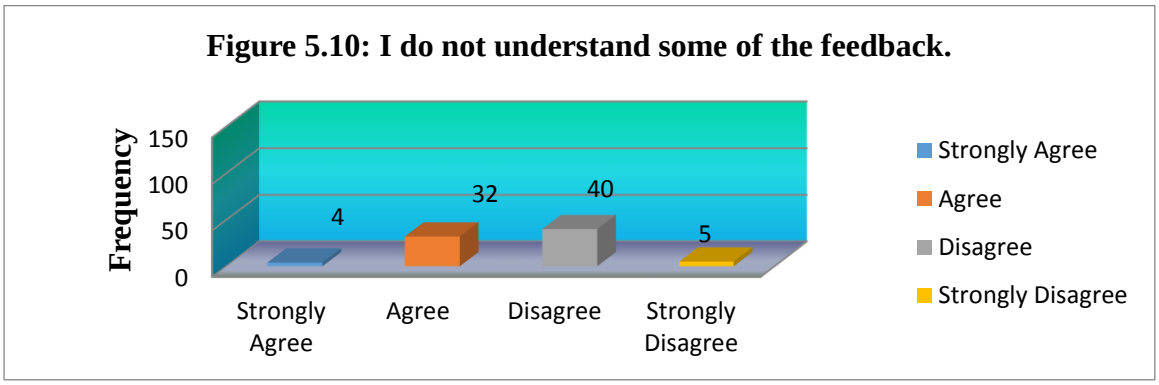
Figure 5.9: The formative assessments give clear instructions about what is expected of me.

Stellenbosch University https://scholar.sun.ac.za



The majority of the first year students, that is 77.8%, strongly disagreed or disagreed that the formative assessments give clear instructions about what is expected of them (n=63). In comparison, 22.2% of the students agreed or strongly agreed (n=18).

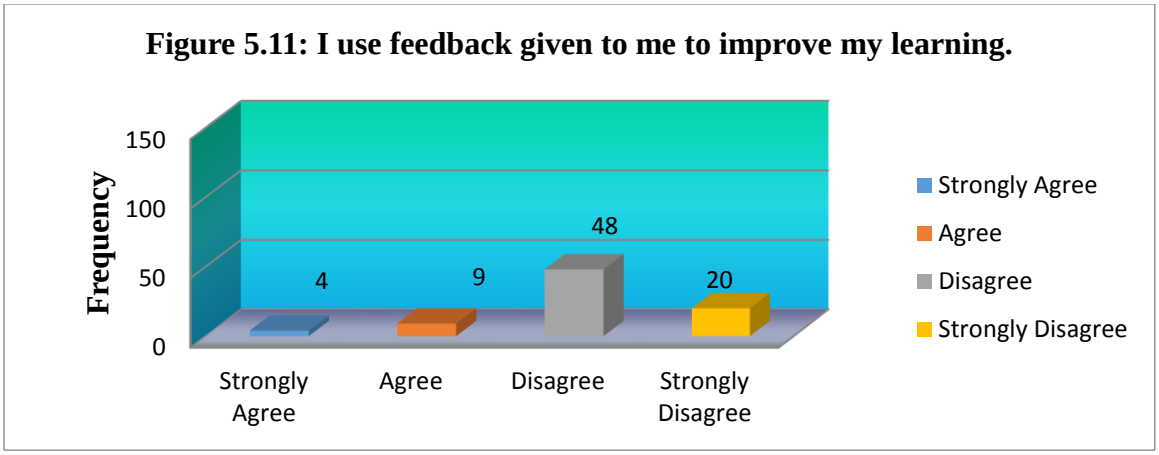
Figure 5.10: I do not understand some of the feedback.



A fair proportion of the students, that is 55.6% disagreed or strongly disagreed that they did not understand some of the feedback (n=45). The remaining 44.4% of the students either agreed or strongly agreed (n=36).

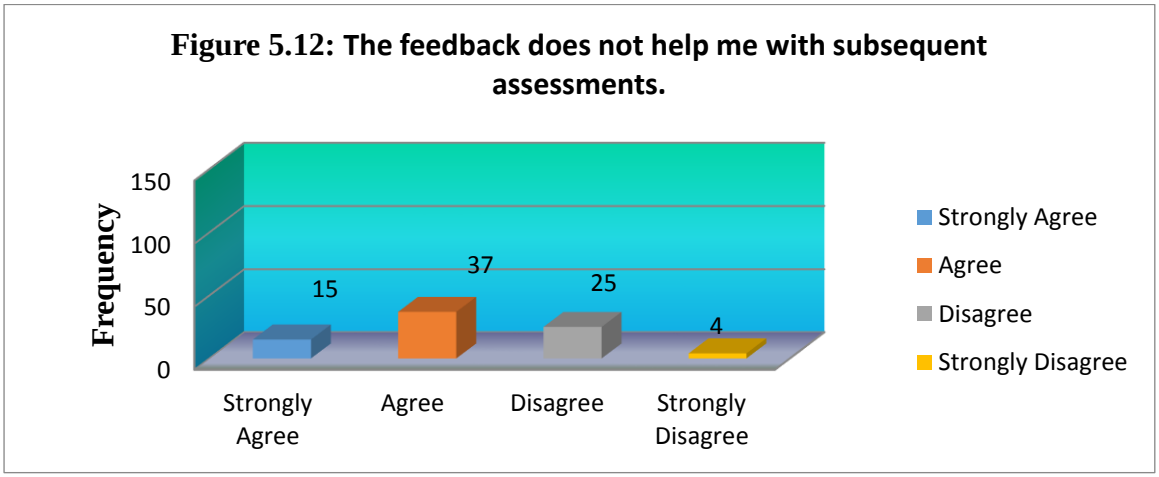
Stellenbosch University https://scholar.sun.ac.za

Figure 5.11: I use feedback given to me to improve my learning.



While 84% of the students disagree or strongly disagree that they use feedback given to improve their learning (n=68), only 16% of the students indicated that they use feedback given to help improve their learning (n=13).

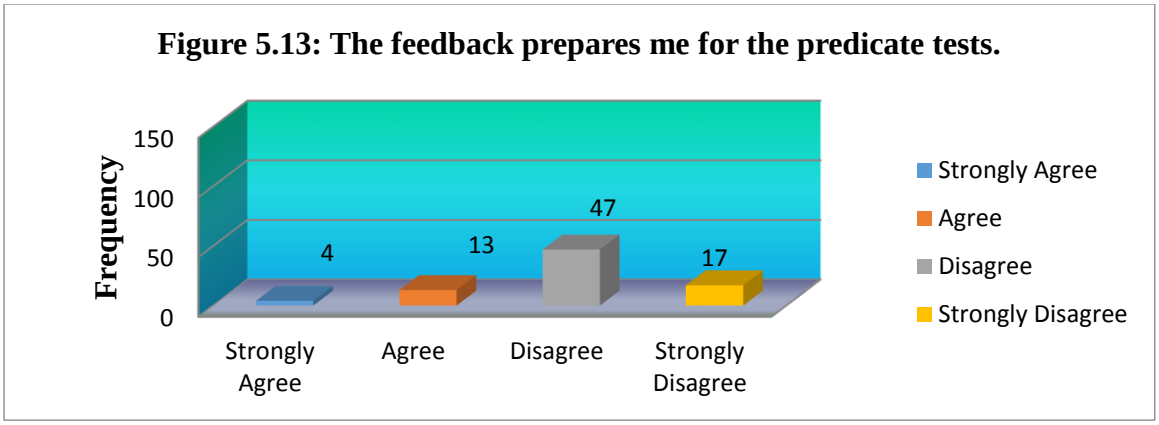
Figure 5.12: The feedback does not help me with subsequent assessments.



While 64.2% of the students indicated that they strongly agree or agree that the feedback does not help them with subsequent assessments (n=52), 35.8% of the students strongly disagreed or disagreed (n=29).

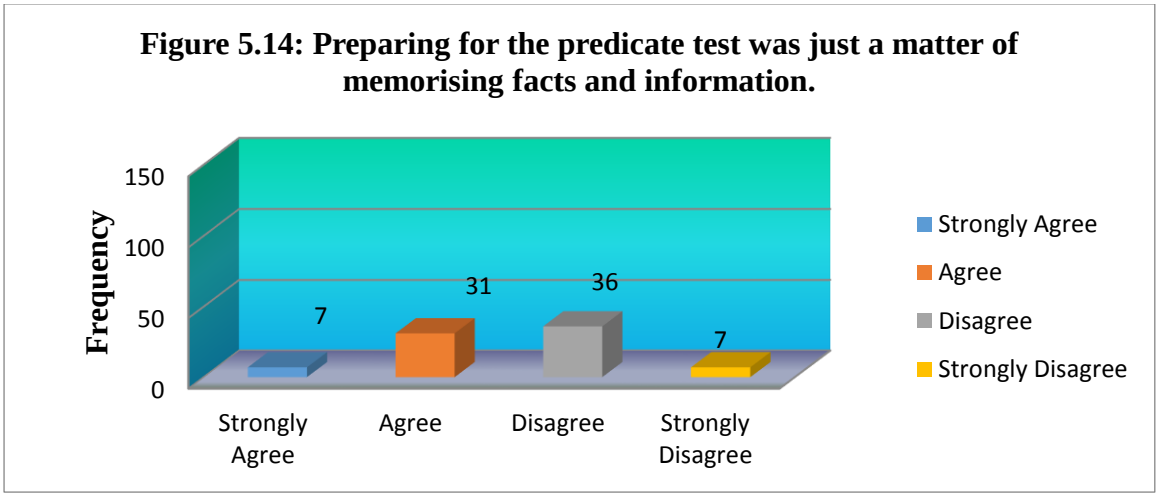
Stellenbosch University https://scholar.sun.ac.za

Figure 5.13: The feedback prepares me for the predicate tests.



The majority of the students, that is 79%, strongly disagreed or disagreed that the feedback prepares them for predicate tests (n=64). Only 21% of the students indicated their agreement or strong agreement that the feedback prepares them for predicate tests (n=17).

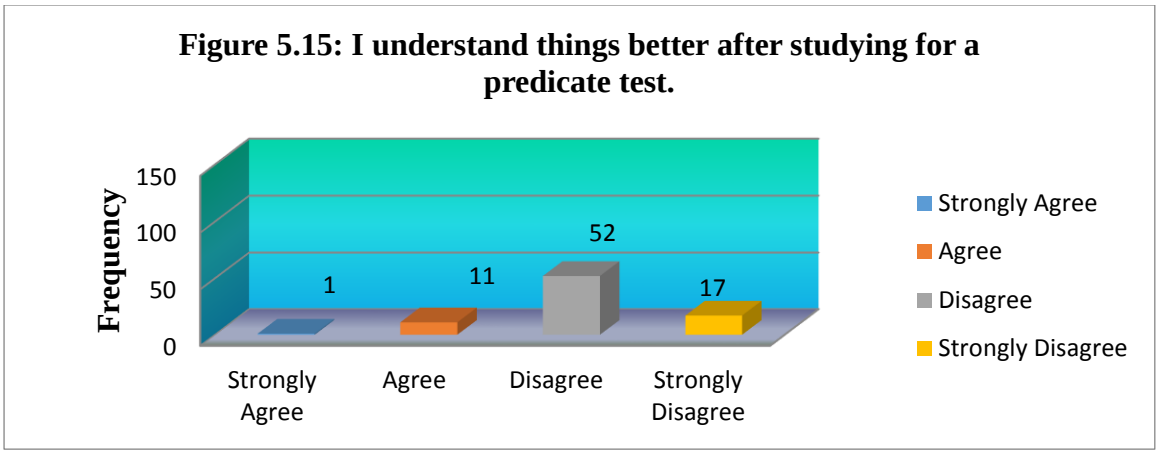
Figure 5.14: Preparing for the predicate test was just a matter of memorising facts and information.



Slightly more than half the students, that is 53% strongly disagreed or disagreed that preparing for the predicate test was just a matter of memorising facts and information (n=43). The remaining 47% either agreed or strongly agreed (n=38).

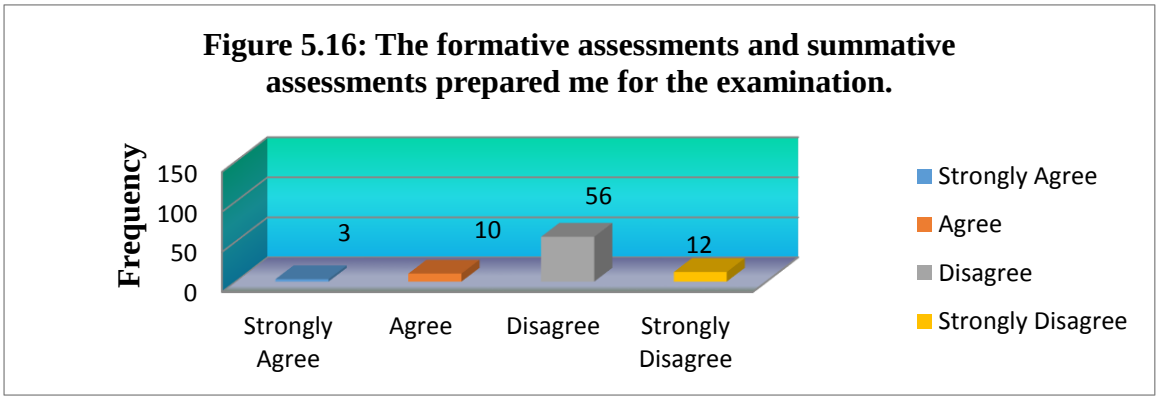
Stellenbosch University https://scholar.sun.ac.za

Figure 5.15: I understand things better after studying for a predicate test.



Most of the students, that is 85.2% indicated strong disagreement or disagreement with understanding things better after studying for a predicate test (n=69). The remaining 14.8% strongly agreed or agreed that they understood things better after studying for a test (n=12).

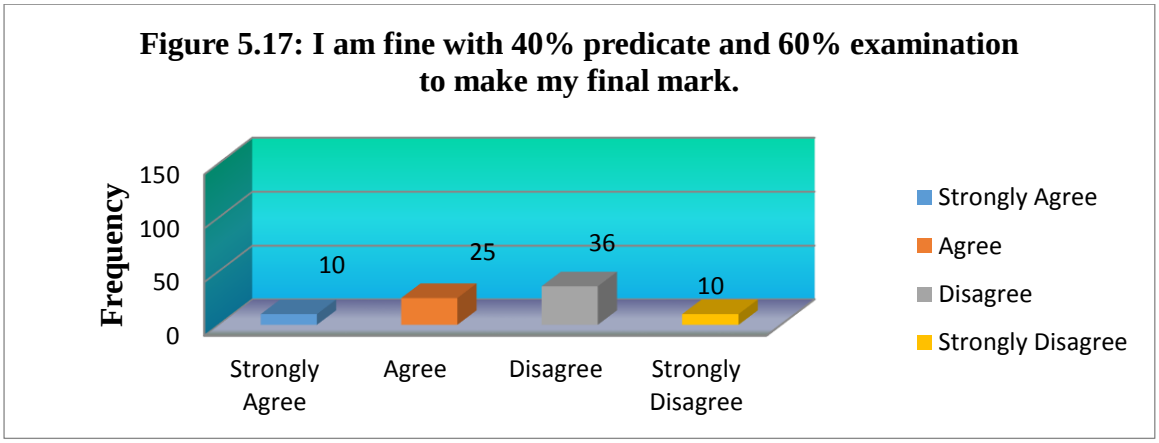
Figure 5.16: The formative assessments and summative assessments prepared me for the examination.



Those that strongly disagreed or disagreed constituted 83.9% of the students when asked whether formative and summative assessments prepared them for the examination (n=68). Students who felt that the formative and summative assessments prepared them for the examination comprised 16.1% of the respondents (n=13).

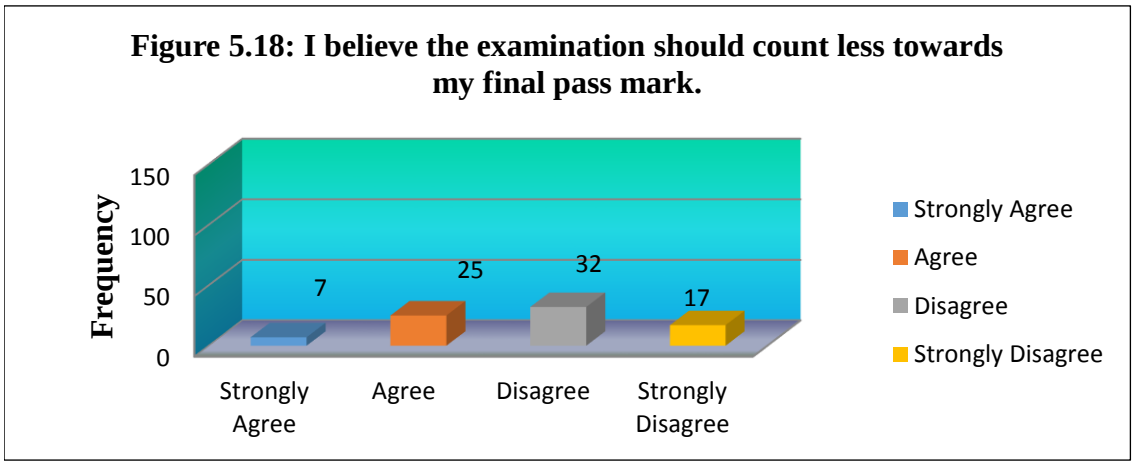
Stellenbosch University https://scholar.sun.ac.za

Figure 5.17: I am fine with 40% predicate and 60% examination to make my final mark.



The majority of the students, that is 56.7%, strongly disagreed or disagreed with a 40% predicate and 60% examination mark to make their final mark (n=46). The remaining 43.3% either strongly agreed or agreed (n=35).

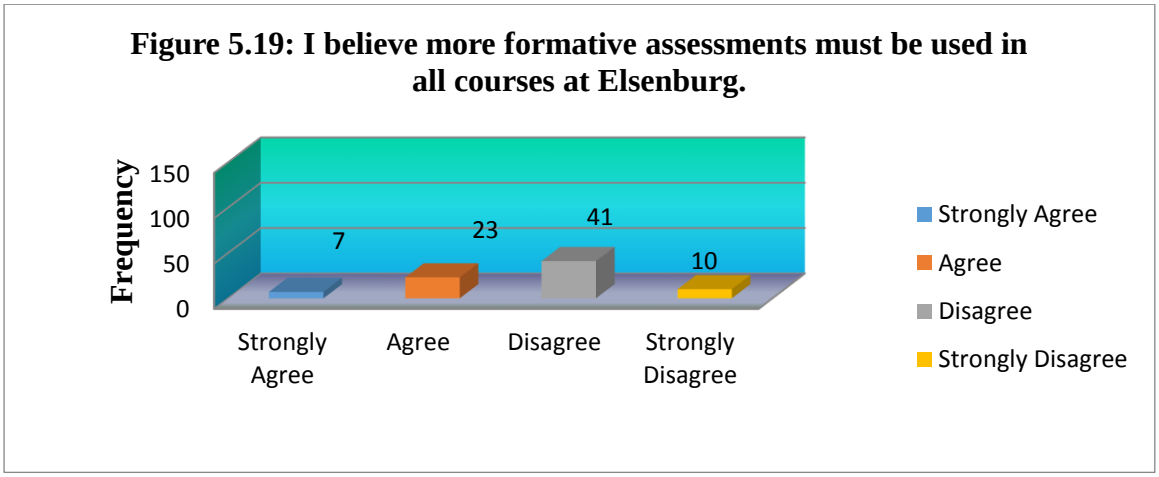
Figure 5.18: I believe the examination should count less towards my final pass mark.



The majority of the students, that is 60.5%, strongly disagreed or disagreed that the examination should count less towards their final pass mark (n=49). Those that strongly agreed or agreed constituted 39.5% of the students (n=32).

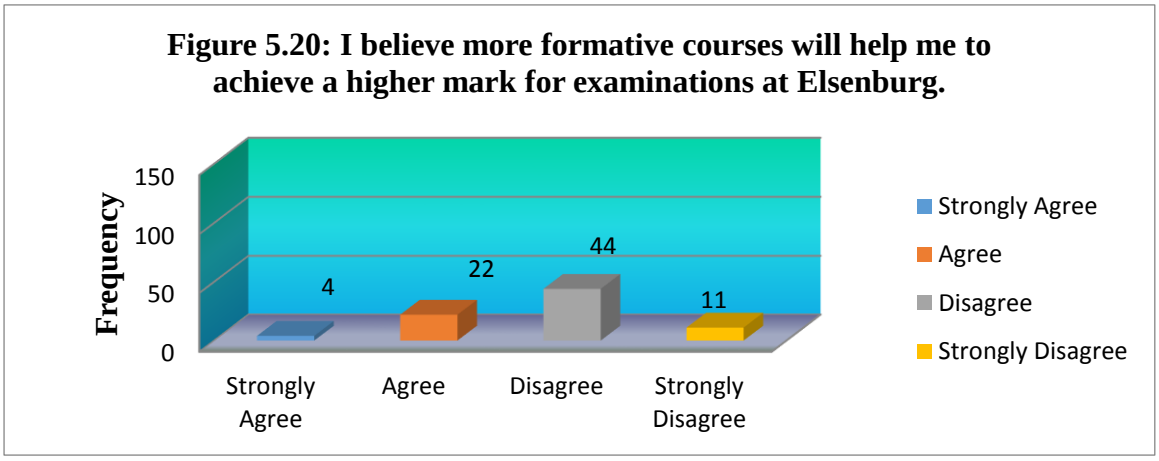
Stellenbosch University https://scholar.sun.ac.za

Figure 5.19: I believe more formative assessments must be used in all courses at Elsenburg.



Most of the students, that is 62.9% strongly disagree or disagree that more formative assessments must be used in all courses at Elsenburg (n=51). The remaining 37.1% either strongly agreed or agreed (n=30).

Figure 5.20: I believe more formative courses will help me to achieve a higher mark for examinations at Elsenburg.



Although 67.9% of the students strongly disagreed or disagreed that more formative courses will help them to achieve a higher mark for examinations at Elsenburg (n=55), 32.1% either strongly agreed or agreed that they would (n=26).

Stellenbosch University https://scholar.sun.ac.za

5.2.2 Synthesis of section 5.2.1.2

This subsection reports on data generated from student questionnaires administered to first year EATI students.

The results show that the majority of students were not familiar with the terminology used in education as it relates to formative and summative assessments. In both cases more than 70% of the students were not familiar with both terms. On the issue of terminology usage and understanding, it is clear from the results that students do not grasp the concepts of formative and summative assessments. This clearly indicates that communication regarding what homework, worksheets and class tests are, is lacking when teachers (and in the case of EATI lecturers) engage with students.

The majority of the students (71.7%) were not aware that EATI had an assessment policy. In addition, students do not feel there are sufficient formative and summative assessments to prepare them for tests and examinations.

Most students (74.1%) indicated that they did not receive feedback from their lecturers on formative assessments, with 80.2% disagreeing that the feedback helps them to understand things better. For the most part, students did not experience being given clear instructions about what is expected of them (77.8%), with 55.6% understanding the feedback given to them. A plausible reason might be that students' responses about understanding feedback and the need for more formative assessments could be skewed by them not getting feedback and/ or not knowing what formative assessment is.

Given that so many did not understand the feedback, it is plausible then that 84% would not use feedback to improve their learning, and 64.2% feel that the feedback does not help them with subsequent assessments. A further 79% felt that the feedback did not prepare them for predicate tests and 83.9% felt that the formative and summative assessments did not prepare them for an examination.

Students also did not seem to be in agreement about whether it was advantageous to do traditional fact reporting and memorisation to help them to be successful in predicates tests. A slight majority of the students felt that simply memorising facts did not prepare them for a predicate test. It is clear that the proper follow up questions could have provided greater detail in responses. However, when compared to Figure

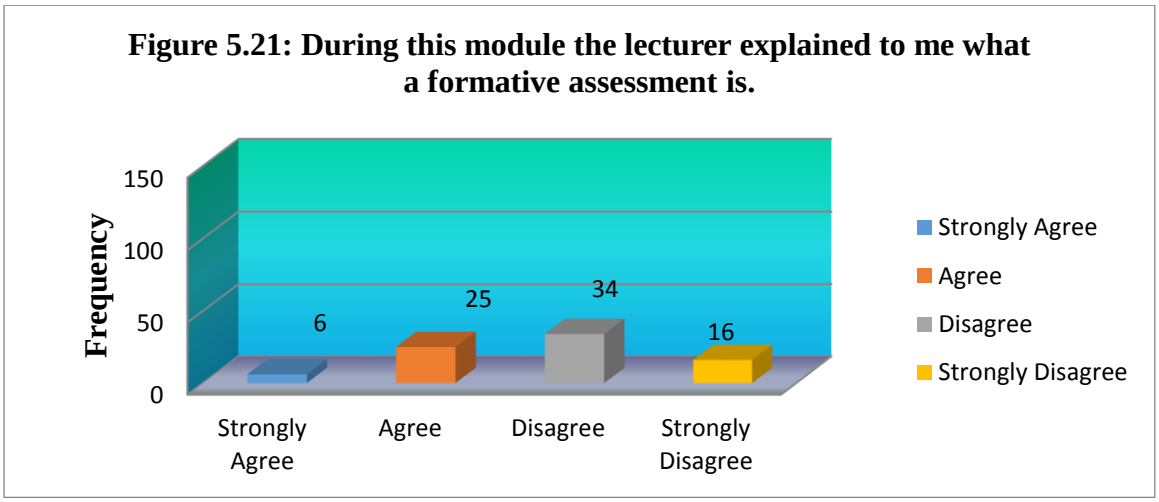
Stellenbosch University https://scholar.sun.ac.za

5.15 where students disagreed that they understood the subject matter better after studying (or preparing) for a predicate test, suggests that students may not be aware of how to use the outcomes in their respective syllabus guides. Alternatively, it may also indicate that the assessments were not appropriately aligned with learning outcomes.

Section B

This section asked students to select their highest scoring subject and apply the same statements that were presented to them in section A (for the program as a whole) to one particular subject. This was done to gauge if students were of the opinion that the assessment practices had an impact on their academic performance.

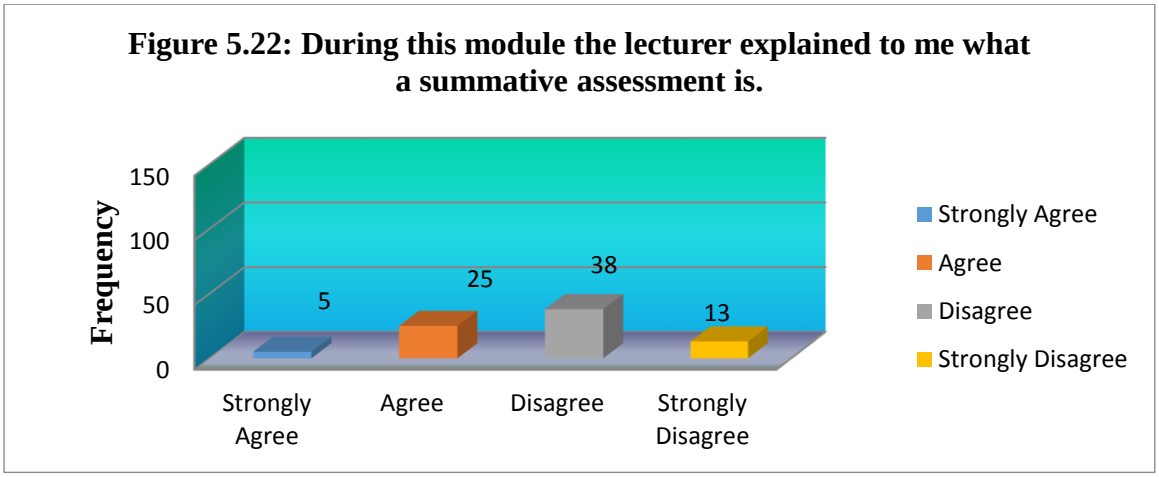
Figure 5.21: During this module the lecturer explained to me what a formative assessment is.



The majority of the students, that is 61.8%, either disagreed or strongly disagreed that during the module, the lecturer explained what a formative assessment is (n=50). The remaining 38.2% agreed or strongly agreed (n=31).

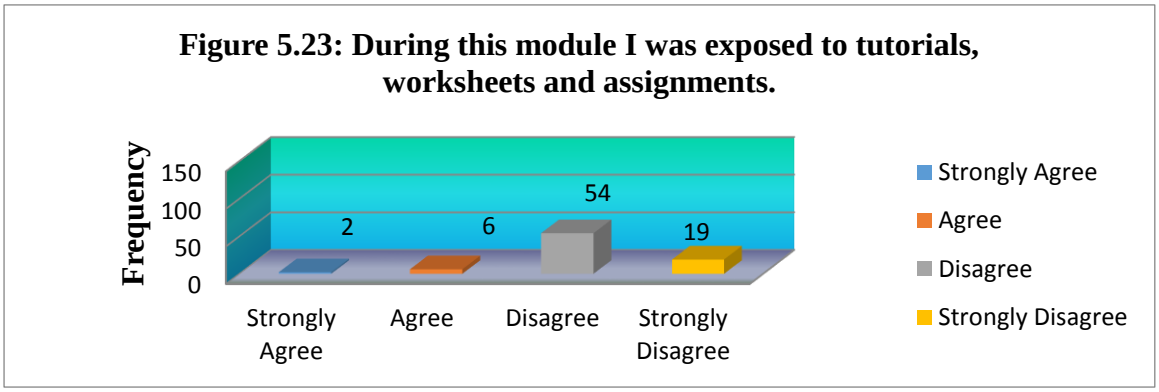
Stellenbosch University https://scholar.sun.ac.za

Figure 5.22: During this module the lecturer explained to me what a summative assessment is.



With respect to table 5.22, 62.9% disagreed or strongly disagreed that during the module, the lecturer had explained what a summative assessment is (n = 51). The remaining 37.1% agreed or strongly agreed (n=30).

Figure 5.23: During this module I was exposed to tutorials, worksheets and assignments.



An overwhelming majority, that is 90.2% either strongly disagreed or disagreed that during the module they had been exposed to tutorials, worksheets and assignments (n=73), with only 9.8% that agreed or strongly agreed (n=8).

Stellenbosch University https://scholar.sun.ac.za

Figure 5.24: During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented.

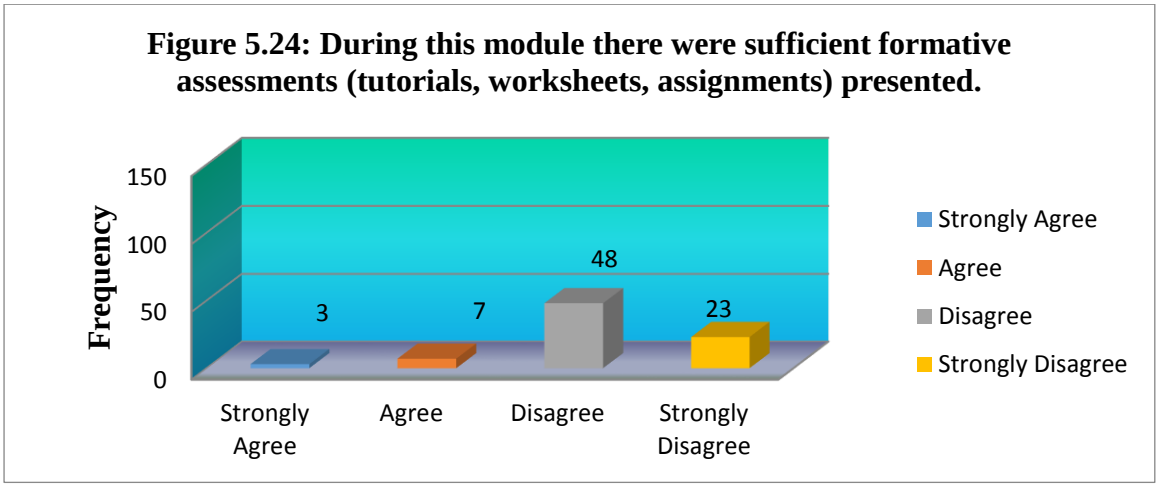
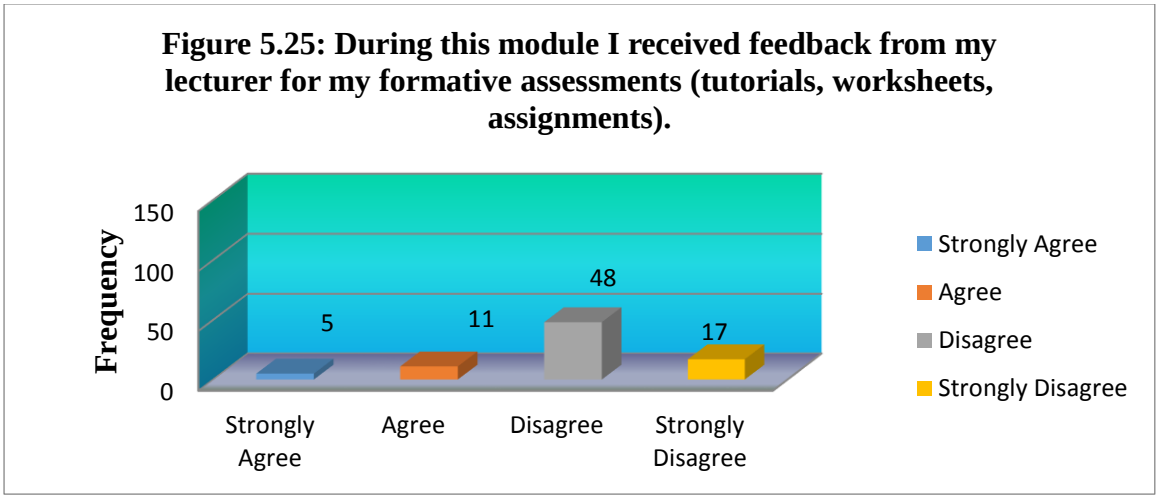


Figure 5.24 indicates that 87.7% of the students either strongly disagreed or disagreed (n=71) that there were sufficient format assessments presented, with the remaining 12.3% either agreeing or strongly agreeing (n=10).

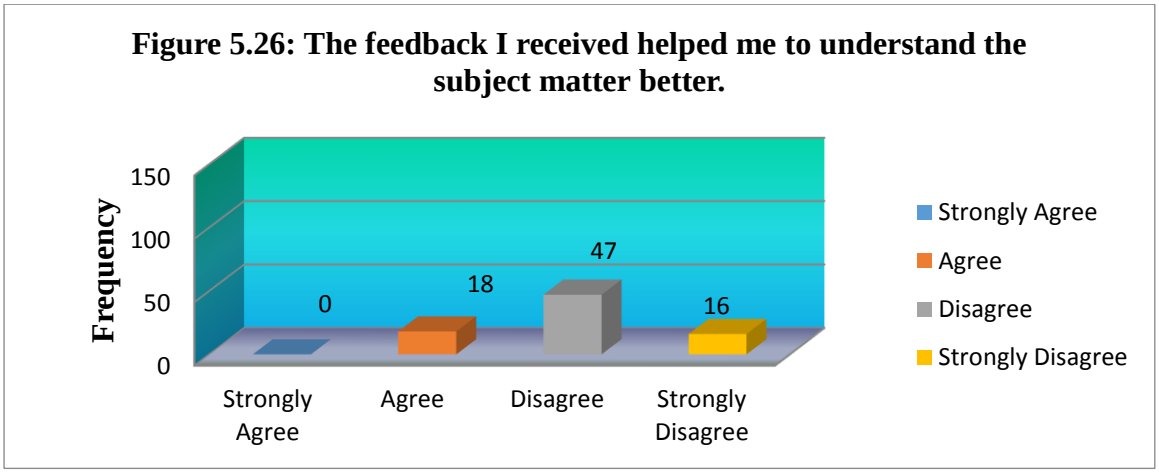
Figure 5.25: During this module I received feedback from my lecturer for my formative assessments (tutorials, worksheets, assignments).



Approximately 80.3% of the students either disagreed or strongly disagreed that during the module they received feedback from their lecturer for formative assessments (n = 65). The remaining 19.8% of the students either agreed or strongly agreed (n=16).

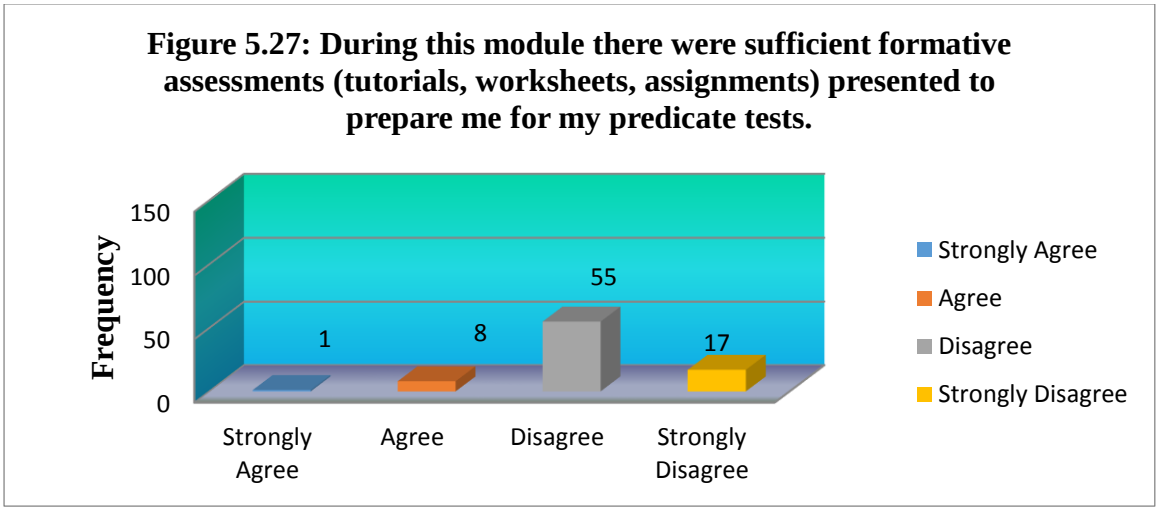
Stellenbosch University https://scholar.sun.ac.za

Figure 5.26: The feedback I received helped me to understand the subject matter better.



The majority of the students (78.8%) either strongly disagreed or disagreed with …. Only 22.2% of the students agreed (n=18).

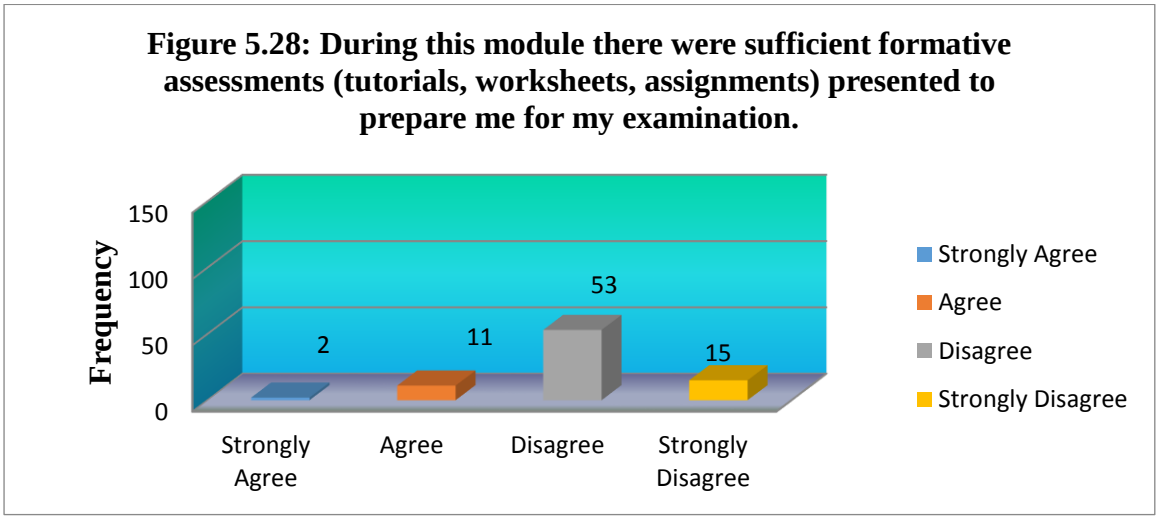
Figure 5.27: During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented to prepare me for my predicate tests.



A large proportion of the students (88.9%) strongly disagreed or disagreed with respect to whether sufficient formative assessments were presented (72). Only 11.1% agreed or strongly agreed (n=9).

Stellenbosch University https://scholar.sun.ac.za

Figure 5.28: During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented to prepare me for my examination.



The majority of the students (83.9%) either strongly disagreed or disagreed that there were sufficient formative assessments to help prepare for the examination (n=68), and the remaining 16.1% agreed or strongly agreed (n=13).

Figure 5.29: During this module the feedback showed me how to improve and do better.

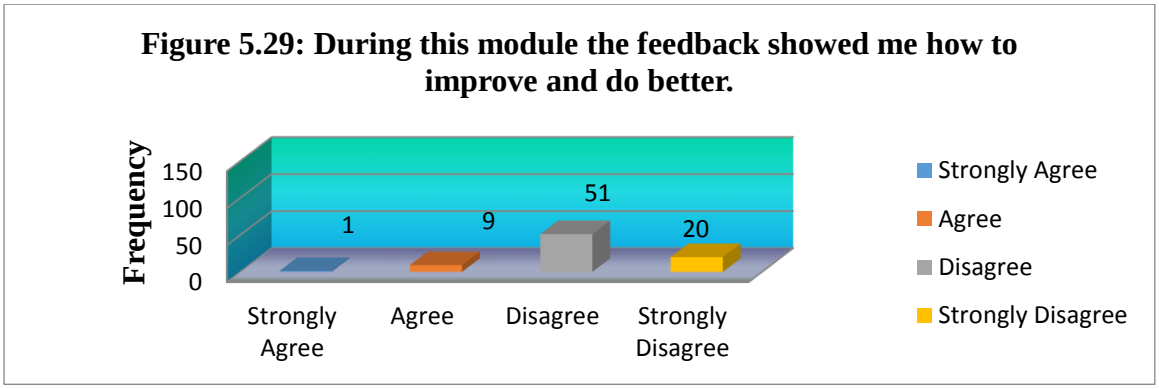
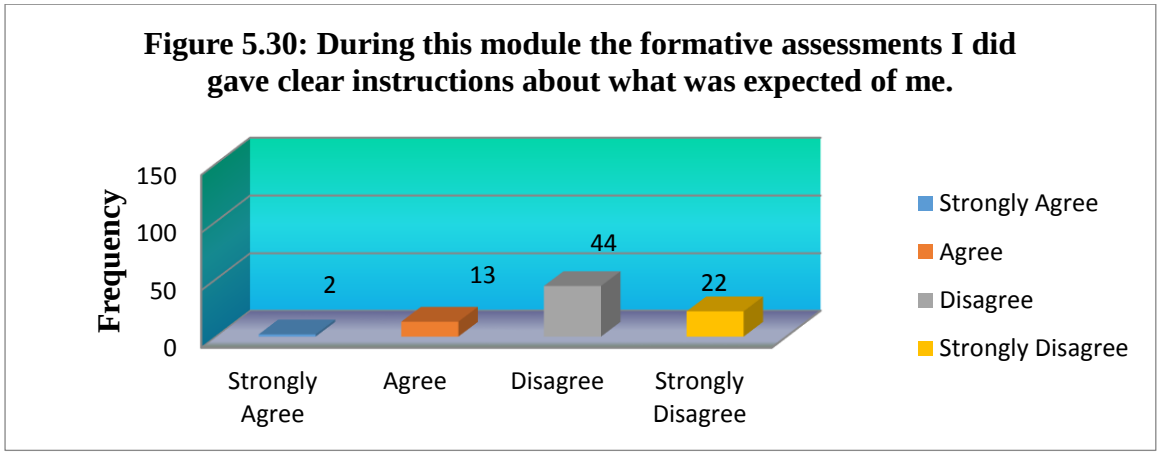


Figure 5.29 depicts how the feedback received from lecturers help students to improve and do better. Those who strongly disagreed or disagreed comprised 87.7% of the students (n=71). Only 12.3% of the students agreed or strongly agreed (n=10).

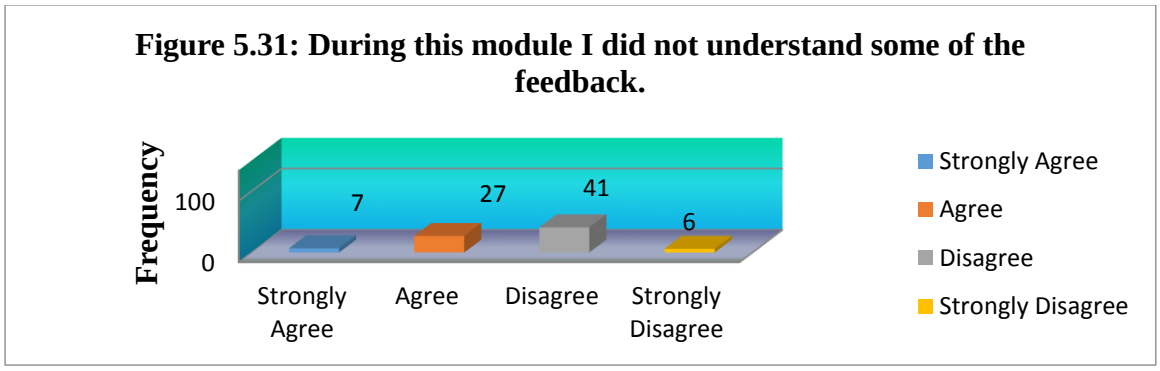
Stellenbosch University https://scholar.sun.ac.za

Figure 5.30: During this module the formative assessments I did, gave clear instructions about what was expected of me.



A large proportion of the students (81.5%) either strongly disagreed or disagreed with being given clear instructions about what was expected of students for formative assessments (n=66), with the remaining 18.5% either agreeing or strongly agreeing (n=15).

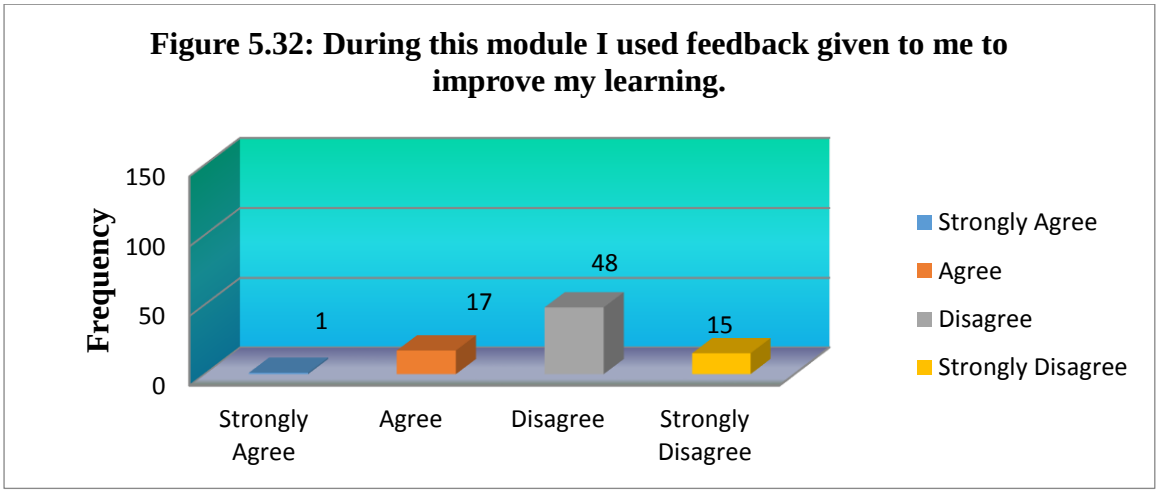
Figure 5.31: During this module I did not understand some of the feedback.



With respect to figure 5.31, 58% of the students either disagreed or strongly disagreed (n=47) that they did not understand some of the feedback. The remaining 42% of the students either agreed or strongly agreed (n=34).

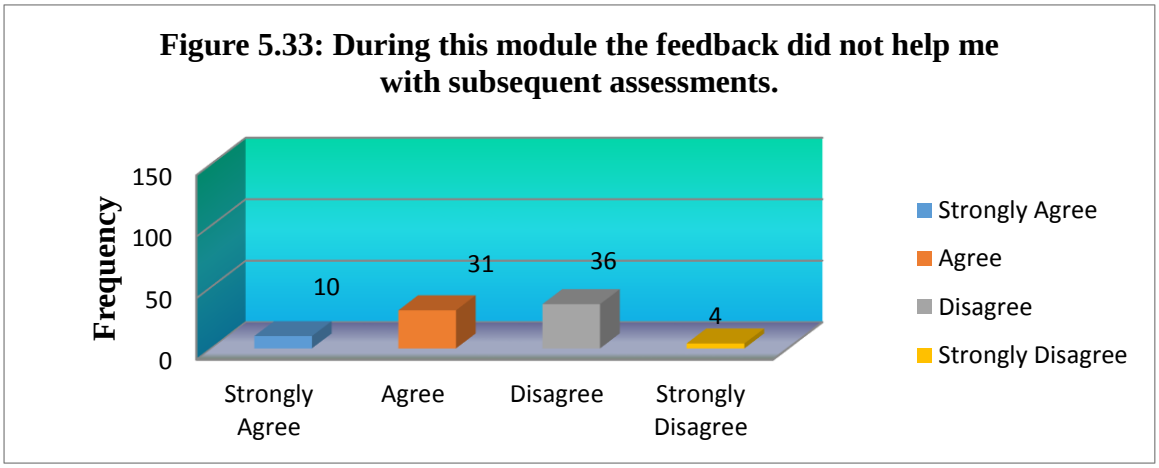
Stellenbosch University https://scholar.sun.ac.za

Figure 5.32: During this module I used feedback given to me to improve my learning.



The majority of the students (87.8%) either strongly disagreed or disagreed (n=63) that they used feedback given to improve their learning. The remaining 22.2% either agreed or strongly agreed (n=18).

Figure 5.33: During this module the feedback did not help me with subsequent assessments.



A slight majority of the students (50.6%) either agreed or strongly agreed that the feedback received during the module did not help them with subsequent assessments (n=41). The remaining 49.4% either disagreed or strongly disagreed (n=40).

Stellenbosch University https://scholar.sun.ac.za

Figure 5.34: During this module the feedback prepared me for the predicate tests.

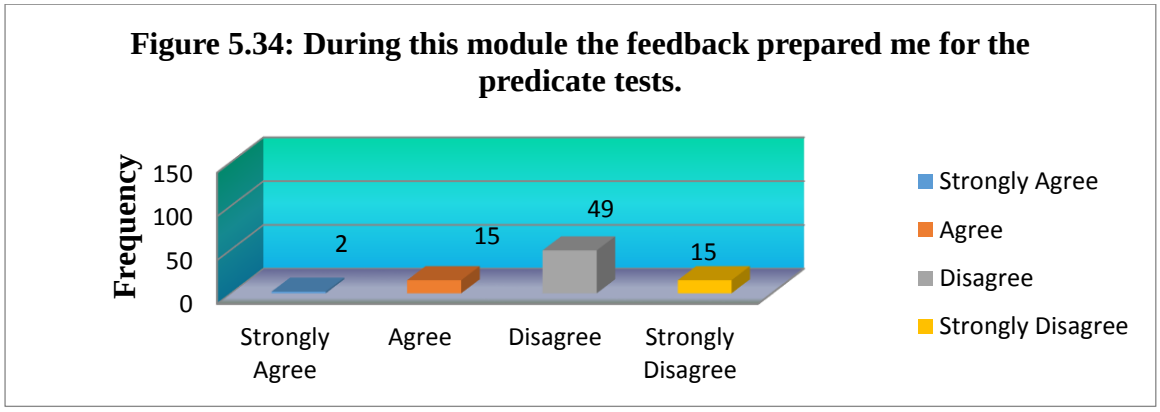
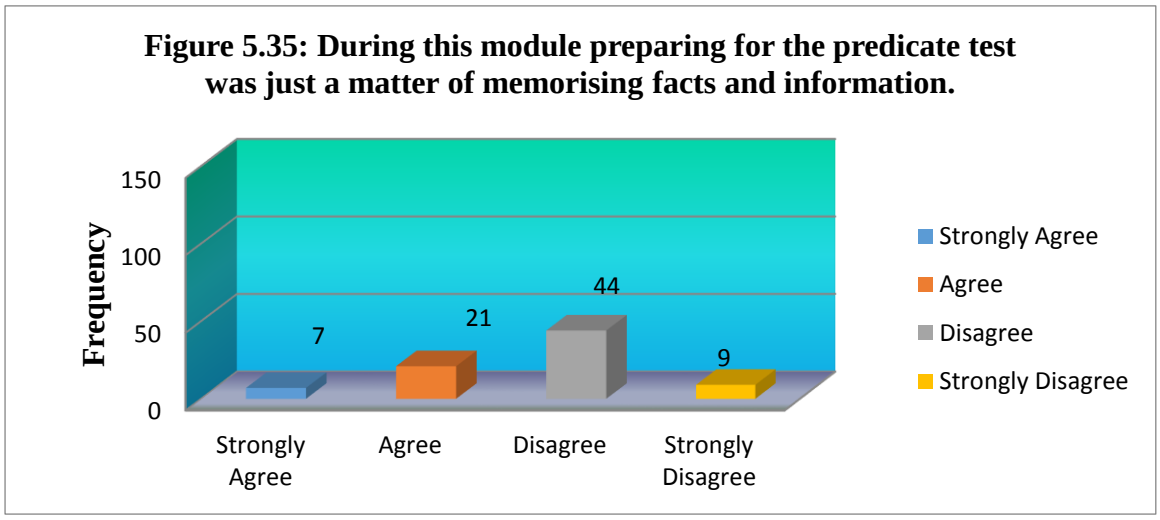


Figure 5.34 illustrates that the majority of the students (79%) either disagreed or strongly disagreed that the feedback prepared them for predicate tests (n=64). The remainder (21%) either agreed or strongly agreed (n=17).

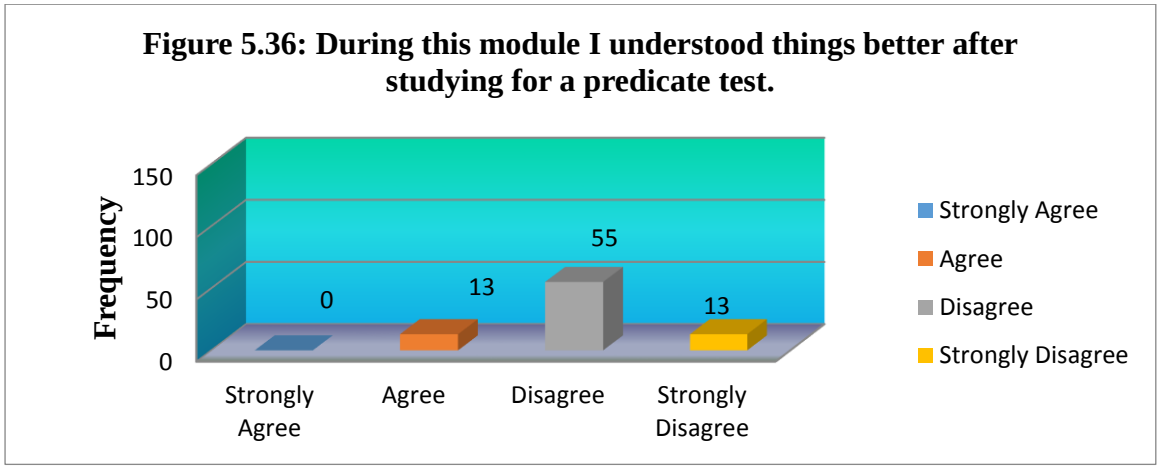
Figure 5.35: During this module preparing for the predicate test was just a matter of memorising facts and information.



While 65.4% of the students indicated that they either strongly disagreed or disagreed with the statement that preparing for the predicate test was just a matter of memorising facts and information (n=53), the remaining 34.6% either strongly agreed or agreed (n=28).

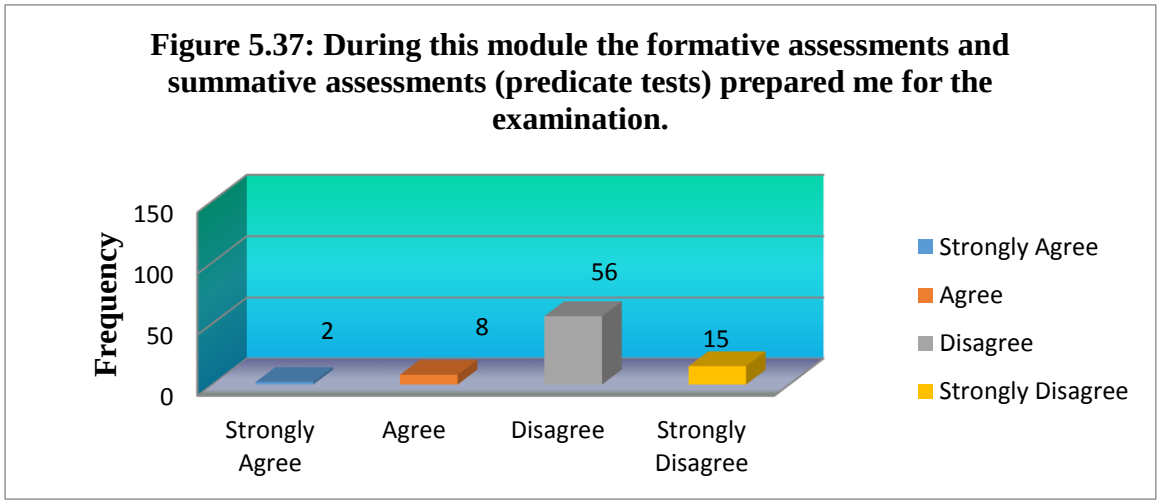
Stellenbosch University https://scholar.sun.ac.za

Figure 5.36: During this module I understood things better after studying for a predicate test.



The majority of the students (86.9%) either strongly disagreed or disagreed with respect to understanding things better after studying for a predicate test (n=68). The remaining 16.1% agreed (n=13).

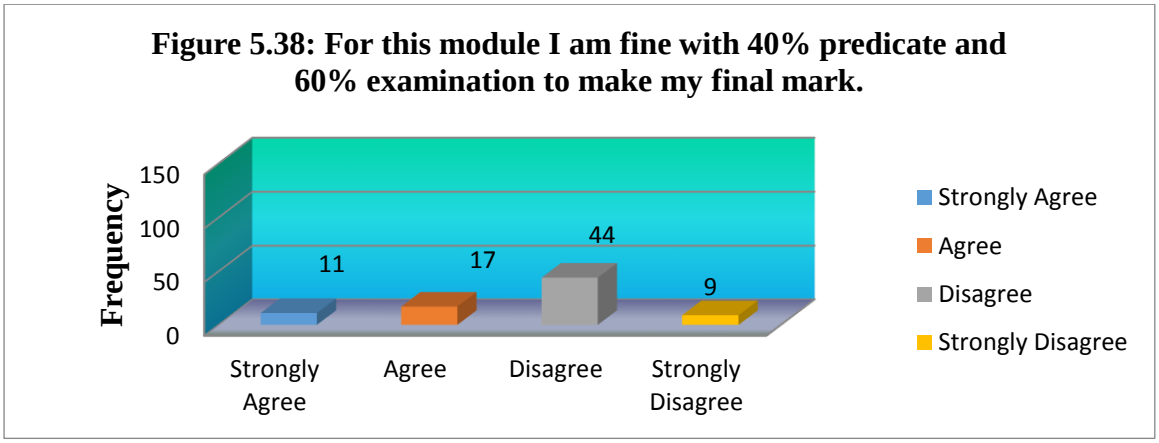
Figure 5.37: During this module the formative assessments and summative assessments (predicate tests) prepared me for the examination.



The majority of the students (87.6%) either disagreed or strongly disagreed that the formative and summative assessments prepared them for the examination (n=71). The remaining 12.4% either agreed or strongly agreed (n=10).

Stellenbosch University https://scholar.sun.ac.za

Figure 5.38: For this module I am fine with 40% predicate and 60% examination to make my final mark.



A larger proportion of the students (65.4%) either strongly disagreed or disagreed that they are fine with 40% predicate and 60% examination to make the final mark (n=53). The remaining 34.6% of the students agreed or strongly agreed (n=28).

Figure 5.39: For this module I believe the examination should count less towards my final pass mark.

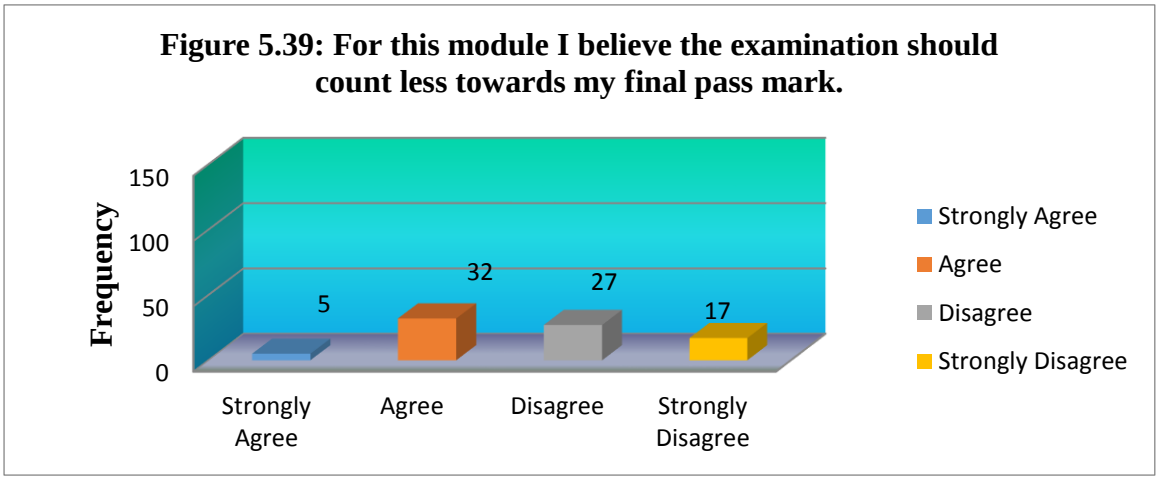


Figure 5.39 illustrates that a slight majority of the students (54.3%) strongly disagreed or disagreed (n=44) that they believe the examination should count less towards the final pass mark, with the remaining 45.7% either agreeing or strongly agreeing (n=37).

Stellenbosch University https://scholar.sun.ac.za

5.2.1.3 Results from lecturer questionnaires

Qualitative results (Section A Results)

Lecturers were asked the following questions in this section:

Respondent	Question 1: What module do you present at Elsenburg?
1 (R1)	First Year: Soil Science 110, Natural Resource Management 142 Senior years: Natural Resource Management 210, 242, 311 and 341
2 (R2)	Agricultural Engineering 130 and Agricultural Engineering 142; Agricultural Engineering 210 and Agricultural Engineering 230
3 (R3)	Viticulture and Oenology
4 (R4)	Agronomy 240; Agronomy 322; Agronomy 332; Agronomy 342; Crop Protection 110; Crop Protection 242
5 (R5)	Agricultural Extension
6 (R6)	Principles of Agricultural Science 121 (Applied Mathematics)
7 (R7)	Animal Production 150
8 (R8)	Soil Science 112 and Soil Science 212 and Agronomy 130 and Agronomy 212

This question was included as proof that the participant lecturers had personal experience of teaching first-year students. All the participant lecturers taught first-year students either in the B.Agric or Higher Certificate (HC) programme. Interestingly many lecturers teach more than one module at EATI which indicates that they are exposed to a diverse student body and this relates to the changed and increasingly diversified student population in higher education (Cross, 2004) and amplifies the need for lecturers to take note of students' assumptions, motives, intentions, and previous knowledge that may influence student success (Byrne and Flood, 2005).

Stellenbosch University https://scholar.sun.ac.za

Respondent	Question 2: Do you think your subject (or an equivalent subject at school) should be an admission requirement for the B.Agric programme? If yes, explain why.
1 (R1)	No. The admission criteria have been created to address a training need for learners that cannot get into university due to their subject choices and performances but want to have a career in agriculture.
2 (R2)	No. Maths have definite advantages. Other modules do integrate with my subject. Students do not have problems adapting. The bridging course have advantages.
3 (R3)	No.
4 (R4)	Yes; it gives students the necessary background.
5 (R5)	No.
6 (R6)	Yes. Mathematics (GR 12/50%) and Mathematical Literacy (Gr 12/60%) are both admission requirement subjects.
7 (R7)	It would definitely help if they have Biology, without the basic knowledge of digestion, nutrients, etc they will have to work a little harder to comprehend the module.
8 (R8)	No; but Agricultural Science, Mathematics and Physical Science at school level are highly recommended.

Of the 8 respondents, 5 did not feel that this was necessary. For example, respondent 1 commented: “The admission criteria have been created to address a training need for learners that cannot get into university due to their subject choices and performances but want to have a career in agriculture.

A second respondent commented that “Maths has definite advantages. Other modules do integrate with my subject. Students do not have problems adapting. The bridging course has advantages”. Another respondent felt that …. “Agricultural Science, Mathematics and Physical Science at school level are highly recommended”.

Stellenbosch University https://scholar.sun.ac.za

On the contrary those that indicated yes suggested that “it gives students the necessary background”. Similarly, another respondent commented that “Mathematics (GR 12 / 50%) and Mathematical Literacy (Gr 12 / 60%) are both admission requirement subjects”. Yet another commented that “It would definitely help if they have Biology, without the basic knowledge of digestion, nutrients, etc. they will have to work a little harder to comprehend the module”.

Respondent	**Question 3: Would you say students in their first year are focussed or not focussed on their studies? What factors could influence their academic performance?**
1 (R1)	Students focus on the subjects that they did not have in school. The lecturer that is capable to enforce the highest importance of his/her subject.
2 (R2)	Most of the students are focussed. There are the occasional ones that lose interest. Some drop out. Lack of attending classes occur in second year.
3 (R3)	It is difficult for me to comment on this question.
4 (R4)	Many students find it difficult to adjust or to cope with the work volume. The lack of an academic culture also plays a role.
5 (R5)	Not focussed. The “new” freedom – out of school and progress not constantly monitored by parents and teachers like in a school set-up.
6 (R6)	I think about 60% of the students are fairly focussed on their studies. Study culture at Elsenburg. Social life at Stellenbosch. Students want to be spoon-fed.
7 (R7)	Not really, they are not really focused, with the newly found freedom of being a student and it is very hard for them to be efficient in time management.
8 (R8)	Definitely not focussed; especially male students. Immaturity and lack of Emotional intelligence as well as self-discipline. Previously; all male students had to do compulsory military service and were much more mature and responsible at commencement of their studies. Lack of proper career guidance at school level and not considering an internship at a company in their prospective study field. Poor class and practical attendance. Bottom line – not all students are tertiary “study material”- we also need “blue collar” workers in this country.

When faced with this question, one lecturer suggested that “Students focus on the subjects that they did not have in school”. Another argued that: “Most of the students are focussed. There are the occasional ones that lose interest”. While one respondent suggested that students are “Not focussed”. The “new” freedom – out of school and progress not constantly monitored by parents and teachers like in a school set-up, another suggested that “about 60% of the students are fairly focussed on their studies”.

Stellenbosch University https://scholar.sun.ac.za

Respondent	Question 4: Do you think student support is important in the first year? How can student support help students achieve their academic goals?
1 (R1)	It is important in all years. Poor performances are by lecturers ascribed to students' inability to study. But many students study and not perform and not have the reasons why they perform poorly. In this way an expert on early identification of such problems and to solve it is required. The lecturer is not this person. And is not equipped to do this early identification and the eventual support.
2 (R2)	Yes, by all means. Support to keep students positive. They need motivation and to see their problems in perspective. They tend to enlarge problems. Students need tips on how to organise time and planning.
3 (R3)	Yes, it is. Tutor programmes can help students to achieve their academic goals.
4 (R4)	Yes; courses in study methods and time management should be presented. Psychology services should be readily available.
5 (R5)	Yes, it is important but not in the sense of constant monitoring, rather tools to guide them to become adult learners.
6 (R6)	Yes. Students must have someone to go to when they struggle.
7 (R7)	Yes, I agree, this helps them to do the transition from higher education to tertiary level.
8 (R8)	Yes; like the ABC course and tutorial programme at Elsenburg. Students are better orientated and equipped for their studies. Bottom line – at the end of the day students must take responsibility for their own studies and future actions.

All the respondents agreed that support services were required for first-year students, albeit offering varied explanations and justification for these support services. While some respondents mentioned the importance of tutorial support programmes, others argued that support was necessary in helping students transition from high school to tertiary studies. While some reference was made to provide support to assist first year students improve their study methods, organise their time, and with early identification of potential problems, one respondent proposed the appointment of a specialised unit to provide psychological support services to students.

Stellenbosch University https://scholar.sun.ac.za

Respondent	Question 5: Do you think the time table has an effect on the students' performance? In what way?
1 (R1)	It does not but lecturers that are not sticking to the credit load of modules overload students and that impact on their performance.
2 (R2)	Yes, It's a start to help with organising studies.
3 (R3)	No.
4 (R4)	No.
5 (R5)	No. The set curriculum, credit value and NQF level, thus notional hours are standards and indicative of the complexity and appropriate level of the course for which students registered.
6 (R6)	No.
7 (R7)	The time table, is only created in a way that there are no clashes between classes, lecturing rooms and lectures, but it does not take the students load and available time into consideration.
8 (R8)	Not, really – it's one of the realities of studying at tertiary institutions. It's rather all about effective time management and planning and drawing up their own study time table and to continuously keep up with the work load and –volume during the semester.

There was an almost unanimous response that the time-table did not have an adverse impact on students' academic performance. Varied explanations arose relating to lecturers not adhering to the credit load of modules to students needing to accept greater accountability in managing their time, planning accordingly and ensuring that they keep pace with the workload which would ultimately impact on their academic performance.

Stellenbosch University https://scholar.sun.ac.za

Respondent	Question 6: Do you think the exam roster has any effect on the students' performance? If so, in what way?
1 (R1)	No it does not. A few years back the timetable was blindly compiled but now the study fields with majors are taken into account for the compilation.
2 (R2)	At first I thought that subjects that are written at the end of exam program has its disadvantages, but I find this not to be true. Students do not want to fail.
3 (R3)	Yes. Time allocation to study for the different subjects.
4 (R4)	No.
5 (R5)	At this stage yes. Assessment tend to be very much formative and the successful completion of a module weighs heavily on exam performance.
6 (R6)	No.
7 (R7)	See question 5.
8 (R8)	Same as question 5.

There were inconsistent responses from lecturers with respect to exam rosters and their impact on student academic performance. Depending on the type of assessment and the timing of an examination, time allocated to different subjects could potentially play a role in academic performance.

Respondent	Question 7: Are there any other factors you think could have an influence on student performance?
1 (R1)	Entertainment. Students must go to Stellenbosch for real entertainment and because of the trip it becomes an extensive trip that makes the student unable to attend to any academic matters for 2/3 days.
2 (R2)	Social obligations of students which includes relationships. Peer pressure..
3 (R3)	Yes. Finances and emotional well-being.
4 (R4)	Lack of an academic culture; too much pocket money. Alcohol and drug abuse.
5 (R5)	Students not focussing on performing throughout the semester and keep their best effort for final exams.
6 (R6)	Class attendance
7 (R7)	Studying something they are not interested in but they have a bursary so it is free.
8 (R8)	Too much of a social student life. Socio-economic problems in the family. Lack of interest and motivation with regard to their studies – parents "sent" children to study; whereas the child might not be interested in the least. Poor class and practical attendance.

Stellenbosch University https://scholar.sun.ac.za

A plethora of factors that could potentially impact on student academic performance were highlighted by lecturers. These ranged from:

- Peer pressure and social relationships.
- Emotional well-being and socio-economic factors
- Financial reasons
- A lack of academic focus
- Inconsistent focus during the semester
- Poor class and practical attendance; and
- Lack of motivation or interest in what they are studying.

Respondent	**Question 8: What would you single out as having the biggest impact on student learning at Elsenburg?**
1 (R1)	The stigma attached to the Elsenburg qualification and lecturers that have the tendency to only ask previous papers and students only study to pass a test and don't learn anything.
2 (R2)	The use of alcohol and even dagga. Wow!
3 (R3)	The language issue
4 (R4)	See question 7
5 (R5)	A culture of "kuier" and socialise instead of academic orientation / focus.
6 (R6)	The study culture.
7 (R7)	Different social background, some are from farms, which might have an advantage especially because it is an agricultural institution, and therefore, they will have a better frame of reference on many of the modules content.
8 (R8)	Total lack of discipline and motivation as well as immaturity. Extremely poor class and practical attendance.

When asked what they considered to be the single biggest impact on academic performance, lecturers cited social, economic, cultural and other factors. These include:

- Use of alcohol and drugs.
- Language issues
- The lack of a study culture
- Background related aspects

Stellenbosch University https://scholar.sun.ac.za

- Discipline and motivation
- Poor class and practical attendance.

Respondent	Question 9: Any suggestions on what the Institute can do to overcome the challenges students have in any of their first year subjects?
1 (R1)	Early identification of struggling students. Implement an extended program based on NBT results/ NSC ratios. Formalise and implement a tutorial program.
2 (R2)	Elsenburg is large enough to employ a Psychologist. Students found guilty of breaking some rule should be advised for therapy.
3 (R3)	Organise mentor and tutor programmes.
4 (R4)	No.
5 (R5)	Strict application of selection criteria and adjusting access to Maths and discarding Maths Literacy.
6 (R6)	A compulsory tut program with students that are struggling.
7 (R7)	The summer school is something they do already, which is a step in the right direction. More student support, like translation services.
8 (R8)	All tertiary institutions are already doing their level best to address exactly this! Definitely zero tolerance with regard to applying academic rules and regulations (e.g. class and practical attendance) to enhance and promote an even stronger academic environment – students get away with murder and are currently dictating the rules. Revise and upgrade the selection criteria and admission standards; it's currently a major part of our problems. Parent involvement and timeous notification of parents about student performance and behaviour. Study method courses and psychological support at U.S. Psychology Department for students. Encourage study groups amongst different cultures. Extended programme? Stricter criteria for bursary applications and revise and upgrade study performance clauses with regard to bursaries – students are having it far too easy and therefore refuse to take responsibility for their studies. There is absolutely no commitment and consideration from their side!

Yet again a multitude of interventions were proposed by lecturers with respect to supporting first year students to overcome challenges they may experience with their subjects. These included:

- Early identification of struggling students
- Attendance of tutorial programmes
- Review of selection and access criteria
- Employment of a Psychologist
- Translation services
- Greater stakeholder involvement (parent, student, support).

Stellenbosch University https://scholar.sun.ac.za

Respondent	Question 10: Have you used any formative assessments in your module before a major assessment event (test)?
1 (R1)	Yes, with high student numbers and no support for lecturers, makes it difficult to have an effect on students' performance. Students require quick feedback and follow ups on poor performers but this is not possible with the workload of lecturers.
2 (R2)	Yes, practical exercises in the field help with understanding.
3 (R3)	Yes.
4 (R4)	Yes.
5 (R5)	Yes. Unannounced class tests, tutorials which may include group work or individual effort.
6 (R6)	Yes. Before all tests we do a formative assessment in the form of tutorials.
7 (R7)	Yes, class tests, group work in class, and discussions as well as assignments.
8 (R8)	Yes.

All the lecturers concurred that they utilised formative assessments before a major event (test), and these took varied forms, most notably practical exercises, tutorials, group work, discussions and assignments. One respondent cited heavy workload and the expectation of feedback and turnaround times for these activities as prohibitive.

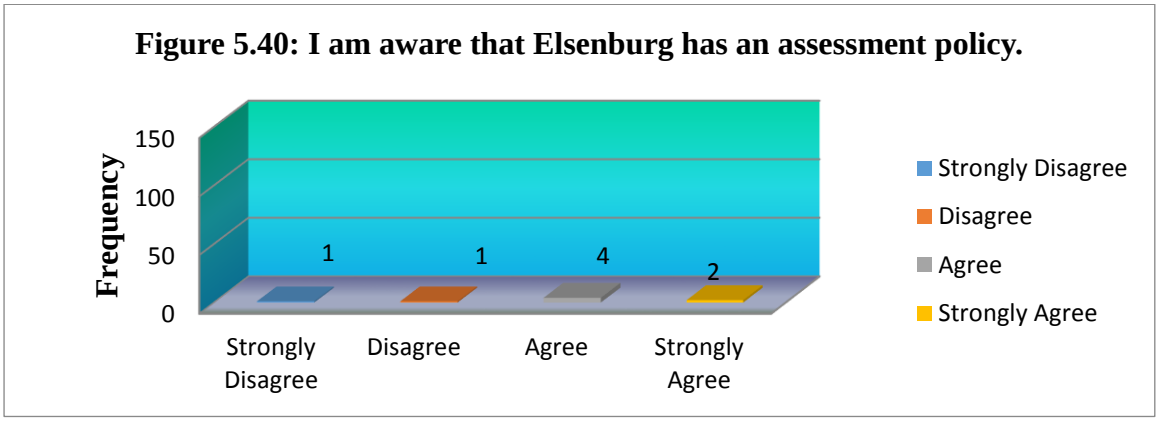
Respondent	Question 11: What type of formative assessments (tutorials, worksheets, etc.) did you use?
1 (R1)	Tutorials, scheduled and unscheduled class tests, peer question /answer sessions.
2 (R2)	Explaining maths with practical uses and applications.
3 (R3)	Tutorials.
4 (R4)	Written assignments and oral presentations.
5 (R5)	Tutorials, class tests (unannounced), peer assessment.
6 (R6)	Tutorials.
7 (R7)	See question 10.
8 (R8)	Spot Tests, fact sheets and formal revision.

Stellenbosch University https://scholar.sun.ac.za

Since formative assessments comprise of various methods, lecturers differed in terms of their responses to the types of formative assessments they used. Nevertheless, these included tutorials, peer assessments, written and oral assignments, peer discussion sessions, spot tests and fact sheets.

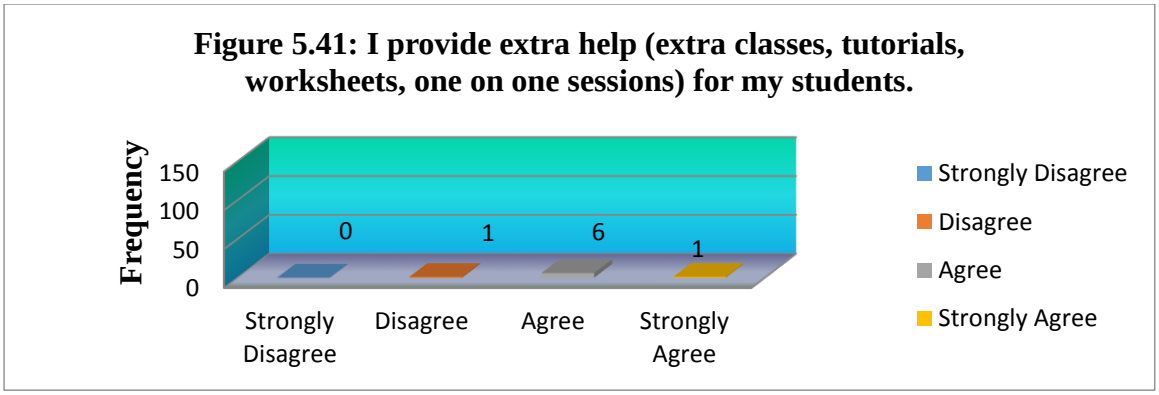
Quantitative results (Section B Results)

Figure 5.40: I am aware that Elsenburg has an assessment policy.



Lecturers mostly agreed or strongly agreed (75%) that they are aware that Elsenburg has an assessment policy (n=6). The remaining 25% either strongly disagreed or disagreed (n=2).

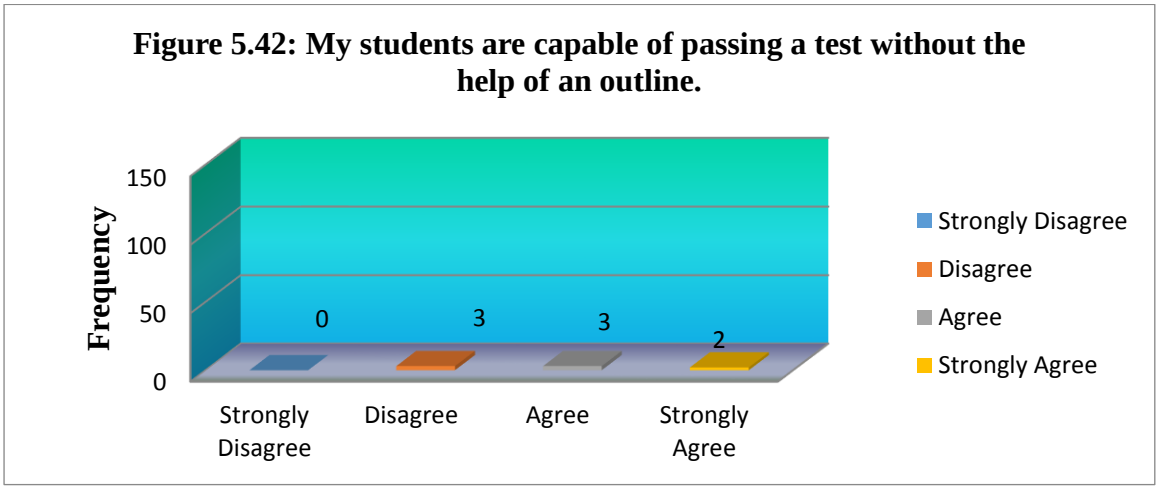
Figure 5.41: I provide extra help (extra classes, tutorials, worksheets, one on one sessions) for my students.



Stellenbosch University https://scholar.sun.ac.za

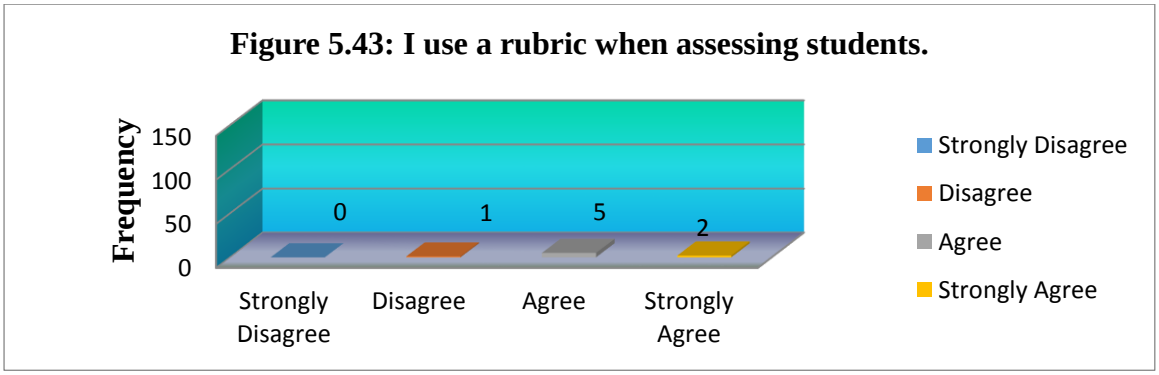
The large majority of the lecturers (87.5%) either strongly agreed or agreed that they provide extra help (extra classes, tutorials, worksheets, one on one sessions) for their students (n=7). Only 12.5% disagreed (n=1)

Figure 5.42: My students are capable of passing a test without the help of an outline.



The majority of the lecturers (62.5%) agreed or strongly agreed that their students were capable of passing a test without the help of an outline (n=5). A further 37.5% disagreed that their students are capable of passing a test without the help of an outline (n=3).

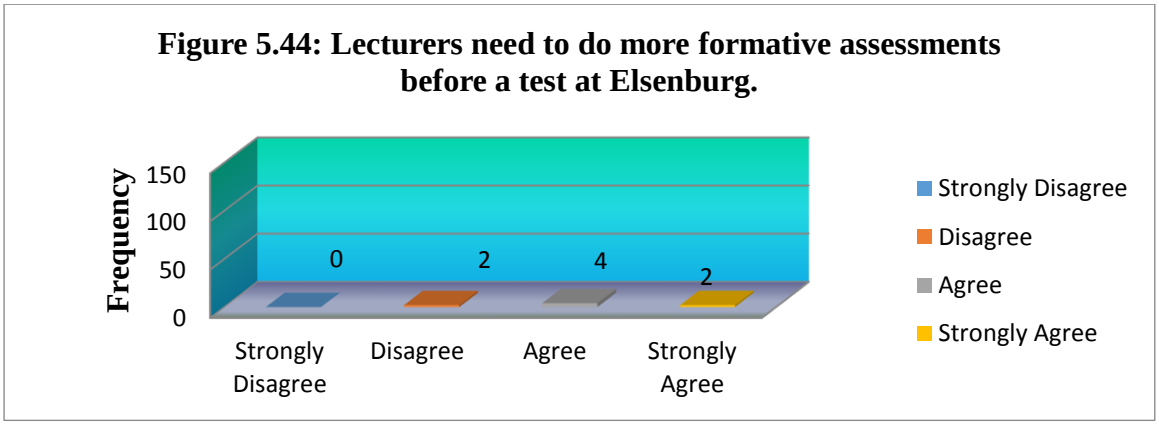
Figure 5.43: I use a rubric when assessing students.



The majority of the lecturers (87.5%) strongly agree or agree that they use a rubric when assessing students (n=7), with only 12.5% disagreeing (n=1).

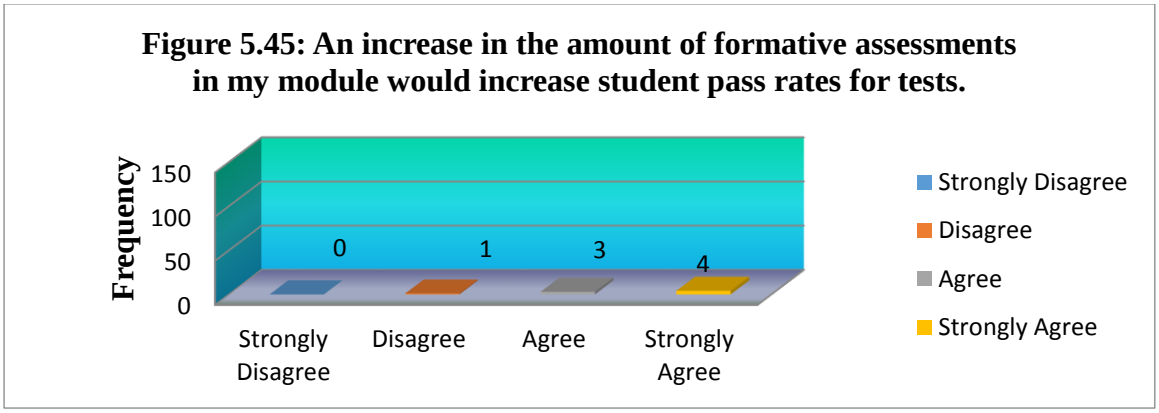
Stellenbosch University https://scholar.sun.ac.za

Figure 5.44: Lecturers need to do more formative assessments before a test at Elsenburg.



The majority of the lecturers (75%) either strongly agreed or agreed that lecturers need to do more formative assessments before a test at Elsenburg (n=6). The remaining 25% disagreed (n=2).

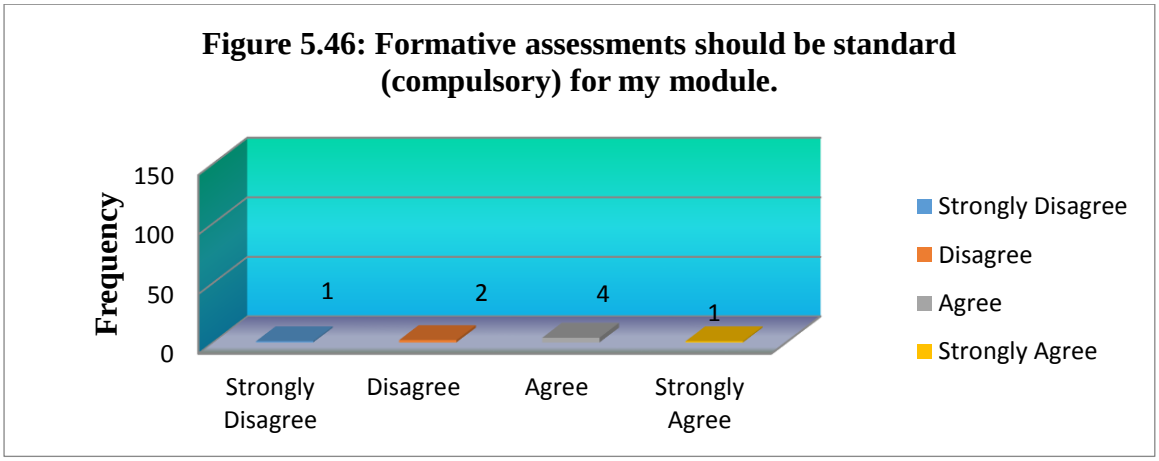
Figure 5.45: An increase in the amount of formative assessments in my module would increase student pass rates for tests.



The lecturers seemed to be mostly in agreement (87.5%) that an increase in formative assessments would increase student pass rates. The remaining 12.5% disagreed with this statement (n=1).

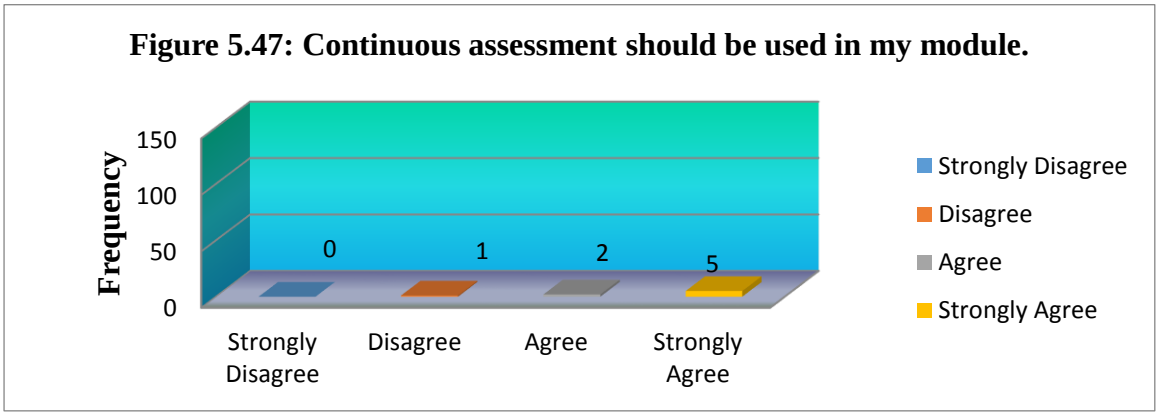
Stellenbosch University https://scholar.sun.ac.za

Figure 5.46: Formative assessments should be standard (compulsory) for my module.



The majority of the lecturers (62.5%) either strongly agreed or agreed that formative assessments should be standard for their module (n=5), with the remaining 37.5% either disagreeing or strongly disagreeing (n=3).

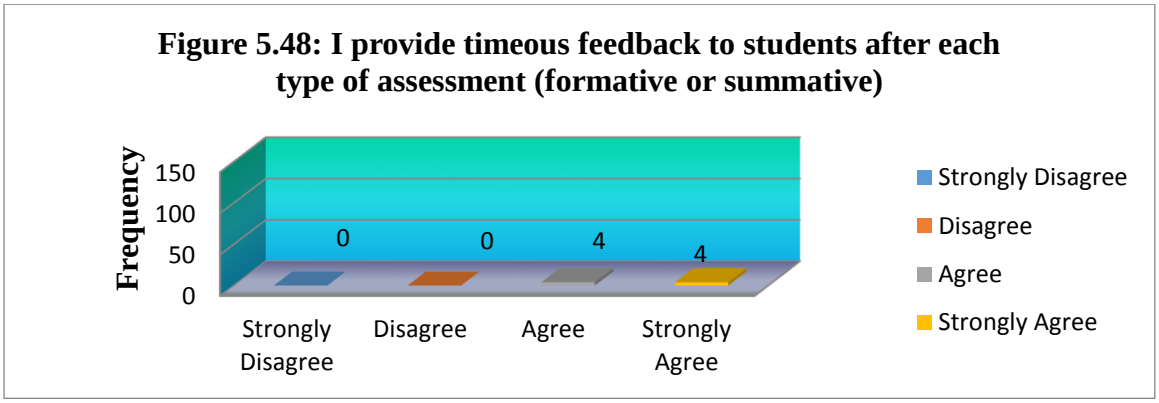
Figure 5.47: Continuous assessment should be used in my module.



The majority of the lecturers (87.5%) agreed that continuous assessment should be used in their module (n=7). The remaining 12.5% disagreed with this statement (n=1).

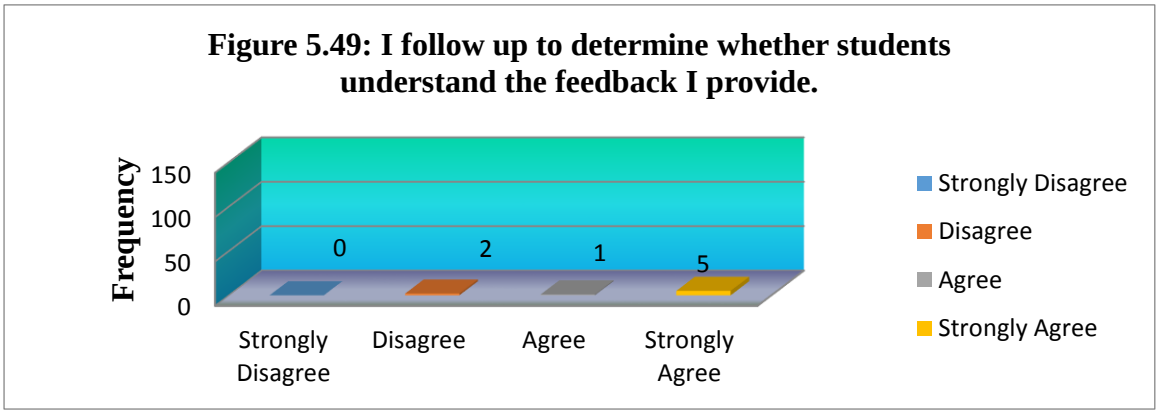
Stellenbosch University https://scholar.sun.ac.za

Figure 5.48: I provide timeous feedback to students after each type of assessment (formative or summative)



All the lecturers were in agreement that they provide timeous feedback to their students after each type of assessment, with 50% agreeing and 50% strongly agreeing.

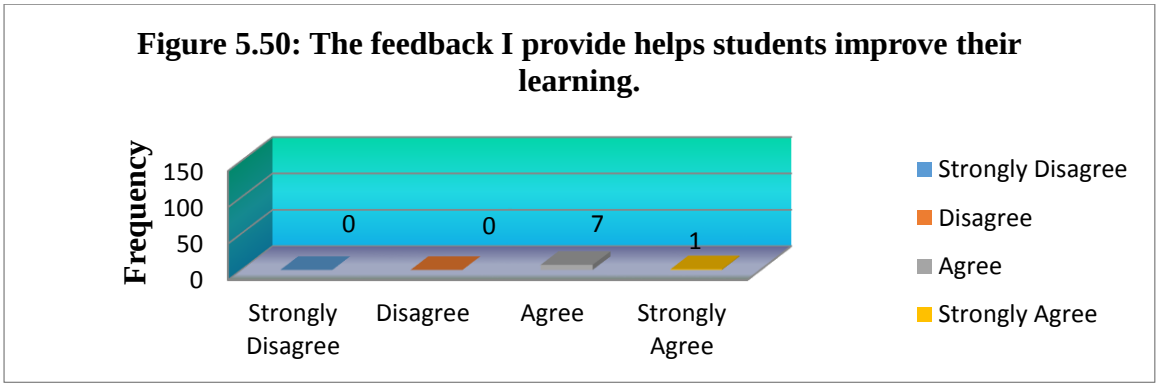
Figure 5.49: I follow up to determine whether students understand the feedback I provide.



The majority of the lecturers (75%) indicated that they follow up to determine whether students understand the feedback they provide (n=6), with the remaining 25% disagreeing (n=2).

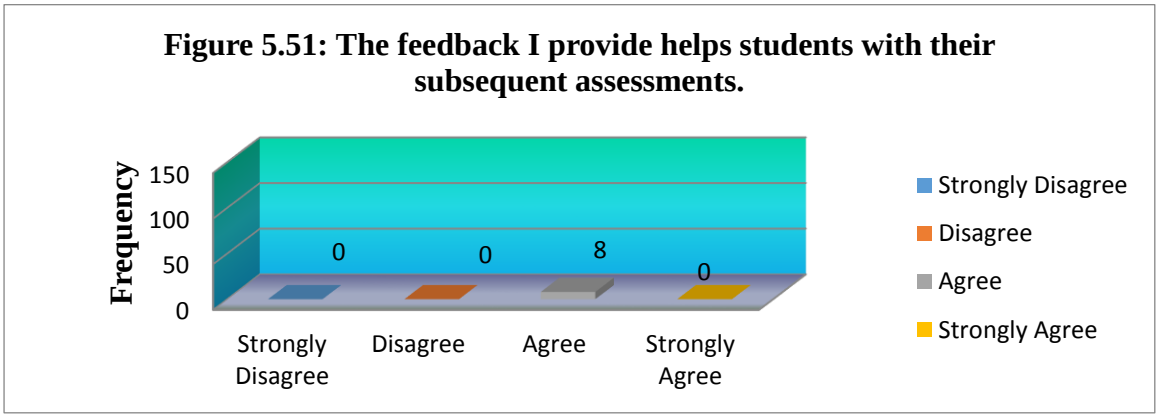
Stellenbosch University https://scholar.sun.ac.za

Figure 5.50: The feedback I provide helps students improve their learning.



All the lecturers indicated that they either agreed or strongly agreed that the feedback they provide helps students improve their learning (n=8).

Figure 5.51: The feedback I provide helps students with their subsequent assessments.



All the lecturers agreed that the feedback they provide helps students with subsequent assessments (n=8).

Synthesis of section 5.2.1.3

This subsection reports on data generated from questionnaires administered to lecturers as well as interview questions.

Stellenbosch University https://scholar.sun.ac.za

The majority of the lecturers (75%) indicated that they were aware that EATI had an assessment policy. Lecturers also agreed that they provide extra help to students (87.5%) by utilising extra classes, tutorial, worksheets and one on one sessions with students in order to facilitate learning. Moreover, lecturers were generally in agreement that their students were capable of passing a test without the help of an outline.

A large proportion of the lecturers (87.5%) make use of a rubric when assessing students. In addition, 75% of the lecturers agreed that they need to do more formative assessments. Lecturers also agreed that an increase in the amount of formative assessments in their module would increase student pass rates for tests. While 62.5% agreed that formative assessments should be standard for their module, 27.5% did not agree.

Lecturers voiced an interest in using continuous assessment (87.5%).There was consensus amongst lecturers that they provide timeous feedback to students after each type of assessment (formative or summative). However, the timing of that feedback, the quality of the feedback and the nature of that feedback were not addressed as potentially influencing the students' learning.

The majority of the lecturers (75%) maintained that they follow-up to check whether students understand feedback they provide. All the lecturers felt that their feedback helps students improve their learning (100%), and helps students with their subsequent assessments (100%).

5.3 Discussion

High dropout rates due to poor academic performance continue to be a daunting factor in the bid to increase throughput in institutions of higher learning. Among the various factors postulated to play a role in student academic performance, teaching and learning activities are two processes that are highly correlated. Murphy, Gray, Straja, and Bogert (2004)., Owston, Lupshenyuk, and Wideman, (2011) and Ganyaupfu (2013) maintain that different teaching practices and active learning engagement in undergraduate curricula are highly recommended for students' academic success. Moreover, research (Adunola, 2011; Zulfiquar and Zamir, 2015) suggests that

Stellenbosch University https://scholar.sun.ac.za

students' poor academic performance is associated with poor lecture attendance, which in turn is related to, inter alia, ineffective teaching and learning methods/practices.

The literature in Chapter 3 does show that assessment practices can potentially impact on student performance and success. The results collected in Chapter Five show that:

- Perceptions exist amongst students that assessment practices can potentially impact on their academic performance.
- There is a clear disconnect between what academic staff believe they are practicing and what students experience in the classroom setup.

It thus becomes clear that assessment practices need to not only be aligned with the stated curriculum for each particular subject, but that students and academic staff need to start speaking the same academic language. This becomes clear from the students' questions where many students are unfamiliar with the academic terminology such as assessments, formative and summative. There is also a case for stricter quality assurance to ensure that lecturers are applying the practices that they set out in their syllabus guides and that they are sufficiently trained to setup proper and adequate assessment tasks (Zulfiquar and Zamir, 2015).

Adunola (2011) and Ganyaupfu (2013), posit the view that teaching is a collaborative process which encompasses interaction by both learners and the lecturer. While the current research investigated whether assessment practices impact on student academic performance, some research (Muzenda, 2013) suggests that subject knowledge, teaching skills, lecturer attendance and lecturer attitude have a significant positive influence on students' academic performance. The influence of these factors needs also to be borne in mind. Moreover, research (AL-Mutairi, 2011; Kang'ahi et al., 2012) indicates amongst the factors most commonly associated with students' academic performance, lecturer competence remains one of the major determinants of students' academic achievements. Hence, the role of the aforementioned factors, should not be underestimated in an attempt to elucidate whether assessment practices have an impact on student academic performance.

Stellenbosch University https://scholar.sun.ac.za

Additional insights into student academic performance are provided by Mukorera and Nyatanga (2016) whose research postulated that students' attendance and engagement with teaching and learning practices are important components for student academic success. The results emanating from their research indicates that first-year students report lecturer consultation, consultation with an Academic Development Officer and revision classes as the most beneficial practices for their academic success. There thus exist strong arguments (Adunola, 2011; Andala and Ng'umbi, (2016) that it is important that teachers be acquainted with numerous teaching practices/strategies in order to ensure students' academic achievement.

5.4 Conclusion

This chapter has presented the most salient results which emerged from analysis of the data obtained to determine what the experiences are of students and staff of assessment practices at one agricultural institute in the Western Cape Province. The results show some interesting discrepancies with respect to student and lecturer views of assessment practices and how they could potentially impact on academic performance. These anomalies warrant further investigation in order to enhance the learning and assessment practices for EATI with respect to first year students. Some useful insights were also provided by lecturers with respect to potentially useful remedial interventions which EATI could institute in order to enhance academic performance and ultimately throughput. The next chapter provides conclusions and implications for future research.

Stellenbosch University https://scholar.sun.ac.za

CHAPTER SIX

CONCLUSIONS AND IMPLICATIONS

6.1 INTRODUCTION

Chapter 5 presented the salient results and discussion of the empirical findings which emanated from this study. In this chapter, the most important conclusions are drawn and juxtaposed against the literature overview presented in Chapter 3. The purpose of his study was to address and answer the research question: "What are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province".

6.2 CONCLUSIONS

Based on the findings reported in Chapter 5, a number of conclusions can be drawn with respect to how assessment practices could potentially influence first year students' and staff perceptions of academic performance of first year students. This was as a result of the analyses of student and staff responses, as well as from a review and analysis of relevant policy documents.

6.2.1 First year students' views on assessment and assessment types

The first subsidiary question examined first year students' beliefs on whether assessment and assessment types have an impact their passing or failing modules at EATI. It is apparent that a significant proportion of students did not understand what constituted formative and summative assessments. It may be that students do not accord sufficient attention to the terminology utilised, but it could also be that they are unfamiliar with the terms which may not have been explained to them before.

A significant proportion (81.5%) of the students indicated that there were insufficient formative assessments (tutorials, worksheets, assignments) to prepare them for tests. Similarly, they experienced that there were insufficient summative assessments to prepare them for examinations.

Stellenbosch University https://scholar.sun.ac.za

Students expressed the need to receive more feedback on formative assessments, argued that the feedback they received did not help them to understand things better nor showed them how to improve on subsequent assessments. In addition, they did not understand the feedback for the most part, and consequently, were unable to use feedback given to them to improve their learning. Due to this, the feedback they received did not allow them to adequately prepare for tests.

The majority of the students held the opinion that formative and summative assessments did not prepare them for examinations and that fewer formative assessments should be used in all courses at Elsenburg. Moreover, they believed that completing more formative assessments would not help them to achieve better marks.

6.2.2 Staff views on assessment and assessment types

Staff are aware of assessment and assessment types at EATI and how they impact on whether students pass or fail modules at EATI. There was consensus with respect to increasing the number of formative assessments administered, but academic staff recognised that this would have a concomitant impact on their workload in that they would need to design the content, develop assessment schedules and rubrics, evaluate student submissions, as well as verify marks obtained.

While the lecturers who participated in the research are familiar with formative and summative assessment, only one module at the EATI utilises continuous assessment as an approach. The staff expressed the desire to employ continuous assessment throughout the Higher Certificate programme and despite consultation with the EATI management, continuous assessment has not been implemented.

6.2.3. Comparison between first year student and staff perspectives on the impact of assessment and assessment types

It is evident from the study findings that students are unfamiliar with the various assessment types utilised at EATI. However, lecturing staff are aware of the various assessment types that they need to employ. Students and lecturers concurred that more formative assessments are required before tests. However, 50% of the staff surveyed were of the opinion that increasing the number of formative assessments would increase student pass rates. It is possible that lecturers equate more formative assessments with an increase in their workloads, and hence would not want to be burdened with additional marking. The majority of the staff are of the opinion that

Stellenbosch University https://scholar.sun.ac.za

formative assessments should be compulsory. They also expressed the need to use continuous assessments in their modules.

6.2.4 Whether staff and students are aware of the assessment policies and practices at EATI

The staff who were surveyed are mostly aware of a tacit assessment policy at EATI. The fact that 25% of the respondents disagreed suggests that such a policy may not be formalised at present. However, students are clearly not aware of assessment policies and practices at EATI.

6.2.5 The type of assessment practices and techniques lecturers employ at EATI

From the study findings it became clear that although lecturers use an array of assessment practices and techniques ranging from formative to summative, they also expressed an interest in continuous assessment as an alternative.

Interestingly, half of the staff surveyed, indicated that they provide timeous feedback to students after each type of assessment. Some lecturers indicated that they did not follow up to determine whether students understand the feedback they provide. However, they believed that their feedback helps students improve their learning and with their subsequent assessments.

In contrast, students expressed the need to receive more feedback on formative assessments, hold the opinion that the feedback they receive does not help them to understand things better nor indicate to them how to improve on subsequent assessments. In addition, they do not understand the feedback for the most part, and consequently, were unable to use feedback given to them to improve their learning. Due to this, the feedback did not allow them to adequately prepare for tests.

6.3 IMPLICATIONS

This study rendered important findings with several implications for students and staff at EATI. These are addressed in the sections which follow.

6.3.1 Implications for students

Based on the results with respect to understanding of formative and summative assessments, students may need to be educated as to what summative and formative

Stellenbosch University https://scholar.sun.ac.za

assessments entail. Moreover, it is evident that students may need to be more inquiring as to the nature of the assessments which they will be expected to complete and how this could ultimately impact on their academic performance. In this respect, Clark (2012) raises the issue of self-regulation and its role in learning and ultimately academic performance. Clark (2012) posits the view that self-regulated students need to develop a strong sense of self-efficacy and acquire effective study habits in order to engage in productive work, plan for more learning, monitor their time, and use social resources effectively. A corollary of this is that those students who are not engaged in learning will be at risk.

Students may need to be more actively involved in determining how they are assessed, through peer support programmes, tutorial programmes and the like. In this respect, Winne (2010) maintains that students should have multiple experiences and practice with feedback. However, in order for students to use feedback efficiently, it should be provided continuously on learning tasks (Winne, 2010).

6.3.2 Implications for staff

Since students showed a lack of understanding of summative and formative assessments, it is incumbent on staff to educate students as to what the various assessments and assessments types measure. This could lead to students more actively engaging with their learning and ultimately impact on their academic performance.

Lecturers may need to ensure that they provide clear instructions and encourage students to access them for clarification. Feedback that is provided by staff would also need to be more specific, tailor-made and be unambiguous. EATI may need to ensure that any assessment policy includes a statement on turnaround times for assignments (which is in place for tests) which could be a mechanism to improve academic performance. It is interesting that there seems to be disconnect between the suggestion by staff that they provide quality feedback to students, while students perceive feedback as insufficient to effect meaningful improvement in their academic performance.

Stellenbosch University https://scholar.sun.ac.za

This could be attained through lecturers ensuring that they provide substantive descriptive feedback during goal-oriented learning. In this way, learners are provided with measurable goals as well as specific improvements, attainment and progress (Colby-Kelly and Turner, 2007). Moreover, lecturers could assist students in promoting the acquisition of knowledge and skills to help students regulate their learning by becoming more reflective of their thinking, their motivation and behaviours which may drive their learning (Labuan, Zimmerman, and Hasselhorn, 2010).

In a changing education landscape, lecturers may need to adapt their repertoire of assessment methods to include alternative approaches, for example, portfolios, self and peer assessment. Such innovative assessment practices are likely to be encouraged based on the work of Sambell, McDowell and Brown (1997), which suggests that traditional assessment methods had an adverse impact on the learning process. Slater's (1996) proposal for portfolio assessment, and Segers and Dochy's (2001) results on students' perceptions about self and peer assessment in a problem-based learning environment setting provide insight into the role that these alternative assessment procedures could play in stimulating deep-level learning and critical thinking.

Since academic staff expressed the desire for continuous assessment as an alternative approach, they would need to actively promote this through further dialogue with the EATI management. They could be more proactive in this regard through benchmarking activities, thereby promoting best practice in assessment at the EATI.

6.3.3 Implications for further research

The study has raised a number of pertinent issues that need urgent attention in respect of assessment at EATI. In essence, future research may provide meaningful insights into the manner in which students are assessed at EATI once a formal assessment policy is institutionalised. At the time that this thesis was being written, a rudimentary policy was still being developed which will hopefully assist in enhancing student academic performance at EATI.

Similar studies could be undertaken at other agricultural training institutes/colleges in various provinces or indeed at a national level based on a larger sample of students and academic staff. Comparative analyses of results obtained from the institutes/colleges could help to identify similarities and/or disparities in the

Stellenbosch University https://scholar.sun.ac.za

experiences of students with respect to assessment practices and opinions of academic staff. Collaboration with other agricultural training institutes nationally and internationally could highlight synergies off which these institutes could leverage. The expertise of those involved in assessment and assessment practice within agricultural training institutes could advise academic staff on best practice with respect to conventional and alternative assessment practices in order to enhance the experiences of students and potentially impact on their academic performance.

The results could be interpreted against the backdrop of international agricultural training institutes which may be experiencing similar problems, or which have already reached a resolution with respect to appropriate assessment practices to utilise. The results which have emanated from the current research could serve as a benchmark for other agricultural training institutes which could provide the impetus for the development of standardised assessment practices. In the final analysis, in order to improve student academic performance and enhance throughput, requires a concerted effort, involvement and participation of a variety of stakeholders, inter alia, the EATI management, academic staff, students and the industries which they serve.

6.4 LIMITATIONS

This study was conducted at the EATI and therefore cannot be generalised to other organisations. Furthermore, the research was conducted at a single Agricultural Training Institute in the Western Cape and findings cannot be extrapolated to other agricultural training institutes.

Although both quantitative and qualitative data were generated for EATI staff, only quantitative data were utilised with respect to students. It could have been beneficial to also ascertain what some of the students' qualitative observations were in order to enhance the richness of the research but also as a mechanism to provide additional in-depth feedback to the institution.

6.5 CONCLUSION

This study has shown how the experience of assessment practices and policies at one agricultural institute potentially influence first year students' and staff's perceptions regarding academic performance. Though there are a myriad of limitations and challenges faced by staff and students at this particular agricultural college it could be

Stellenbosch University https://scholar.sun.ac.za

asserted that the assessment policies, guidelines and practices play an important role in student performance, especially those of first year students.

The overall research question: “What are the experiences of students and staff of assessment practices at one agricultural institute in the Western Cape Province” was pertinently and adequately addressed in this study. Based on its theoretical and empirical findings, the study effectively explored the impact of assessment practices as viewed by students and staff at this agricultural college. More such studies could reveal further remedial measures to assist this institute and similar entities in South Africa. This study thus has added in a modest way to the body of knowledge on student teaching and learning in agriculture education and EATI in particular which includes the immediate implementation of assessment policies and implementation plans which could lead to the potential improving of teaching and assessment practices contextualised to agricultural education at agricultural institutions.

For long term effectiveness the EATI might increasingly look into utilising the relationship it has with established intuitions such as Stellenbosch University which has various assessment policies and implementation strategies in place and which could benefit teaching and learning at EATI.

Stellenbosch University https://scholar.sun.ac.za

REFERENCES

Adrangi, B. (1989). The effectiveness of computer-related assignments in teaching business administration and economics. *Education and Computing*, 5(3), 167-171.

Adunola, O. (2011). *The Impact of Teachers' Teaching Methods on the Academic Performance of Primary School Pupils in Ijebu-Ode Local Cut Area of Ogun State*, Ego Booster Books, Ogun State, Nigeria.

AgriSETAConnect. (2014). *Agriseta Sector Skills Plan,* 2006-2010. http://www.agriseta.co.za

Al-Kadri, H. M., Al-Moamary, M. S., Roberts, C. and van der Vleuten C. P. M. (2012). Exploring assessment factors contributing to students' study strategies: Literature Review. *Med Teach*. 34:S42–S50. [PubMed]

AL-Mutairi, A. (2011). Factors Affecting Business Students' Performance in Arab Open University: Case of Kuwait. *International Journal of Business and Management*, 6(5):146-155.

Andala, H. O. and Ng'umbi, M. (2016). The Teaching Methods Used in Universities in Rwanda and their Effect on the Students' Academic Performance. *World Journal of Educational Research*, 3(5).

Anderson, G. (1990). *Fundamentals of educational research*. London: Routledge.

Anderson, L.W., Krathwohl, D.R., Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R. and Wittrock, M.C. (2001). *A Taxonomy for Learning, Teaching, and Assessing: A revision of Bloom's Taxonomy of Educational Objectives*. New York: Pearson, Allyn and Bacon.

Astin, A. W. (2012). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. Rowman and Littlefield Publishers.

Stellenbosch University https://scholar.sun.ac.za

Babbie, E. and Mouton, J. (2008). *The practice of social research*. South African 4th edition. Cape Town: Oxford University Press.

Bayaga, A., and Wadesango, N. (2013). Assessment-enabling participation in academic discourse and the implications. *South African Journal of Education*, 33(3), 00-00.

Bell, B., and Cowie, B. (2000). The characteristics of formative assessment in science education. *Science Education*, 85, 536–553.

Bennett, R. E. (2011). Formative assessment: A critical review. *Assessment in Education: Principles, Policy and Practice*, 18(1), 5-25.

Benvenuti, S. (2010). Towards a more authentic approach to assessment. *Teaching and Learning*, 1.

Benvenuti, S. (2017). Pedagogy of peers: Cultivating writing retreats as communities of academic writing practice. *South African Journal of Higher Education,* 31(2), 89-107.

Bezuidenhout, H. (2007). *Assessment of student learning. Staff development workshop*, Faculty of the Humanities, UFS. Unpublished.

Bezuidenhout, M. J and Alt, H. (2011). 'Assessment drives learning': Do assessments promote high-level cognitive processing? *South African Journal of Higher Education*, 2 (6), 1062-1076.

Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32(3), 347-364.

Biggs, J. (1999a). What the student does: teaching for enhanced learning. *Higher Education Research & Development*. 18(1), 57–75.

Biggs, J. 1999b). *Teaching for Quality Learning at University*. Buckingham: Open University Press.

Biggs, J. (2003). Aligning teaching and assessing to course objectives. *Teaching and learning in higher education: New trends and innovations*, 2, 13-17.

Stellenbosch University https://scholar.sun.ac.za

Biggs, J., and Tang, C. (2007). *Teaching for quality learning at university: What the student does* (3rd Ed.). Maidenhead, Berkshire: Open University Press.

Black, P., and Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education*, 5(1), 7-74.

Black, P., and Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21, 5–31.

Bloom, B.S, Benjamin S. and David R. Krathwohl. (1956). *Taxonomy of educational objectives: The classification of educational goals, by a committee of college and university examiners.* Handbook 1: Cognitive domain. New York, Longmans.

Bloom, B.S. (1969). *Some theoretical issues relating to educational evaluation. In Educational evaluation: New roles, new means.* The 63rd yearbook of the National Society for the Study of Education, part 2 (Vol. 69), ed. R. W. Tyler, 26-50. Chicago, IL: University of Chicago Press.

Boud, D. (1995). Assessment and learning: contradictory or complementary. *Assessment for Learning in Higher Education*, 35-48.

Boud, D., and Falchikov, N. (2005). Redesigning assessment for learning beyond higher education. *Research & Development in Higher Education*, 28, 34-41.

Boud, D and Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment and Evaluation in Higher Education,* 31(4), 399-413.

Boud, D., Cohen, R., and Sampson, J. (1999). Peer learning and assessment. *Assessment and Evaluation in Higher Education*, 24(4), 413-426.

Bridges, P., Cooper, A., Evanson, P., Haines, C., Jenkins, D., Scurry, D., ... & Yorke, M. (2002). Coursework marks high, examination marks low: discuss. *Assessment and Evaluation in Higher Education*, *27*(1), 35-48.

Broadfoot, P. (1995). *Performance assessment in perspective, in H. Torrance (Ed) Evaluating authentic assessment.* Buckingham: Open University Press: 9 43.

Stellenbosch University https://scholar.sun.ac.za

Brown Jr, J. (1999). *Assessment matters in higher education*. McGraw-Hill Education (UK).

Brown, G. (2001). *Assessment: A guide for lecturers* (Vol. 3). York: Learning and Teaching Support Network.

Brown, G., Bull, J., and Pendlebury, M. (1997). *Peer and self-assessment. Assessing student learning in higher education.* London: Routledge. 170-84.

Brown, H. D. (2004). *Language assessment: Principles and classroom practices*. Allyn and Bacon.

Brown. S. (2004). Assessment for learning. *Learning and Teaching in Higher Education,* 1, 81-89.

Brown, S., and Knight, P. (1994). *Assessing learners in higher education*. Psychology Press.

Brown, S., and Race, P. (2012). Using effective assessment to promote learning. University teaching in focus: A learning-centred approach. 74-91.

Brown, S. and Smith, B. (1999). *Getting to grips with assessment.* Buckingham, Society for Research into Higher Education and Open University Press.

Brown, S., Race, P., and Rust, C. (1995). Using and experiencing assessment. *Assessment for learning in higher education*, 4(2): 75-85.

Bulsara, C. (2015). *Using a mixed methods approach to enhance and validate your research*. Brightwater Group Research Centre.

Burger, D. (2004). *Assessment and Accountability.* Pacific Resource for Education and Learning. Honolulu, Hawaii.

Byrne, M., & Flood, B. (2005). A study of accounting students' motives, expectations and preparedness for higher education. *Journal of Further and Higher Education*, *29*(2), 111-124.

Stellenbosch University https://scholar.sun.ac.za

Charles, C. M. (1995). *Introduction to educational research* (2nd ed.). San Diego, Longman.

Cilliers, F. J., Schuwirth, L. W., Adendorff, H. J., Herman, N. and van der Vleuten, C. P. (2010). The mechanism of impact of summative assessment on medical students' learning. *Adv Health Sci Educ Theory Pract*. 15(5),695–715.

Clare, J. and Sivil, R. (2014). Autonomy lost: the bureaucratisation of South African HE. *South African Journal of Higher Education*, 2(1), 60-71.

Clark, I. (2012). Formative assessment: Assessment is for self-regulated learning. *Educational Psychology Review*, 24(2), 205-249.

Cobb, K. A., Brown, G., Jaarsma, D. A., & Hammond, R. A. (2013). The educational impact of assessment: a comparison of DOPS and MCQs. *Medical teacher*, *35*(11), e1598-e1607.

Coetzee, S., and Schmulian, A. (2011). *A mixed methods pedagogical approach to an introductory course to IFRS.* Accounting Instructors Report.

Colby-Kelly, C., and Turner, C. E. (2007). AFL research in the L2 classroom and evidence of usefulness: Taking formative assessment to the next Level Review. *La Revue Canadienne Des Langues Vivantes*, 64(1), 9-37.

Creswell, J. W., and Clark, V. L. P. (2007). *Designing and conducting mixed methods research.* Los Angeles: Sage.

Crisp, G.T., (2012). Integrative assessment: reframing assessment practice for current and future learning. *Assessment and Evaluation in Higher Education,* 37(1), 33-43.

Crooks, T. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research*, 58, 438-481

Crooks, T. J., and Mahalski, P. A. (1985). Relationships among assessment practices, study methods, and grades obtained. *Research & Development in Higher Education*, 8, 234-240.

Stellenbosch University https://scholar.sun.ac.za

Cross, M. (2004). Institutionalising campus diversity in South African higher education: Review of diversity scholarship and diversity education. *Higher Education*, *47*(4), 387-410.

Cross, R. and O'Loughlin, K. (2013). Continuous assessment frameworks within university English Pathway Programs: realizing formative assessment within high-stakes contexts. *Studies in Higher Education,* 38(4), 584-594.

Cuseo, J. (2007). Student success: Definition, outcomes, principles and practices. E-source for College Transitions, 4(5).

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives,* 8 (1), 15 - 22.

Denzin, N. K., & Lincoln, Y. S. (2002). *The qualitative inquiry reader*. Los Angeles: Sage.

Dessler, G. (2000). *Human Resource Management.* Eighth Edition. London: Prentice Hall International, Inc.

De Vos, A.S. (2011). *Combined quantitative and qualitative approach.* In A. S. de Vos, H. Strydom, C.B. Fouché and C.S.L. Delport (eds.). Research at grass roots: For the social sciences and human service professions. Third edition. Pretoria: Van Schaik. 357–366.

De Wet, J. H., and Van Niekerk, M. C. (2001). An innovative approach to accounting education at the first-year level. Meditari: Research Journal of the School of Accounting Sciences, 9(1), 93-108.

Dewey, J. (1929). *The quest for certainty: A study of the relation of knowledge in action.* New York, NY: Minton, Balch and Company.

Dewey, J. (1938). *Education and experience*. New York, NY: Simon and Shuster.

Dhindsa, H. S., Omar, K., and Waldrip, B. (2007). Upper secondary Bruneian science students' perceptions of assessment. *International Journal of Science Education,* 29(10), 1261-1280.

Stellenbosch University https://scholar.sun.ac.za

Dixson, D.D. and Worrell, F.C. (2016). Formative and Summative Assessment in the Classroom. *Theory into Practice,* 55 (2): 153-159.

DoE (Department of Education) (2007), *National Policy on Assessment and Qualifications for Schools in the General Education and Training Band*. Pretoria: Department of Education.

DoE (Department of Education). (1997). *Curriculum 2005: Specific outcomes, assessment criteria, range statements: Grades 1–9.* Discussion document. Pretoria.

DoE (Department of Education). (2002). *Revised National Curriculum Statement Policy.* Pretoria: Government Printer.

DoE (Department of Education). (2003). *Interim policy framework for the assessment and promotion of learners in Grade 9*, Government Gazette no. 25699.

DoE (Department of Education). (2007). *National Policy on Assessment and Qualifications for Schools in the General Education and Training Band.* Pretoria: Department of Education.

Dooey, P., and Oliver, R. (2002). An investigation into the predictive validity of the IELTS Test as an indicator of future academic success. New York.

Downs, C.T. (2009). Academic performance and pass rates: Comparison of three first-year life science courses. *South African Journal of Higher Education,* 23 (4): 656-673.

Dropout rates in the United States. (1999). https://nces.ed.gov/pubs2001/2001022.pdf

Dunkin, R., and Lindsay, A. (2001). Universities as centres for lifelong learning: Opportunities and threats at the institutional level*. International Handbook of Lifelong Learning,* 529-544.

EATI (Elsenburg Agricultural Training Institute). (2011). *Prospectus: BAgric.* Unpublished. Western Cape Department of Agriculture.

Stellenbosch University https://scholar.sun.ac.za

Eley, M. G. (1992). Differential Adoption of Study Approaches within Individual Students. *Higher Education*, 23, 231–254.

Ellington, H. (1999). *The Times Higher Education Supplement*, 33.

Elton, L., and B. Johnston. (2002). *Assessment in Universities: A Critical Review of Research.* LTSN Generic Centre.

Entwistle, N. (1997). Reconstituting approaches to learning: A response to Webb. *Higher Education*, 33(2), 213-218.

Entwistle, N., and Tait, H. (1990). Approaches to learning, evaluations of teaching, and preferences for contrasting academic environments. *Higher Education*, 19(2), 169-194.

Evaluation of agricultural education and training curricula in South Africa. (2008). Retrieved from http://www.nda.agric.za/doaDev/sideMenu/educationAndTraining/CURRICULUM_REPORT_Oct2008.pdf

Everson, V. (2010). Continuous Assessment: an antidote for “selective negligence”?” feedback? No, just give us the answers. *French Studies in Southern Africa,* (40), 37-59.

Falchikov, N. (2004). Involving students in assessment. *Psychology Learning and Teaching*, 3(2), 102-108.

Falchikov, N. (1995). Peer feedback marking: Developing peer assessment. *Programmed Learning*, 32(2), 175-187.

Feilzer, Y. M. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4(1), 6-16.

Fleetwood, C., and Shelley, K. (2000). The Outlook for College Graduates, 1998-2008: A Balancing Act. *Occupational Outlook Quarterly*, 44(3), 2-9.

Friedlander, J., and Serban, A. M. (2004). *Meeting the challenges of assessing student learning outcomes.* In A. M. Serban and J. Friedlander (Eds.), Developing

Stellenbosch University https://scholar.sun.ac.za

and implementing assessment of student learning. New Directions for Community Colleges, no. 126, pp. 101-109. San Francisco: Jossey-Bass.

Friedrich-Nel, H., de Jager, L., Joubert, G. and Nel, M. (2003). Emerging assessment trends in higher education. (2003). *South African Journal of Higher Education,* 17(3), 49-65.

Gall, T. L., Evans, D. R., and Bellerose, S. (2000). Transition to first-year university: Patterns of change in adjustment across life domains and time. *Journal of Social and Clinical Psychology*, 19(4), 544-567.

Ganyaupfu, E. M. (2013). Factors Influencing Academic Achievement in Quantitative Courses among Business Students of Private Higher Education Institutions. *Journal of Education and Practice*, 4(15): 57-65.

Gardner, J. N., and Gardner, J. (Eds.). (2012). *Assessment and learning*. Sage.

Gardner, S. K. (2009). Conceptualizing success in doctoral education: Perspectives of faculty in seven disciplines. *The Review of Higher Education*, 32(3), 383-406.

Geyser, H. (2004). Learning from assessment, S. Gravett and H. Geyser (Eds.). *Teaching and learning in higher education*. Pretoria: Van Schaik Publishers. 90-111.

Gibbs, G. **(**1993). The CNAA improving student learning project. *Research & Development in Higher Education,* 14: 8–19.

Gibbs, G. (1998). *Marking and giving feedback*. In: Open University Centre for Higher Education Practice. (Ed.). *Teaching in higher education: Theory and evidence*. Milton Keynes: Open University, pp.3-37.

Gibbs, G. (2006). How assessment frames student learning. *Innovative Assessment in Higher Education*, 23.

Gibbs, G. (1999). Learning how to learn using a virtual learning environment for philosophy. *Journal of Computer Assisted Learning*, 15(3), 221-231.

Stellenbosch University https://scholar.sun.ac.za

Gibbs, G., and Lucas, L. (1997). Coursework assessment, class size and student performance: 1984-94. *Journal of Further and Higher Education*, 21(2), 183-192.

Gijbels, D., Van de Watering, G., Dochy, F., & Van den Bossche, P. (2005). The relationship between students' approaches to learning and the assessment of learning outcomes. *European Journal of Psychology of Education*, *20*(4), 327.

Glaser, R. (1963). 'Instructional technology and the measurement of learning outcomes: some questions', in Popham, W.J. (ed.), *Criterion-referenced measurement*, New Jersey: Educational Technology Publications.

Gliem, J. A., and Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-606.

Gonczi, A. (1994). Competency based assessment in the professions in Australia. *Assessment in Education: Principles, Policy and Practice*, 1(1), 27-44.

Goodrum, D., Hackling, M., and Rennie, L. (2005). *The status and quality of teaching and learning of science in Australian schools.* Canberra: Department of Education, Training and Youth Affairs.

Gordon, S and Reese, M. (1997) High stakes testing: worth the price? *Journal of School Leadership,* 7, 345-368.

Green, B. (2004). Personal construct psychology and content analysis. *Personal Construct Theory & Practice*, *1*(3), 82-91.

Greenbaum, L. and Rycroft, A. (2014). The development of graduate attributes: The book of the Year project. *South African Journal of Higher Education*, 28(1), 91-109.

Greer, L. (2001). Does changing the method of assessment of a module improve the performance of a student? *Assessment and Evaluation in Higher Education,* 26(2), 127-138.

Stellenbosch University https://scholar.sun.ac.za

Groenewald, J. (2005). *Unpublished proceedings from Stellenbosch University's Teaching Day*, May 27. Stellenbosch Lodge, Stellenbosch.

Grussendorf, S., Booyse, C., and Burroughs, E. (2014). *What's in the CAPS package? A comparative study of the National Curriculum Statement (NCS) and the Curriculum and Assessment Policy Statement (CAPS) Further Education and Training (FET) Phase*. Overview report.

Gubrium, J.F. and Holstein, J.A. (2000). *Analyzing interpretive practice*. In N.K. Denzin and Y.S. Lincoln (eds.). *Handbook of Qualitative Research*. Second edition. Thousand Oaks, CA: Sage. 487–508.

Hager, P., and Gonczi, A. (1996a). Professions and competencies. *Boundaries of Adult Learning*, 246-260.

Hager, P., and Gonczi, A. (1996b). What is competence? *Medical Teacher*, 18(1), 15-18.

Hannay, D. R. (1999). Seven years' experience of continuous assessment for degree examination in general practice. **Medical Teacher**, 21(2), 151-155.

Hanover Research Report (2013) http://www.hanoverresearch.com/media/Emerging-and-Future-Trends-in-K-12-Education-1.pdf

Harlen, W. (2004). *Rethinking the teacher's role in assessment*. Paper presented at the British Educational Research Assessment Annual Conference. 16-18 September 2004, University of Manchester.

Harvey, L., Drew, S., and Smith, M. (2006). *The first-year experience: a review of literature for the Higher Education Academy*. York: The Higher Education Academy.

Heale, R., and Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence Based Nursing*, 18(3), 66-67.

Hearn, J. C. (2006). Student Success: What research suggests for policy and practice. Retrieved from https://nces.ed.gov/npec/pdf/synth_Hearn.pdf

Stellenbosch University https://scholar.sun.ac.za

Hennessy, S., and McCormick, R. (1994). The general problem-solving process in technology education. *Teaching Technology*, (12), 94-108.

Henning, E. (2004). *Finding your way in qualitative research.* Pretoria: Van Schaik.

Henning, E.H., Van Rensburg, W. and Smith, B. (2010). *Finding your way in qualitative research*. Van Schaik Publishers: Pretoria

Hernández, R. (2012). Does continuous assessment in higher education *support* student learning? *Higher Education*, 64(4), 489-502.

Herppich, S., Wittwer, J., Nückles, M. and Alexander Renkl. (2014). Addressing knowledge deficits in tutoring and the role of teaching experience: Benefits for learning and summative assessment. Journal of Educational Psychology, 106(4): 934-945.

Heywood, J. (2000). *Assessment in higher education.* London: Jessica Kingsley.

Higgins, M., Grant, F., and Thompson, P. (2010). Formative assessment: Balancing educational effectiveness and resource efficiency. *Journal for Education in the Built Environment*, 5(2), 4-24.

Higgins, R., Hartley, P., and Skelton, A. (2001). Getting the message across: the problem of communicating assessment feedback. *Teaching in Higher Education*, 6(2), 269-274.

Hodges, D., Eames, C., and Coll, R. K. (2014). Theoretical perspectives on assessment in cooperative education placements. *Asia-Pacific Journal of Cooperative Education,* 15(3), 189-207.

Hofstee, E. (2009). *Constructing a good dissertation: A practical guide to finishing master's, MBA or PHD on schedule.* Johannesburg: EPE.

Houser, N., De Tienne, A., Eller, J., Clark, C., Lewis, A., and Bront Davis, D. (Eds.). (1998). *The essential Peirce. Vol. 2: Selected philosophical writings.* Indianapolis: Indiana University Press.

http://www.nda.agric.za/doaDev/sideMenu/SectoralColleges/docs/CURRICULUM_REPORT_Oct2008.pdf [Accessed on 14 November 2016].

Stellenbosch University https://scholar.sun.ac.za

Huba, M.E., and Freed, J.E. (2000). Teacher-centred vs. learner-centred paradigms. Retrieved from: http://assessment.uconn.edu/docs/TeacherCenteredVsLearnerCenteredParadigms.pdf

Hunter. M. (2016). Student success. Retrieved from: https://www.aacu.org/publications-research/periodicals/fostering-student-learning-and-success-through-first-year-programs

Huysamen, G.K. (1993). Fair and unbiased admission procedures for South African institutions of higher education. *South African Journal of Higher Education*, 10 (2), 199-207.

Ihuah, P. W., and Eaton, D. (2013). The pragmatic research approach: A framework for sustainable management of public housing estates in Nigeria. *Journal of US-China Public Administration*, 10(10), 933-944.

Israel, H. (2005). Continuous assessment as a tool in curriculum development. South African Journal of Higher Education, 19 (Special Issues): 1419-1426.

James, R., McInnis, C., & Devlin, M. (2002). *Assessing learning in Australian universities: Ideas, strategies and resources for quality in student assessment*. Australian, Universities Teaching Committee.

Jankowski, N. A. (2012). St. Olaf: *Utilization-focused assessment*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).

Jenkins, M. (2005). Unfulfilled promise: formative assessment using computer-aided assessment. *Learning and Teaching in Higher Education*, (1), 67-80.

Joas, H. (1992). An Underestimated Alternative: America and the Limits of 'Critical Theory'. Symbolic Interaction, 15(3), 261–75.

Joas, H. (1993). *Pragmatism and social theory.* Chicago: University of Chicago Press.

Joppe, M. (2000). *The Research Process*.

Stellenbosch University https://scholar.sun.ac.za

https://www.google.co.za/search?q=Joppe%2C+M.+(2000).+The+Research+Process&rlz=1C1DIEZ_enZA777ZA777&oq=Joppe%2C+M.+(2000).+The+Research+Proc [Retrieved August 15, 2017].

Jürges, H., Schneider, K., Senkbeil, M., and Carstensen, C. H. (2012). Assessment drives learning: The effect of central exit exams on curricular knowledge and mathematical literacy. *Economics of Education Review*, 31(1), 56-65.

Kang'ahi, M., Indoshi, F.C., Okwach, T.O. and Osido, J. (2012). Teaching Styles and Learners' Achievement in Kiswahili Language in Secondary Schools, *International Journal of Academic Research in Progressive Education and Development*, 1(3),62-87.

Kanjee, A., Molefe, M. R. M., Makgamatha, M. M., and Claassen, N. C. W. (2010). Teacher assessment practices in South African schools? Commissioned by the Department of Education. March. Abstract in MEDLINE.

Kasonga, R. A., and Corbett, A. D. (2008). An assessment model for improving student learning of statistics. *South African Journal of Higher Education*, 22(3), 602-614.

Kastantin, J., and Novicevic, M. (2008). Teaching the choir: Challenges of a learner-centred simulation. *Accounting Education: an International Journal*, 17(2), 209-212.

Kehoe, A., and Goudzwaard, M. (2015). ePortfolios, Badges, and the Whole Digital Self: How Evidence-Based Learning Pedagogies and Technologies Can Support Integrative Learning and Identity Development. *Theory into Practice*, 54(4), 343-351.

Kember, D., and Leung, D. Y. (2008). Establishing the validity and reliability of course evaluation questionnaires. *Assessment and Evaluation in Higher Education*, 33(4), 341-353.

Kennelly, B., Considine, J., and Flannery, D. (2011). Online assignments in economics: A test of their effectiveness. *The Journal of Economic Education*, 42(2), 136-146.

Stellenbosch University https://scholar.sun.ac.za

Kirk, J., & Miller, M. L. (1986). *Reliability and validity in qualitative research*. London: Sage.

Knight, P. (2006). The local practices of assessment. *Assessment and Evaluation in Higher Education*, 31(4), 435-452.

Koma, V. (2009). Learner-centred facilitation of learning-a possibility for Financial Accounting I. *Interim: Interdisciplinary Journal*, 8(1), 27-39.

Kotze, G. S. (2002). Issues related to adapting assessment practices. *South African Journal of Education,* 22(1), 76-80.

Kuh, G. D., Kinzie, J. L., Buckley, J. A., Bridges, B. K., and Hayek, J. C. (2006). *What matters to student success: A review of the literature* (Vol. 8). Washington, DC: National Postsecondary Education Cooperative.

Kulieke, M., Bakker, J., Collins, C., Fennimore, T., Fine, C., Herman, J and Tinzmann, M. B. (1990). *Why should assessment be based on a vision of learning?* North Central Regional Educational Laboratory.

Labuan, A. S., Zimmerman, B. J., and Hasselhorn, M. (2010). Enhancing students' self-regulation and mathematics performance: The influence of feedback and self-evaluative standards. *Metacognition and Learning*, 5(2), 173-194.

Lai, P., Tang, C., and Taylor, G. (1997). Traditional assessment approaches: saints or devils to learning fostered by PBL. *Research and Development in Problem-Based Learning*, 4.

Lankshear, C. and Knobel, M. (2005). *A handbook for teacher research: From design to implementation*. New York: Open University Press.

Leibowitz, B, Van der Merwe, A and Van Schalkwyk, S. (2009). *Focus on first-year success. Perspectives emerging from South Africa and beyond*. Sun Media, Stellenbosch.

Leibowitz, B. (2009). What's inside the suitcases? An investigation into the powerful resources students and lecturers bring to teaching and learning. *Higher Education Research & Development*, 28(3), 261-274.

Stellenbosch University https://scholar.sun.ac.za

Leinster, S. (2002). Medical education and the changing face of healthcare delivery. *Medical Teacher*, 24(1), 13-15.

Likert, R. (1931). *A technique for the measurement of attitudes*. Archives of Psychology. New York: Columbia University Press.

Lindley, W.I., Van Crowder, L., and Don, N., (1996). *Education in Agriculture: Links with Development in Africa. Sustainable Development Department, Food and Agriculture Organization of the United Nations (FAO).* Available at: http://www.fao.org/sd/Exdirect/EXan0008.htm [Accessed on January 2017]

Linn, R., Dunbar, S., Harnisch, D. & Hastings, C. (Eds). (1982). *The validity of the title 1 evaluation and reporting systems.* Beverley Hills, CA: Sage.

Linn, R. (2000). Assessments and accountability. *Educational Researcher*, 29: 4-16.

Lombardi, M. M. (2008). *Making the grade: The role of assessment in authentic learning*. EDUCAUSE Learning Initiative.

López-Pastor, V., and Sicilia-Camacho, A. (2017). Formative and shared assessment in higher education. Lessons learned and challenges for the future. *Assessment and Evaluation in Higher Education*, 42(1), 77-97.

Louw, A. (2005). Staking van studies aan landbouopleidingsinstellings in die Wes-Kaap: waarskynlike Oorsake en moontlike strategieë vir studente-ondersteuning. Unpublished doctoral thesis. Stellenbosch University, Stellenbosch, Cape Town, South Africa.

Luckett, K., and Sutherland, L. (2000*). Assessment practices that improve teaching and learning.* University of the Western Cape: AHERO

Lum, G. (1999). Where's the Competence in Competence-based Education and Training? *Journal of Philosophy of Education*, 33(3), 403-418.

Margulies, B. J., and Ghent, C. A. (2005). Alternative assessment strategy and its impact on student comprehension in an undergraduate microbiology course. *Microbiology Education*, 6, 3.

Stellenbosch University https://scholar.sun.ac.za

Marriott, P., and Lau, A. (2008). The use of on-line summative assessment in an undergraduate financial accounting course. *Journal of Accounting Education*, 26(2), 73-90.

Masitsa, G. (2004). Four critical causes of underachievement in township secondary schools. *Acta Academica*, 36(1), 213-245.

Masters, J., and Donnison, S. (2010). First-year transition in teacher education: The pod experience. *Australian Journal of Teacher Education* (Online), 35(2), 87.

Mayende, G. (2014). Bird's eye view. *AgriSeta Connect*. November/December 2014.

Mayring, P. (2000). Qualitative Content Analysis. *Forum: Qualitative Social Research*, 1(2).

McDowell, L., Sambell, K., Bazin, V., Penlington, R., Wakelin, D., Wickes, H., and Smailes, J. (2006*). Assessment for learning: Current practice exemplars from the centre for excellence in teaching and learning in assessment for learning.* Northumbria: Northumbria University.

McGhie, V. F., Van der Walt, C. and Van Schalkwyk, S. (2012). Successful first-year learning: a social cognitive view of academic literacy. *Journal for Language Teaching* (SAALT), 46 (2):27-41.

McIver, J. P., and Carmines, E. G. (1981). *Unidimensional scaling.* Thousand Oaks, CA: Sage.

McLachlan, J. C. (2006). The relationship between assessment and learning. *Medical Education*, 40(8), 716-717.

McMahon, J. A. (2000). *Law of the common agricultural policy.* Cape Town: Longman/Pearson Education.

McManus, I. C., Richards, P., Winder, B. C., and Sproston, K. A. (1998). Clinical experience, performance in final examinations, and learning style in medical students: prospective study. *BMJ*, 316(7128), 345-350.

Stellenbosch University https://scholar.sun.ac.za

Melmer, R., Burmaster, E., and James, T. K. (2008). *Attributes of effective formative assessment.* Washington, DC: Council of Chief State School Officers. https://files.eric.ed.gov/fulltext/ED505357.pdf [Retrieved October, 7, 2016].

Meyer, L. H., Davidson, S., McKenzie, L., Rees, M., Anderson, H., Fletcher, R., and Johnston, P. M. (2010). An investigation of tertiary assessment policy and practice: Alignment and contradictions. *Higher Education Quarterly*, 64(3), 331-350.

Meyers, N. M., and Nulty, D. D. (2009). How to use (five) curriculum design principles to align authentic learning environments, assessment, students' approaches to thinking and learning outcomes. *Assessment and Evaluation in Higher Education*, 34(5), 565-577.

Miller, M. (2006). Assessment: A Literature Review. Glasgow: Scottish Qualifications Authority. Best and Innovative Practices in Higher Education Assessment. 2013. Retrieved from: http://www.sqa.org.uk/files_ccc/ResearchBulletin19.pdf [Retrieved 14 October, 2017]

Mintzes, J. J., Wandersee, J. H., and Novak, J. D. (Eds.). (2005). *Assessing science understanding: A human constructivist view.* New York: Academic Press.

Moll, I, (2004). Curriculum responsiveness: The anatomy of a concept. In Griesel, H (ed.), Curriculum Responsiveness Case Studies in Higher Education. Pretoria: South African Universities' Vice-Chancellors' Association (SAUVCA).

Mukorera, S and Nyatanga, P. (2016). Students' Perceptions of Teaching and Learning Practices: A Principal Component Approach SAEF Working Paper No. 2016/01/11

Murphy, R. J., Gray, S. A., Straja, S. R. and Bogert, M. C. (2004). Student learning preferences and teaching implications. *Journal of Dental Education*, 68(8): 859-866.

Stellenbosch University https://scholar.sun.ac.za

Muwumba, M. A. (2014). *The challenges of assessing competencies and its implications on performance in national examinations in Uganda.* Kampala: nternational Association for Educational Assessment Conference paper.

Muzenda, A. (2013). *Lecturers' Competences and Students' Academic Performance.* Department of Research and Publications: Regenesys Business School, South Africa.

Nair, P. A. P., and Pillay, J. (2004). Exploring the validity of the continuous assessment strategy in higher education institutions: research in higher education. *South African Journal of Higher Education*, 18(2), 302-312.

National Department of Basic Education. (2014). Curriculum and Assessment Policy Statement (CAPS). Retrieved at http://www.education.gov.za [Retrieved 5 October 2016]

Nel, C., Troskie-de Bruin, C., and Bitzer, E. (2009). Students' transition from school to university: possibilities for a pre-university intervention. *South African Journal of Higher Education*, 23(5), 974-991.

Neuman, W.L. (1997). *Social research methods: Qualitative and quantitative approaches.* Third edition. Needham Heights, MA: Allyn and Bacon.

Newble, D. I., and Jaeger, K. (1983). The effect of assessments and examinations on the learning of medical students. *Medical Education*, 17(3), 165-171.

Ngidi, D. (2007). Students' and lecturers' perceptions of some factors influencing students' academic success or failure at a historically black university in South Africa. South African Journal of Higher Education, 21 (4): 717-732.

Nickell, P. (1993). *Alternative Assessment: Implications for Social Studies.* ERIC Digest.

Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill. Third Edition.

Stellenbosch University https://scholar.sun.ac.za

O'Farrell, C. (2005). Enhancing student learning through assessment. Dublin: Institute of Technology. Retrieved from http://www.tcd.ie/teaching-learning/academic-development/assets/pdf/250309_assessment_toolkit.pdf [Retrieved on 3 October 2016]

Ogude, N., Nel, H. and Oosthuizen, M., (2005). *The challenge of curriculum responsiveness in South African higher education*. Pretoria: Council on Higher Education.

Orrell, J. (2005). What's worth learning in higher education? Available online at http://www.flinders.edu.au/teach/assess/whatsworth.htm [Retrieved on 2 November 2016]

Owston, R., Lupshenyuk, D. and Wideman, H. (2011). Lecture capture in large undergraduate classes: Student perceptions and academic performance. *The Internet and Higher Education*, 14(4): 262-268.

Paris, S. G., Wasik, B., & Turner, J. C. (1991). *The development of strategic readers.* Washington: Allied University Press.

Palmer, R. T., Wood, J. L., Dancy, T. E., and Strayhorn, T. L. (2014). *Black Male Collegians: Increasing Access, Retention, and Persistence in Higher Education*: ASHE Higher Education Report 40: 3. John Wiley and Sons.

Pearson, R. (2005). Achieving student progress with scientifically based formative assessment: A white paper from Pearson. Retrieved from: http://www.pearsoned.com/RESRPTS_FOR_POSTING/PASeries_RESEARCH/PA1.%20Scientific_Basis_PASeries%206.05.pdf [Retrieved on 2 December 2016]

Peirce, C.S. (1992). How to make our ideas clear (1878). In N. Houser and C. Kloesel (eds.). *The essential Peirce: Selected philosophical writings*, Vol. 1 (1867–1893). Bloomington, IN: Indiana University Press, 286–302.

Peirce, C. S. (1998). *The essential Peirce: selected philosophical writings* (Vol. 2). Indiana University Press.

Penn-Edwards, S. (2010). The competencies of an English teacher: Beginning student teachers' perceptions. *Australian Journal of Teacher Education*, 35(2), 4.

Stellenbosch University https://scholar.sun.ac.za

Perie, M., Marion, S., and Gong, B. (2009). Moving toward a comprehensive assessment system: A framework for considering interim assessments. *Educational Measurement: Issues and Practice,* 28, 5–13.

Perie, M., Marion, S., Gong, B., and Wurtzel, J. (2007). The Role of Interim Assessments in a Comprehensive Assessment System: A Policy Brief. Aspen Institute.

Peters, M. A. (2007). Knowledge economy, development and the future of higher education (Vol. 10). Amsterdam: Sense Publications.

Pintrich, P. R. (1989). The dynamic interplay of student motivation and cognition in the college classroom. *Advances in Motivation and Achievement: Motivation Enhancing Environments*, 6: 117–160.

Pintrich, P. R. and E. V. deGroot. **(**1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82(1): 33–40.

Pityana, N. B. (2003). Higher education in South Africa: future perspectives. Keynote address at Bill Venter/Altron Literary Awards.

Plowright, D. (2011). *Using mixed methods: Frameworks for an integrated methodology.* London: Sage Publications.

Plowright, D. (2016). Charles Sanders Peirce: Pragmatism and education. New York: Springer.

Pokorny, H., and Pickford, P. (2010). Complexity, cues and relationships: Student perceptions of feedback. *Active Learning in Higher Education*, 11(1), 21-30.

Popham, W. J. (2008). Defining and enhancing formative assessment. In Annual Large-Scale Assessment Conference, Council of Chief State School Officers, San Francisco, CA.

Popham, W. J. (2011). *Transformative assessment in action: An inside look at applying the process.* New York: ASCD.

Stellenbosch University https://scholar.sun.ac.za

Potter, B. N., and Johnston, C. G. (2006). The effect of interactive on-line learning systems on student learning outcomes in accounting. *Journal of Accounting Education*, 24(1), 16-34.

Pragmatism. (2018). In *Merriam-Webster's dictionary* (11th ed.). Springfield, MA: Merriam-Webster.

Prentice, M., and Robinson, G. (2010). *Improving Student Learning Outcomes with Service Learning.* New York: American Association of Community Colleges (NJ1).

Prosser, M. and K. Trigwell. **(**1999). *Understanding Learning and Teaching: The Experience in Higher Education*. Buckingham: The Society for Research into Higher Education and Open University Press.

Pryor, J., and Lubisi, C. (2002). Reconceptualising educational assessment in South Africa—testing times for teachers. *International Journal of Educational Development*, 22(6), 673-686.

Race, P. (2014). *The lecturer's toolkit: a practical guide to assessment, learning and teaching.* Routledge.

Radhakrishna, R. B. (2007). Tips for developing and testing questionnaires/instruments. Journal of Extension, 2(5), 3 - 4.

Ramsden, P. **(**1992). *Learning to Teach in Higher Education*. London: Routledge.

Ramsden, P. (2003). *Learning to teach in higher education*. Routledge. Fourth Edution.

Ramsuran, A., and Malcolm, C. (2006). Professionalisation as a social regularity: the policy process in South Africa's Natural Science curriculum. *South African Journal of Education*, 26(4), 515-528.

Rentner, D. S., and Kober, N. (2001). Higher Learning = Higher Earnings: What You Need To Know about College and Careers. Accessed at: https://eric.ed.gov/?id=ED458440 [Retrieved on 23 August 2015]

Stellenbosch University https://scholar.sun.ac.za

Romero-Martín, R., Castejón-Oliva, F. J., and López-Pastor, V. (2015). Differences of students and faculty on the difficulties to implement the formative assessment. *Relieve*, 21(1), 5 - 9.

Ross. K. (2015). Factors influencing the academic success of first year students in chemistry at an agricultural training institution. Unpublished master's thesis, Stellenbosch University, Stellenbosch, Cape Town.

Rowntree, D. (1987). *Assessing students- how shall we know them?* London: Kogan Page.

Rowntree, D. (2015). *Assessing students: How shall we know them?* Routledge. Fourth Edition.

Roy, I.J. (2007). Staff developer's perceptions on building a culture of teaching and learning. *South African Journal of Higher Education*, 21(7):907-918.

Rust, C. (2002). The impact of assessment on student learning: how can the research literature practically help to inform the development of departmental assessment strategies and learner-centred assessment practices*? Active learning in Higher Education*, 3(2), 145-158.

Sadler, D.R. (1998). Formative assessment: Revisiting the territory. *Assessment in Education* 5, no. 1: 77–84.

Sadler, D. R. (2005). Interpretations of criteria-based assessment and grading in higher education. *Assessment and Evaluation in Higher Education*, 30(2), 175-194.

Salkind, N. J. (1997). *Exploring research* (3d ed.). Upper Saddle River, NJ: Prentice Hall.

Sambell, K., McDowell, L. and Brown, S. (1997) 'But is it fair?': an exploratory study of student perceptions of the consequential validity of assessment. *Studies in Educational Evaluation*, 23(4), 349–371.

Sato, M., Wei, R. C., and Darling-Hammond, L. (2008). Improving teachers' assessment practices through professional development: The case of National Board Certification. *American Educational Research Journal*, 45(3), 669-700.

Stellenbosch University https://scholar.sun.ac.za

Sayigh, E. (2006). Refining lecturers' assessment practices through formal professional development at Rhodes University. *South African Journal of Higher Education*, 20 (1): 161-173.

Schilling, J. (2006). On the pragmatics of qualitative analysis: designing the process for content analysis. *Journal of Psychological Assessment*, 22(1), 28-37

Schrecker, E. (2010). *The lost soul of higher education: Corporatization, the assault on academic freedom, and the end of the American university*. New York: The New Press.

Schreiner, L. and Anderson, C. (2005). Strengths-based advising: a new lens for higher education. *NCADA Journal*, 25(2):20-29.

Scott, I., Yeld, N. and Hendry, J. (2007). *A case for improving teaching and learning in South African higher education. Higher Education Monitor Series*: 6. Pretoria: Council on Higher Education.

Scouller, K. (1998). The Influence of Assessment Method on Students' Learning Approaches: Multiple Choice Question Examination versus Assignment Essay. *Higher Education*, 35 (4): 453–472.

Scriven, M. (1967). The methodology of evaluation. In *Perspectives on Curriculum Evaluation* by R.W. Tyler, R.M. Gagne, and M. Scriven (eds), 39–83. Chicago, IL: Rand McNally.

Segers, M. and Dochy, F. (2001) New assessment forms in problem-based learning: the value-added of the students' perspective. *Studies in Higher Education*, 26(3), 327–343.

Sekaran. U. and Bougie, R. (2011). *Research Methods for Business. A Skill-building Approach*. USA: John Wiley and Sons, Inc.

Shavelson, R. J., Young, D. B., Ayala, C. C., Brandon, P. R., Furtak, E. M., Ruiz-Primo, M. A., and Yin, Y. (2008). On the impact of curriculum embedded formative assessment on learning: collaboration between curriculum and assessment developers. *Applied Measurement in Education*, 21, 295–314.

Stellenbosch University https://scholar.sun.ac.za

Shepard, L. A. (1991). Will national tests improve student learning? *The Phi Delta Kappan*, 73(3), 232-238.

Slater, T. F. (1996). Portfolio assessment strategies for grading first-year university physics students in the USA. *Physics Education*, 31(5), 329–333.

Smith, E., and Gorard, S. (2005). 'They don't give us our marks': the role of formative feedback in student progress. *Assessment in Education: Principles, Policy and Practice,* 12(1), 21-38.

Sokopo, Z. N. (2004). The interactional effects of different assessment policies on the culture of learning and teaching. Unpublished PhD thesis. University of Pretoria.

Spector, P. (1992). *Summated rating scale construction*. Thousand Oaks, CA: Sage.

Squire, P. J. (2010). Student's Assessment Procedures in the Agricultural Education Undergraduate Program: The Botswana College of Agriculture Experience. *Current Research Journal of Social Sciences,* 2(6): 296-300,

Stobart, G. (2008). *Testing times: The uses and abuses of assessment*. London: Routledge.

Struwig, F.W., and Stead, G.B. (2001). *Planning, designing and reporting research.*

Cape Town: Pearson Education

Struyven, K., Dochy, F., Janssens, S., and Gielen, S. (2006). On the dynamics of students' approaches to learning: The effects of the teaching/learning environment. *Learning and Instruction*, 16(4), 279-294.

Suski, L. (2004). *Assessing student learning: A common sense guide*. USA: New York: John Wiley and Sons.

Sutherland, I and Peckman, G. (1998). A re-appraisal of assessment practices in the light of the SAQA Act. *South African Journal for Higher Education*, 12 (2): 98-103.

Stellenbosch University https://scholar.sun.ac.za

Tait, P. A. (2005). Assessment drives learning. *Journal of Pharmacy Practice and Research*, 35(3), 211-212.

Taras, M. (2005). Assessment – Summative and formative- Some theoretical reflections. *British Journal of Educational Studies*, 53(4): 466-478.

Taras, M., and Davies, M. S. (2013). Perceptions and realities in the functions and processes of assessment. *Active Learning in Higher Education*, 14(1), 51-61.

Tartakow, D. J. (2012). *What is pragmatic research*? New York: Dental Tribune.

Tashakkori, A., and Teddlie, C. (2003). Issues and dilemmas in teaching research methods courses in social and behavioural sciences: US perspective. *International Journal of Social Research Methodology,* 6(1), 61-77.

Torrance, H. (2012). Formative assessment at the crossroads: Conformative, deformative and transformative assessment. *Oxford Review of Education,* 38(3), 323-342.

Trochim, W. (2006). *Deduction and induction research methods knowledge base*. Retrieved from https://scholar.google.co.za/scholar?q=Trochim,+W.+(2006).+Deduction+and+induction+research+methods+knowledge+base&hl=en&as_sdt=0&as_vis=1&oi=scholart&sa=X&ved=0ahUKEwikydvinbTZAhVIWRQKHSGECj8QgQMIJDAA [Retrieved on 3 June 2016]

Troskie-de Bruin, C. and Otto, D. (2004). The influence of assessment practices on students' learning approach. *South African Journal of Higher Education*, Vol.18 (2) 2004: 322-335

Trotter, S. (2006). Assessment for learning. *Learning and Teaching in Higher Education,* 31(5), 505-521.

Trujillo, L. A. (2007). The relationship between law school and the bar exam: A look at assessment and student success. *U. Colo. l. Rev*., 78, 69.

University dropouts increase. (2008). Retrieved from: http://news.iafrica.com/sa/917608.htm [Retrieved on 3 March 2016]

Stellenbosch University https://scholar.sun.ac.za

Upcraft, M. L., Gardner, J. N., and Barefoot, B. O. (2004). *Challenging and Supporting the First-Year Student: A Handbook for Improving the First Year of College*. Indianapolis: Jossey-Bass.

Van Gaal, F., and De Ridder, A. (2013). The impact of assessment tasks on subsequent examination performance. *Active Learning in Higher Education*, 14(3), 213-225.

Vandenbosch, T. (2006). Post-primary agricultural education and training in sub-Saharan Africa: Adapting supply to changing demand. Unpublished manuscript, World Agroforestry Centre, Nairobi, Kenya.

Vandeyar, S., and Killen, R. (2003). Has curriculum reform in South Africa really changed assessment practices, and what promise does the revised National Curriculum Statement hold? *Perspectives in Education*, 21(1), 119-134.

Vandeyar, S., and Killen, R. (2007). Educators' conceptions and practice of classroom assessment in post-apartheid South Africa. *South African Journal of Education*, 27(1), 101-115.

Venter, E. (2001). A constructivist approach to learning and teaching. *South African Journal of Higher Education,* 15 (2):86-92.

Volkwein, J. F. (2003). *Implementing outcomes assessment on your campus.* Pretoria: Research and Planning in Education Institute.

Walvoord, B.E. (2010). *Assessment clear and simple: A practical guide for institutions, departments and general education.* San Francisco, CA: Jossey-Bass.

West, A. and Saunders, S., (2006). A humanistic approach to South African accounting education. *South African Journal of Higher Education*, 20(5), pp.718-732.

Weurlander, M., M. Söderberg, M. Scheja, H. Hult, and A. Wernerson. (2012). Exploring Formative Assessment as a Tool for Learning: Students' Experiences of Different Methods of Formative Assessment. *Assessment and Evaluation in Higher Education,* 37(6): 747–760.

Stellenbosch University https://scholar.sun.ac.za

Willig, C. (2009). *Introducing Qualitative Research in Psychology*. Maidenhead: McGraw Hill.

Wingate, U. (2007). A framework for transition: supporting 'learning to learn' in higher education. *Higher Education Quarterly*, 61(3), 391-405.

Winne, P. H. (2010). *Improving measurements of self-regulated learning*. New York: Educational Measurements.

Winter, G. (2000). A comparative discussion of the notion of validity in qualitative and quantitative research. The Qualitative Report, 4(3and4). Retrieved from http://www.nova.edu/ssss/QR/QR4-3/winter.html [Retrieved August 17, 2017]

Wormald, B. W., Schoeman, S., Somasunderam, A., and Penn, M. (2009). Assessment drives learning: an unavoidable truth? *Anatomical Sciences Education*, 2(5), 199-204.

Yin, R.K. (2009). *Case study research: Design and methods*. Fourth edition. Los Angeles, CA: Sage.

Yorke, M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. *Higher Education*, 45(4), 477-501.

Young, I. (1990). *Justice and the politics of difference*. Princeton, NJ: Princeton University Press.

Zou, P.X.W. (2008). Designing effective assessment in postgraduate construction project Management studies. *Journal for Education in the Built Environment*, 3 (1), 80-94.

Zulfiquar, T. and S. Zamir (2015). Role of Classroom Culture in Academic Learning of Students at University Level. *Development,* 13, 12 - 16.

Stellenbosch University https://scholar.sun.ac.za

ADDENDA

Addendum A (Letter from director J Aries)

Abrahams, Hilton

From:	Aries, Jerry
Sent:	23 October 2014 08:58 AM
To:	Abrahams, Hilton
Cc:	Shema, Aatika
Subject:	RE: Exam Policy

Dear mr Abrahams

Thank you very much for the email. Sorry, but we don't have an Assessment Policy at this stage.

Kind regards

Jerry

Jerry Aries
Director and Sub-program Manager: Higher Education and Training
Elsenburg Agricultural Training Institute
Western Cape Department of Agriculture
Western Cape Government
Private Bag X1
Elsenburg
7607

Cellar, Elsenburg, Muldersvlei Road

Tel: 021-808 7709
Fax: 021-808 5484
e-mail: jerrya@elsenburg.com
Department Website: www.elsenburg.com
Provincial Website: www.capegateway.gov.za

Western Cape Government
BETTER TOGETHER.

Be 100% Green. Read from the screen

Stellenbosch University https://scholar.sun.ac.za

Addendum B (Student questionnaire)

Wes-Kaapse Regering
Landbou

The potential influence of assessment practices on student learning at Elsenburg Agricultural Training Institute.

The interview will particularly focus on the students' perceptions of assessment in general (Section A) and factors that may possibly impact on academic performance while section B will ask students to comment on a specific module.

Please indicate your answer with a tick (✓) in the appropriate box.

I am a:

First Year Student	Second Year Student	Third year Student

SECTION A

		Strongly Disagree	Disagree	Agree	Strongly Agree
A1.	I understand what a formative assessment is.				
A2.	I understand what a summative assessment is.				
A3.	I am aware of the assessment policy of Elsenburg.				
A4.	There are sufficient formative assessments (tutorials, worksheets, assignments) to prepare me for my predicate tests.				

Stellenbosch University https://scholar.sun.ac.za

		Strongly Disagree	Disagree	Agree	Strongly Agree
A5.	There are sufficient formative assessments (tutorials,worksheets, assignments) to prepare me for my examinations.				
A6.	I receive feedback from my lecturers on formative assessments (tutorials, worksheets, assignments).				
A7.	The feedback I receive helps me to understand things better.				
A8.	The feedback shows me how to do better next time.				
A9.	The formative assessments I do give clear instructions about what is expected of me.				
A10.	I do not understand some of the feedback.				
A11.	I use feedback given to me to improve my learning.				
A12.	The feedback does not help me with subsequent assessments.				
A13.	The feedback prepares me for the predicate tests.				
A14.	Preparing for the predicate test was just a matter of memorising facts and information.				
A15.	I understand things better after studying for a predicate test.				

Stellenbosch University https://scholar.sun.ac.za

		Strongly Disagree	Disagree	Agree	Strongly Agree
A16.	The formative assessments and summative assessments prepared me for the examination.				
A17.	I am fine with 40% predicate and 60% examination to make my final mark.				
A18.	I believe the examination should count less towards my final pass mark.				
A19.	I believe more formative assessments must be used in all courses at Elsenburg.				
A20.	I believe more formative courses will help me to achieve a higher mark for examinations at Elsenburg.				

Stellenbosch University https://scholar.sun.ac.za

SECTION B

Complete the following section for a module you have scored the highest marks for during this semester (you could also use last semester).

Name of Module: _____

		Strongly Disagree	Disagree	Agree	Strongly Agree
B1.	During this module the lecturer explained to me what a formative assessment is.				
B2.	During this module the lecturer explained to me what a summative assessment is.				
B3.	During this module I was exposed to tutorials, worksheets and assignments.				
B4.	During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented.				
B5.	During this module I received feedback from my lecturer for my formative assessments (tutorials, worksheets, assignments).				
B6.	The feedback I received helped me to understand the subject matter better.				
B7.	During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented to prepare me for my predicate tests.				
B8.	During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented to prepare me for my examination.				
B9.	During this module the feedback showed me how to improve and do better.				

Stellenbosch University https://scholar.sun.ac.za

		Strongly Disagree	Disagree	Agree	Strongly Agree
B10.	During this module the formative assessments I did gave clear instructions about what was expected of me.				
B11.	During this module I did not understand some of the feedback.				
B12.	During this module I used feedback given to me to improve my learning.				
B13.	During this module the feedback did not help me with subsequent assessments.				
B14.	During this module the feedback prepared me for the predicate tests.				
B15.	During this module preparing for the predicate test was just a matter of memorising facts and information.				
B16.	During this module I understood things better after studying for a predicate test.				
B17.	During this module the formative assessments and summative assessments (predicate tests) prepared me for the examination.				
B18.	For this module I am fine with 40% predicate and 60% examination to make my final mark.				
B19.	For this module I believe the examination should count less towards my final pass mark.				

Thank you for your time

Hilton Abrahams

Stellenbosch University https://scholar.sun.ac.za

Addendum C (Example of student questionnaire data as generated from one student)

Wes-Kaapse Regering
Landbou

The potential influence of assessment practices on student learning at Elsenburg Agricultural Training Institute.

The interview will particularly focus on the students' perceptions of assessment in general (Section A) and factors that may possibly impact on academic performance while section B will ask students to comment on a specific module.

Please indicate your answer with a tick (✓) in the appropriate box.

I am a:

First Year Student	Second Year Student	Third year Student
✓		

SECTION A

		Strongly Disagree	Disagree	Agree	Strongly Agree
A1.	I understand what a formative assessment is.	✓			
A2.	I understand what a summative assessment is.	✓			
A3.	I am aware of the assessment policy of Elsenburg.	✓			
A4.	There are sufficient formative assessments (tutorials, worksheets, assignments) to prepare me for my predicate tests.	✓			

Stellenbosch University https://scholar.sun.ac.za

		Strongly Disagree	Disagree	Agree	Strongly Agree
A5.	There are sufficient formative assessments (tutorials,worksheets, assignments) to prepare me for my examinations.		✓		
A6.	I receive feedback from my lecturers on formative assessments (tutorials, worksheets, assignments).		✓		
A7.	The feedback I receive helps me to understand things better.		✓		
A8.	The feedback shows me how to do better next time.		✓		
A9.	The formative assessments I do give clear instructions about what is expected of me.		✓		
A10.	I do not understand some of the feedback.			✓	
A11.	I use feedback given to me to improve my learning.		✓		
A12.	The feedback does not help me with subsequent assessments.			✓	
A13.	The feedback prepares me for the predicate tests.		✓		
A14.	Preparing for the predicate test was just a matter of memorising facts and information.		✓		
A15.	I understand things better after studying for a predicate test.		✓		

Stellenbosch University https://scholar.sun.ac.za

		Strongly Disagree	Disagree	Agree	Strongly Agree
A16.	The formative assessments and summative assessments prepared me for the examination.		✓		
A17.	I am fine with 40% predicate and 60% examination to make my final mark.		✓		
A18.	I believe the examination should count less towards my final pass mark.		✓		
A19.	I believe more formative assessments must be used in all courses at Elsenburg.		✓		
A20.	I believe more formative courses will help me to achieve a higher mark for examinations at Elsenburg.		✓		

Stellenbosch University https://scholar.sun.ac.za

SECTION B

Complete the following section for a module you have scored the highest marks for during this semester (you could also use last semester).

Name of Module: ABM

		Strongly Disagree	Disagree	Agree	Strongly Agree
B1.	During this module the lecturer explained to me what a formative assessment is.		✓		
B2.	During this module the lecturer explained to me what a summative assessment is.		✓		
B3.	During this module I was exposed to tutorials, worksheets and assignments.		✓		
B4.	During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented.		✓		
B5.	During this module I received feedback from my lecturer for my formative assessments (tutorials, worksheets, assignments).		✓		
B6.	The feedback I received helped me to understand the subject matter better.		✓		
B7.	During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented to prepare me for my predicate tests.		✓		
B8.	During this module there were sufficient formative assessments (tutorials, worksheets, assignments) presented to prepare me for my examination.		✓		
B9.	During this module the feedback showed me how to improve and do better.		✓		

Stellenbosch University https://scholar.sun.ac.za

		Strongly Disagree	Disagree	Agree	Strongly Agree
B10.	During this module the formative assessments I did gave clear instructions about what was expected of me.			✓	
B11.	During this module I did not understand some of the feedback.		✓		
B12.	During this module I used feedback given to me to improve my learning.			✓	
B13.	During this module the feedback did not help me with subsequent assessments.		✓		
B14.	During this module the feedback prepared me for the predicate tests.			✓	
B15.	During this module preparing for the predicate test was just a matter of memorising facts and information.			✓	
B16.	During this module I understood things better after studying for a predicate test.		✓		
B17.	During this module the formative assessments and summative assessments (predicate tests) prepared me for the examination.			✓	
B18.	For this module I am fine with 40% predicate and 60% examination to make my final mark.			✓	
B19.	For this module I believe the examination should count less towards my final pass mark.			✓	

Thank you for your time

Hilton Abrahams

Addendum D (Lecturer questionnaire)

Stellenbosch University https://scholar.sun.ac.za

Wes-Kaapse Regering
Landbou

Interviewees: First year lecturers

Name of Lecturer,

The potential influence of assessment practices on first-year student learning at Elsenburg Agricultural Training Institute.

The interview will particularly focus on the lecturers' perceptions of factors that may possibly impact on academic performance of first-year students especially as it relates to assessment practices in the absence of an official assessment policy.

SECTION A

1. What module do you present at Elsenburg?

   _____

   _____

2. Do you think your subject (or an equivalent subject at school) should be an admission requirement for the B.Agric programme? If yes, explain why.

   _____

   _____

3. Would you say students in their first year are focussed or not focussed on their studies? What factors could influence their academic performance?

   _____

   _____

4. Do you think student support is important in the first year? How can student support help students achieve their academic goals?

   _____

   _____

5. Do you think the time table has an effect on the students' performance? In what way?

   _____

   _____

1

Stellenbosch University https://scholar.sun.ac.za

6. Do you think the exam roster has any effect on the students' performance? If so, in what way?

_____

_____

7. Are there any other factors you think could have an influence on student performance?

_____

_____

8. What would you single out as having the biggest impact on student learning at Elsenburg ?

_____

_____

9. Any suggestions on what the Institute can do to overcome the challenges students have in any of their first year subjects?

_____

_____

_____

10. Have you used any formative assessments in your module before a major assessment event (test)?

_____

_____

11. What type of formative assessments (tutorials, worksheets, etc.) did you use?

_____

_____

Any other comments

2

Stellenbosch University https://scholar.sun.ac.za

SECTION B

		Strongly Disagree	Disagree	Agree	Strongly Agree
1.	I am aware that Elsenburg has an assessment policy.				
2.	I provide extra help (extra classes, tutorials, worksheets, one on one sessions) for my students				
3.	My students are capable of passing a test without the help of an outline.				
4.	I use a rubric when assessing students.				
5.	Lecturers need to do more formative assessments before a test at Elsenburg.				
6.	An increase in the amount of formative assessments in my module would increase student pass rates for tests.				
7.	Formative assessments should be standard (compulsory) for my module.				
8.	Continuous assessment should be used in my module.				
9.	I provide timeous feedback to students after each type assessment (formative or summative)				
10.	I follow up to determine whether students understand the feedback I provide.				

3

Stellenbosch University https://scholar.sun.ac.za

11.	The feedback I provide helps students improve their learning.				
12.	The feedback I provide helps students with their subsequent assessments.				

Any general comments on the assessment of learning at Elsenburg?

Thank you for your time

Hilton Abrahams

Stellenbosch University https://scholar.sun.ac.za

Addendum E (Example of lecturer questionnaire as generated from one lecturer)

Wes-Kaapse Regering
Landbou

Interviewees: First year lecturers

Name of Lecturer,

The potential influence of assessment practices on first-year student learning at Elsenburg Agricultural Training Institute.

The interview will particularly focus on the lecturers' perceptions of factors that may possibly impact on academic performance of first-year students especially as it relates to assessment practices in the absence of an official assessment policy.

SECTION A

1. What module do you present at Elsenburg?

   __First Year: GRK 110, NHB 142

   __Senior years: NHB 210, 242, 311 and 341

2. Do you think your subject (or an equivalent subject at school) should be an admission requirement for the B.Agric programme? If yes, explain why.
   No. The admission criteria has been created to address a training need for learners that cannot get into university due to their subject choices and performances but want to have a career in agriculture.

3. Would you say students in their first year are focussed or not focussed on their studies? What factors could influence their academic performance?

   1.) Students focus on the subjects that they dis not have in school.
   2.) The lecturer that is capable to enforce the highest importance of his/her subject.

4. Do you think student support is important in the first year? How can student support help students achieve their academic goals?
   It is important in all years. Poor performance are by lectuerers ascribed to students inability to study. But many students study and not perform and not have the reasons why they perform poorly. In this way an epert on early identification of such problems and to solve it is required. The lecturer is noit this person. And is not equipped to do this early identification and the eventual support.

5. Do you think the time table has an effect on the students' performance? In what way?

1

Stellenbosch University https://scholar.sun.ac.za

It does not but lecturers that are not sticking to the credit load of modules overload students and that impact on their performance.

6. Do you think the exam roster has any effect on the students' performance? If so, in what way?
   No it does not. A few years back the timetable was blindly compiled but now the study fields with majors are taken into account for the compilation.

7. Are there any other factors you think could have an influence on student performance?

   Entertainment. Students must go to Stellenbosch for real entertainment and because of the trip it becomes an extensive trip that makes the student unable to attend to any academnic matters for 2/3 days.

8. What would you single out as having the biggest impact on student learning at Elsenburg ?
   The stigma attached to the Elsenburg qualification and lecturers that have the tendency to only ask previous papers and students only study to pass a test and don't learn anything.

9. Any suggestions on what the Institute can do to overcome the challenges students have in any of their first year subjects?
   1. Early identification of struggling students.
   2. Implement an extended program based on NBT results/ NSC ratios.
   3. Formalise and implement a tutorial program.

10. Have you used any formative assessments in your module before a major assessment event (test)?

    Yes, with high student numbers and no support for lecturers makes it difficult to have an effect on students performance. Students require quick feedback and follow ups on poor performers but this is not possible with the workload of lecturers.

11. What type of formative assessments (tutorials, worksheets, etc.) did you use?

    Tutorials, scheduled and unscheduled class tests, peer question /answer sessions.

Any other comments

2

Stellenbosch University https://scholar.sun.ac.za

SECTION B

		Strongly Disagree	Disagree	Agree	Strongly Agree
1.	I am aware that Elsenburg has an assessment policy.	X			
2.	I provide extra help (extra classes, tutorials, worksheets, one on one sessions) for my students			X	
3.	My students are capable of passing a test without the help of an outline.				X
4.	I use a rubric when assessing students.	X			
5.	Lecturers need to do more formative assessments before a test at Elsenburg.			X	
6.	An increase in the amount of formative assessments in my module would increase student pass rates for tests.	X			X
7.	Formative assessments should be standard (compulsory) for my module.	X			
8.	Continuous assessment should be used in my module.		X	X	

Stellenbosch University https://scholar.sun.ac.za

9.	I provide timeous feedback to students after each type assessment (formative or summative)				X
10.	I follow up to determine whether students understand the feedback I provide.	X			
11.	The feedback I provide helps students improve their learning.			X	
12.	The feedback I provide helps students with their subsequent assessments.			X	

Any general comments on the assessment of learning at Elsenburg?

The assessments are too rigid and there is a huge difference between modules. There is no policy for assessment and no implementation plan. The teaching and learning strategies are not adjusted despite the fact that the school curriculum changed thrice already.

Thank you for your time

Hilton Abrahams

4

Stellenbosch University https://scholar.sun.ac.za

Addendum F (Informed consent form for students and lecturers)

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Topic: How, if at all, do the experience of assessment practices at one agricultural institute potentially influence first year students' and staff's perceptions regarding academic performance?

You are asked to participate in a research study conducted by Mr H Abrahams, from the Department of Curriculum studies at Stellenbosch University.

This research study is partially conducted towards the completion of the researcher's Masters in Philosophy thesis at the University of Stellenbosch.

You are selected as a possible participant in this study because you are a lecturer at the Elsenburg Agricultural Training Institute, Department of Agriculture.

1. PURPOSE OF THE STUDY

The aim of the study is to investigate first year students' and staff's perceptions of how, if at all, the assessment practices at one agricultural institute potentially influence student academic performance?

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

1. Lecturers
    a. To complete a questionnaire with a selected group of lecturers early in the second semester to investigate the perceptions of lecturers on how, if at all, the assessment practices at one agricultural institute potentially influence student academic performance. This will be sent via email and returned via email.
2. Students
    a. To complete a questionnaire with first year students early in the second semester to investigate the perceptions of students on how, if at all, the assessment practices at one agricultural institute potentially influence student academic performance. This will be handed out to students and a return box setup on campus for students to return the survey.

Stellenbosch University https://scholar.sun.ac.za

Stellenbosch University https://scholar.sun.ac.za

3. POTENTIAL RISKS AND DISCOMFORTS

No potential risk and discomforts are envisaged at this stage. However, if something might come up, it will be dealt with in a sensible and sensitive manner.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Potential benefits could be that the students would feel valued and safe, and this could result in them acquiring a higher self-esteem and self-confidence in their own abilities, which could result in better performance in the courses that they are registered for.

The Elsenburg Agricultural Training Institute would benefit directly from the results and recommendations that will be made in that these recommendations will be implemented in the coming years hopefully, would assist more students to successfully complete their chemistry module. If this could happen, the faculty's failure rates would decrease. Lecturers could have a better idea of how students learn chemistry and what techniques might help the students succeed. Other faculties could also benefit in this way, and possibly other agricultural institutions.

5. PAYMENT FOR PARTICIPATION

No payments to the participants will be made.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of referring to students as Student 1, 2, 3, etc. and by means of themes and categories that will be identified and used in the analysis and discussions of the findings and outcomes, in the research report, the thesis, and in conference papers and articles that would be submitted for possible publication in academic journals.

The researcher further pledge that any information given by participants will be handled in the strictest confidence, and that the information students and lecturers give will not be used to reflect negatively on them in any way. The information will be stored in files that will be locked in the filling cabinet of the researcher, in her office in the old post office building.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so such as you not participating over the course of the research period.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact me at (021) 808 7658 (o); 0845868163 (cell) and email hiltona@elsenburg.com.

Stellenbosch University https://scholar.sun.ac.za

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to *me, the participant* by Mrs K Ross in *English* and *I am the participant* in command of this language. I was given the opportunity to ask questions and these questions were answered to *my* satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____
Name of Subject/Participant

_____
Name of Legal Representative (if applicable)

_____ _____
Signature of Subject/Participant or Legal Representative **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant]* and/or [his/her] representative _____ [*name of the representative]. [He*/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/*English/*Xhosa/*Other*] and [*no translator was used/this conversation was translated into* _____ by _____].

_____ _____
Signature of Investigator **Date**

Stellenbosch University https://scholar.sun.ac.za

Addendum G (Institutional permission)

Western Cape Government
Agriculture

Jerry Aries
Elsenburg Agricultural Training Institute
Email: jerrya@elsenburg.com
tel: +27 21 808 7709 fax: +27 21 808 5484

Ref: Mr. H Abrahams (53919998) – Master's degree research studies (MPhil)

Prof. Eli Bitzer
Centre for Higher and Adult Education
Department of Curriculum Studies
Faculty of Education
University of Stellenbosch

To whom it may concern

I herewith grant permission for Mr. H Abrahams to conduct his research on the influence of assessment practices on first-year student learning at Elsenburg Agricultural Training Institute.

Sincerely

J ARIES (MR)
DIRECTOR: HIGHER EDUCATION AND TRAINING
DATE: 29/09/2014