TOWARDS IMPROVING EQUITY IN ASSESSMENT FOR TERTIARY SCIENCE STUDENTS IN SOUTH AFRICA: INCORPORATING AN ORAL COMPONENT

by

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DECLARATION OF ORIGINALITY

I hereby declare that this thesis, unless specifically indicated to the contrary in the text, is my own work. This thesis has not been submitted before for any degree or examination in any other university.

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ABSTRACT

This study sought to explore some of the ways in which assessment itself needs to be treated as a feature of equity and transformation in post-apartheid South Africa. How can the classroom become a level playing field for all, not just in terms of admission and changes to the overall composition of the student body, as well as staffing, but in relation to the curriculum itself, of which assessment is a part?

In a multilingual, multicultural country like South Africa, which also carries a lot of political baggage, one has to agree that assessing all students in the same way does not mean, assessing all students equally. To assess all students in the same way, regardless of their proficiency in English and only in the mode of writing, is to ignore the wealth of diversity and potential among our student population. The ESL students in this study repeatedly indicated that they cannot express themselves adequately in writing in English and that "*the expression of the examiners*" and the "*wording of the questions*" pose a problem in the written assessments. They often find out after a paper "*what a question meant*" or what the examiner intended. EFL students too experienced problems with "*ambiguity*" and "*unclear expression*" of the examiners.

This qualitative study introduced an oral component into the present tertiary assessment structures in Science. The private nature of the written assessments does not permit interaction between student and examiner or invigilator during an examination. This means that both student and assessor in turn have to rely on their own interpretation of the written word without consulting with each other. Oral assessments on the other hand, permit live interaction. Both candidate and assessor can seek clarity from each other. Rather than grappling with understanding of each others' English, the focus can rightfully move to assessing the student's knowledge of content.

As the study endeavoured to devise a relatively new form of assessment for the South African context, it required tools and techniques that would provide for exploration and that would allow for modification along the way. An action research approach was

therefore used. This study took on what might be described as a 'hybrid' version of action research in order to investigate how as an instructor in Language Education, I could bring about change in assessment in Science. Individual and group oral assessments were conducted with undergraduate students at two tertiary institutions, *viz.* a technikon and a university, in KwaZulu-Natal. The assessments were conducted in three phases. The first phase of the assessments adapted oral assessment practices used by South African and international Science educators. The second and third phases investigated 'closed' structures devised for the individual and group oral assessments within a South African tertiary context, respectively. After each phase of the assessments, feedback from the participants was analysed and comments and criticisms were addressed. Collaboration with the participants yielded harmonious working relationships, successful administration of the assessments, and valuable contributions from the students and assessors, especially with regard to the design of the oral assessment grid.

Five main sources of data were generated in this study, *viz.* from the focus group discussions with the assessors and the students, the student and assessor questionnaires, and the assessment sessions. Triangulation, and more specifically, data triangulation was employed to ensure reliability and validity or consistency and comparability of the oral assessments.

Incorporating an oral component to the assessments meant that students could reap the benefit of the higher mark in either the written or the oral mode. Students were grateful that the assessments "*tested two different sides of a person*" and that if they could not express themselves adequately in writing, they could "*fall back on the orals*". Assessors were unanimous that "*apart from promoting understanding, the oral assessments provided many other benefits for assessors and students*". They therefore hailed the mixed-mode of assessments as a "*win-win situation*" for all the participants. The study concludes with recommendations and implications for the reform of language policy and assessment practices in tertiary education, and the need for further work in tertiary classrooms where teachers embark upon action research.

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INTRODUCTION

PREAMBLE

> To use a well-worn sporting metaphor, if the starting blocks for some people are further down the track than others, then evaluating their performance in a particular field against those of the advantaged group is discriminatory and unfair. The runners farthest from the finish line will always finish last, unless they can run substantially faster than their advantaged competitors. True equality implies that in open competition all competitors start from the same point (Sarakinsky 1993: 7)

African students, who are predominantly second or foreign language speakers of English, depending on their exposure to the language, still bear the scars of apartheid education, and are competing with their English first language speaking peers in education where the medium of instruction is English - surely this is an unfair race!

This study seeks to explore some of the ways that assessment itself needs to be treated as a feature of equity and transformation in post-apartheid South Africa. We need to use assessment methods that provide reliable evidence from which valid inferences can be drawn because without such considerations it is impossible to achieve equity in assessment. How can the tertiary classroom become a level playing field for all, not just in terms of admission and changes to the overall composition to the student body as well as staffing, but in relation to the curriculum itself, of which assessment is a part?

A BRIEF HISTORICAL OVERVIEW OF EDUCATION IN SOUTH AFRICA

In pursuance of apartheid, the South African education system was characterised by fifteen different ethnically divided administrative Departments of Education, which included Education departments for the homelands: Ciskei, QwaQwa, Lebowa, Venda, KwaZulu, KwaNdebele, Gazankulu, Transkei and Bophuthatswana. The House of Assembly controlled

White education; Indian education was controlled by the House of Delegates; Coloured education was the responsibility of the House of Representatives and African education was controlled by the Department of Education and Training. These divisions served a particular purpose of discriminating in terms of funding, resources and facilities with White education being the most privileged. The Indians, Coloureds and then the Africans on a sliding scale were allocated money and resources for education.

The Department of Education and Training did not offer English as the medium of instruction from the earliest stage of schooling. The decision to use the mother-tongue as the medium of instruction throughout primary schools was opposed by many Africans. An 'All-In' Conference held in 1956 concluded that mother-tongue instruction would have the effect of reducing the horizons of Africans, cramping them intellectually within the narrow bounds of tribal society, and diminishing the opportunity of inter-communication between the African groups themselves and also with the wider world in general of which they formed a part (Horrell 1968: 60).

Dr H.F Verwoerd, then Minister of Native Affairs speaking in the House of Assembly in 1953, in order to disempower Blacks further through language and education, said that "Bantu education must be controlled in conformity with the policy of the state ... Education must train and teach people in accordance with their opportunities in life" (Horrell 1968: 5). This meant that there was no need for blacks to be educated through the medium of English like their white counterparts as they could not aspire to higher careers or professions. English was regarded as the language of power and privilege (*see* Rockhill 1994: 240). This however, was not to remain. "The latter half of the seventies in South Africa was a time of educational ferment, if not upheaval. The loss of life, destruction of educational facilities and loss of teaching time and opportunity culminated in changes which ranged from cosmetic to fundamental" (Sookrajh 1990: 9). The South African education landscape was dotted with uprisings and events as the anti-apartheid campaigns gained momentum. 1994 heralded the birth of a new era in South African history. Democracy replaced apartheid and the ANC under the leadership of Nelson Mandela and the Government of National Unity changed the course of South African history. The doors of learning were thrown open to all, yet today, the African student having been freed from the shackles of apartheid, enters the tertiary institution still bearing the scars of apartheid education.

LANGUAGE

'Unprepared students' is a euphemistic way of talking about Black students. When Black students began to trickle into 'White' universities in the 1980s, it was sensible to adopt an academic support strategy. One does not change a large institution for the sake of a few individuals. But the trickle had become a steady stream and a flood on the way (Moulder 1995: 7-8), which means that fundamental changes are required. Grayson (1997: 107) described the Science Foundation Programme at the University of Natal as a "a year-long pre-degree programme designed to identify academically talented but underprepared black students who wish to pursue tertiary studies in science or applied science, and help them develop their potential in order to achieve this aim". In 2001, the South African government pledged to substantially fund academic support programmes at tertiary institutions in order to assist ESL students or give them support. This meant that the students would attend lectures for all the courses that they enrolled for, and then attend language development tutorials. This is currently the practice in some faculties or departments at the Durban Institute of Technology and the University of KwaZulu-Natal. But, as Moulder (1995: 7) pointed out earlier, this is "essentially a strategy for avoiding organisational change. This strategy is driven by the belief that, by and large, there is nothing problematic about the syllabi or curricula of our degrees. The problem is the large number of underprepared students who have entered the universities. Academic support programmes teach students to cope with university demands; students have to change so that the university does not have to change".

In 2004, we still face this problem where students have to bear the major responsibility of coping with the "institutional demands" and we are still clinging to some of the gate-keeping structures of years gone by. We continue to disadvantage the previously disadvantaged students who are predominantly second language speakers of English when it comes to assessment by maintaining the traditional methods of assessment employed by the institutions many years ago. The merging of higher education institutions in South Africa was aimed at the rationalising and sharing of resources and infrastructure. The mergers have resulted in major changes, but what impact have the mergers had on the day to day teaching and learning of the individual learners within the institutions? What strategies have been put into place regarding teaching and being assessed in a second language? These are real problems that students have to deal with on a daily basis.

Figaji (2001) maintains that the English second language (ESL) student in South Africa is "both literate and illiterate - literate at home, but illiterate in the classroom" (*see also* Giroux 1992: 136), literate in the mother-tongue but lost in the world of English and foreign culture/s at the educational institution. These students live two lives which are totally different from each other and they have to function as normal human beings in both worlds - a tall order for anyone! They are often labelled by their English first language (EFL) teachers as "reluctant to learn" (De Avila and Duncan 1980: 105) and "uninterested or incapable of understanding and learning" (Maharaj 1995: 52) yet these teachers fail to acknowledge the many challenges faced by the ESL student. Many teachers in newly integrated schools talk about students with 'language problems' or students with 'no language'. What this view fails to recognize is that the students they are referring to do not have a language problem in their first language and are indeed more multilingual than their teachers. They simply have difficulty in English. "The teacher has a language problem in that he or she doesn't speak their languages" (Eyber *et al.* 1997: 60) but this leads to a whole new discussion and will not be explored further as it does not fall within the ambit of my study.

Language Policy

"As we look back at South Africa's first decade of democracy, it would be a serious omission not to consider the language policy", says Kamwendo (2004: 1, *see also* Fraurud and Hyltenstam 2003; Holmarsdottir 2003; Ricento and Hornberger 1996). He adds that "language policy was one of the tools for advancing the goals of apartheid" (2004: 1) and that the post-apartheid language policy "aims at healing the wounds that were created by apartheid" (2004: 2). The government and tertiary institutions in South Africa (especially post-merger) in turn, are re-examining, discussing and finalising their language policies. According to The Advisory Panel on Language Policy to the Minister of Arts, Culture, Science and Technology (2000: 2), the basis for a comprehensive language policy in accordance with the Constitution, consists of the following principles: promoting and protecting linguistic and cultural diversity, supporting democracy through the entrenchment of language equity and language rights, viewing multilingualism as a resource, redressing the marginalisation of indigenous languages, and encouraging the learning of other South African languages. But Webb (2004b: 6) argues that the external environment consists of factors beyond the control of the South African government, but which impact directly on language

planning in the country, either as obstacles to pluralist language policy implementation or as serious challenges to it. These factors include: globalisation, westernisation, technologisation, the power of the countries and institutions which control the global economy, and the knowledge era. Alexander (2004: 15) challenges that "it is counter-intutive to claim that an entire nation will produce optimally in a second or third, not to say a foreign, language!" (*see also* Alexander 1989; Balfour 2004; Dlamini 2004). A strong advocate of a multilingual language policy, he recommends further (2001a: 7) that "university teachers do a course in the sociology of language" to make "every such professional aware of the enormous responsibility each of us carries simply because we teach in a particular language or a register of a language, all of which we take as self-evident" (*see also* Alexander 2000b, 2001b).

Webb (2004b: 6) adds further that if South Africa wants to become globally competitive, it must make certain that its training programmes produce 'learning individuals' who possess highly developed knowledge bases and high levels of transferable skills. Language is a fundamental instrument in learners' educational development. The language-in-education policy practice, must therefore ensure that the languages of instruction used, facilitate effective educational development, and do not obstruct it. We are ten years into democracy and the government has been working on implementing a policy of pluralism for all this time, but the road to success is not easy. South Africa's legacy of apartheid, the powerful public role of English, and the demands of globalisation all contribute to the fact that language policy implementation together with any form of transformation will take a long time to effect, and we should be looking for other means of addressing language issues in the present context. One such means is assessment. Since assessment determines whether a student is ready for the job market or not, we should be placing more emphasis on this crucial deciding factor in a student's life. It is necessary therefore to first examine the role of language, and especially English, given the prominence that it enjoys before embarking on a discussion about assessment.

English for Communication

The language of communication at most tertiary institutions in South Africa between lecturer and student and indeed between students who speak different languages, is English. Speakers of different languages use English as a 'neutral' language because they cannot speak each

others' languages, and also because it is assumed that they (peers and educators) have had some exposure to English, be it at school level or through the media or simply by exposure and interaction with other South Africans. While it is also true that people communicate using different dialects of their mother-tongues combined with gestures or sign, the prevalent 'common' language used at the two institutions involved in this study, is English.

Communication may be described as a two-way or "bipolar" (Huebsch 1995: 1) process where a message is sent from one source to another. The receiver of this message interprets or decodes the message within the context of his or her own experiences, culture, language background and perspectives, and responds or reacts to the message by giving feedback to the sender. This feedback may be verbal (spoken) or non-verbal (for example, in the form of facial expressions, signs or gestures). The feedback enables the sender to determine whether the original message sent was correctly interpreted or understood. If the message was correctly received, the communication processes continues. If the message was not correctly understood, the sender may re-phrase or resend the message in another form. Fielding (1993: 4) defines communication as a "transaction whereby participants together create meaning through the exchange of symbols". This definition takes into account that people give meaning to words and that the same words may have different meanings for different people. People therefore have to work together to co-create meaning. Meaning in turn is shaped by numerous factors, for example, level of education of the participants; cultural, social, educational, historical, socio-economic, language and demographic backgrounds; and physical, emotional and psychological needs of the participants. Thus, meaning between the same two participants could have different meanings in different contexts because it is dependent on many factors. Communication between people takes place for a variety of reasons, be it to exchange information, to purchase goods, to get a ride home, or to order a meal. Communication between lecturer and student in the classroom occurs primarily for the exchange of ideas, for teaching and learning, to collaborate on issues and for assessment purposes. Communication can occur through writing, speaking, singing, dancing, art, sign-language or basically any form that permits the transmission of a message. The relevance of communication is also content specific and communication in different settings has to ascribe to different conventions, so, communication in the workplace between, for example, a manager and his employee will differ from communication between two friends at a party.

Communication in the classroom requires mutual understanding between participants. Since human beings are basically gregarious, the continual and complex system of mutual understanding and reacting is of such a nature that, should the basic proficiencies be lacking, the necessary understanding, insight, empathy, knowledge and general communication would be impossible (Huebsch 1995: 1). If the student is not proficient in the language of the medium of instruction, the student will experience many problems with regards to understanding, note-taking, reading and comprehending texts, and assessment.

English as the Medium of Instruction

English is used as the medium of instruction at most tertiary institutions and South Africa, yet English is the second, third or sometimes foreign language for the majority of our students. Alexander (2000a: 1) says that "there is little doubt that the language issue is one of the main factors explaining the disastrous drop-out and failure rates, which affect mainly black students". According to Rutherford and Nkopodi (1990: 445), the reasons for using English as the medium of instruction in South Africa are many: English is regarded as a high prestige language; there are difficulties in implementing a new scientific vocabulary at an arbitrary stage in an educational system. The scientific population will not understand the new terminology, that is, there are lexical and semantic considerations; the logico-grammatical connectors [for example, words like: when, consequently, hence] necessary for scientific thought and analysis are frequently not available in the vernaculars [the mother-tongue of the ESL students]; such important parts of speech as articles [for example: 'a' or 'the'] do not exist. This could lead to confusion in interpretation; pronunciation in many of the vernaculars can fundamentally change the meaning of a word or phrase. There have been suggestions for educationists and the government to discard the above line of thinking and to "move towards making more literary works and subjects such as mathematics available in standardised languages" (Mangena 2002: 14) as "African children do worse than other population groups in maths, science and other content subjects. Research by universities has shown that language is one of the greatest barriers to success" (2002: 14). For now though, the *status quo* in terms of the medium of instruction and assessment remains.

Several problems relating to the relationship between language and scientific thought have been identified, firstly there are often problems with the English used in textbooks and

lectures, where students have trouble with some of the non-technical words in Science, for example, 'in terms of', 'hence ', 'conversely', 'apparently', and 'theory', and secondly, with the way in which ideas are structured and presented (*see* Ballard and Clanchy 1991; Bird and Welford 1995; Cassels 1980; Cassels and Johnstone 1983a, 1983b; Clerk and Rutherford 2000; Gardner 1972, 1975; Hazel *et al.* 1997; Helm 1980; Lawson *et al.* 1984; Logan and Bailey 1989; Lynch and Jones 1995; Rollnick and Rutherford 1993, 1996; Rutherford and Nkopodi 1990; Strevens 1976; Sullivan 1977; and Whorf 1969).

Then of course, students experience problems with the scientific terminology or jargon. Jiya (1994: 80) found that "the interpretations of scientific phrases and concept-words have a great influence on the conceptual learning of students, especially those who are taught in English and come from a school background which is disadvantaged educationally". He went on to say that "many of the words used in Science are also in use in common everyday conversational language. Science students have to handle the same concept words but with not quite the same meanings. For those students whose first language is not English, there are many problems related to linguistic transfer. Words like 'force', 'energy' and 'power' may be interpreted as one word 'amandla' in most indigenous languages in Southern Africa" (1994: 80). Childs and O'Farrell (2003: 234) agree that "non-technical vocabulary presents a particular problem for science teaching in a mixed class of native and non-native speakers. These are terms that have one or several meanings in an everyday setting but have a specific and sometimes different meaning or connotation in a scientific context".

From my experience, I have found that the ESL students especially, also experience problems with the accents of lecturers, how fast they speak and the examples that they may use. Lecturers on the other hand, complain that the students do not read widely enough and they therefore cannot comprehend or follow the lecture in class. Machet (1991: 91) states that "comprehending a text is an interactive process between the reader's background knowledge and the text". This means that because the context, language and therefore the examples are in English and outside the ESL reader's life experiences, they are unable to identify with the texts. Bird and Welford (1995: 397) concluded from their study that the wording of questions in Science examinations is a real influence on the performance of second language students. Jiya's study (1994: 82) revealed that students may know what they are asked to do, but they just find it difficult to write in English as they make a lot of spelling mistakes and

misunderstand words. The issue of the language barrier was supported by then Deputy Minister of Education, Mosibudi Mangena (2001: 19) who said that "in our search for solutions to the problems of poor attainment of our learners in maths and science, a number of academics told us that the low standard of English among our learners was a big factor".

In my work with ESL students, I have found that they experience problems in an English medium class because they listen to the English of their lecturer, then translate into their mother-tongue for understanding and while they are translating and/or trying to write notes in English, their lecturer has continued talking, and they miss out on this discussion, resulting in them often not being able to follow the rest of the lecture or parts thereof. So, when the lecturer asks: "do you understand?" or "do you have any questions?", the ESL student immediately has a few considerations: "What do I ask? Do I ask the lecturer to re-teach or repeat those sections that I missed (while I was translating) - and how will the lecturer and the rest of the class react to that?" or "How do I phrase my question in reasonably good English so that the others don't laugh at me?" or "Will the lecturer understand my question?" or "Will I have to re-phrase it so that she or he can understand my English? This would really be embarrassing". So, while all these thoughts are going through the student's mind, the lecturer accepts that they have all understood because no-one asked questions and moves on with the lesson. Guhde (2003: 3) agrees that "some ESL students may be uncomfortable asking the instructor for specific help with their language skills".

Problems associated with English as the medium of instruction are not only peculiar to the Sciences, but to other subjects as well and this "can be traced back to the inadequacies in backgrounds at both primary and high school levels" (Nyamapfene and Letseka 1995: 162). Educationists and especially subject lecturers at tertiary level are sometimes reluctant to take on the task of teaching and/or correcting student's language as they have their own syllabi to complete and they feel that language problems should have been dealt with at school level or by the language lecturers at tertiary level. Clerk and Rutherford (2000: 715) feel that "language must now assume a far greater importance for Science education than it hitherto had. Not only must language become a matter for consideration in diagnostic and remedial situations, as an alternative or adjunct to conceptual change, but the role of language during instruction must be carefully examined". One has to be realistic and admit that instruction in the specialist subject takes place in a language that is not the mother-tongue of the majority of

the class, which makes language an 'issue' or 'force' to be reckoned with for the subject lecturer. Saville-Troike (1991: 7) agrees that "language does not exist in a vacuum, and how it is developed, and for what purpose, lies beyond but is inextricably intertwined with language form and use". Language must be taught within context. Science teachers and language teachers need to work in an integrated manner to make learning more meaningful. Crandall (1998: 1) concurs that "to learn academic English requires the use of academic English. Content teachers cannot expect students to arrive in their classrooms fully proficient in academic English; nor can English teachers leave the task of presenting academic texts and tasks to the content teacher". An integrated approach to teaching and learning through the medium of English has to be negotiated to suit the classroom and institutional environment. Childs and O'Farrell (2003: 245) add that many opportunities arise in the course of a normal Science lesson to create opportunities for language enrichment, without needing to be a language specialist and the Science teacher may well be able to take advantage of these to the benefit of the students.

Multilingualism and Monolingualism in South Africa

It is rather ironic that English as the medium of instruction which was denied to Blacks in the apartheid era in a bid to disempower them, now poses other problems in the democratic era. The Constitution of South Africa affords official recognition to eleven languages, that is, English, Afrikaans, Zulu, Venda, Swati, Ndebele, Northern Sotho, Southern Sotho, Xhosa, Tswana and Tsonga . This is however not reflected in education. As Head of The Pan South African Language Board (Pansalb), Cynthia Marivate said, "we may have the best policy in the world promising equal recognition to our languages. But it's going to be a long, hard haul to take the good intentions and make them practical" (Marivate 2001: 6). English is still the medium of instruction at most tertiary institutions in South Africa forcing the Black student to study in a second or foreign language (*see* Prabhakaran 1998: 83).

The Constitution of the Republic of South Africa (Act 108 of 1996) specifically deals with language and language rights. The language sections in the Constitution are driven by the following principles: the recognition and constitutional protection of multilingualism [section 6 (1) (3)]; the acceptance and consideration of the diverse linguistic reality in SA [section 6 (3)]; language rights are recognized as a fundamental right. Therefore neither

the state nor any individual may directly or indirectly discriminate against any person on the basis of language [section 9 (3) (4) and section 7 (1)]. It would seem therefore, that all languages are thriving in the new democracy, but, in practice, "South Africa is becoming more and more monolingual in public life, with English being used for most official and formal functions in most domains in the public and private sector" (Webb 1998: 127; *see also* Maartens 1998: 16-17; McDermott 1998: 105). The anomaly is though, that English is not known well enough by the majority of the population, yet, English is the medium of instruction at most schools and higher education institutions. The many years of apartheid education has left a bitter trail of injustice which cannot just be wished away. With the changing student population in all sectors of education, classrooms are becoming more multilingual and multicultural in their make-up. This means that the educator is faced with students that come with different levels of language and linguistic ability and cognition, varying cultural, home, school and educational backgrounds. This mixture of languages, cultures and levels of cognition pose tremendous challenges for the educator and for the education system at large.

Students are only able to articulate the discourse of a discipline once they have a conceptual grip of the theoretical tools of the discipline, the material under discussion, and a sense of how language is used to express ideas in that discipline. The challenge for the ESL student is to acquire "not only the linguistic cues, but also the succeeding layers of sedimented meaning that have accumulated behind those terms in the discipline" (Taylor *et al.* 1988: 8) so, it is not just the jargon of the discipline, but also the nuances and deeper meanings attached. In order to understand this, students have to understand the language of discourse and the associated culture very well.

South Africa is a democratic country with eleven official languages and many other languages that do not enjoy official status but which are supported in the constitution (*see* Prabhakaran 1998: 87). While there are several options regarding the way in which the issue of disadvantage in terms of language can be addressed, one must also carefully examine the practicalities of each option. Presently, there is much discussion in South Africa on 'additive bilingualism', 'multilingualism' and overcoming the 'deficit' in African languages (yet variability is what counts) and equipping these languages to "develop" fully (Alexander 1997: 89, *see also* Alexander 1996, 1999). But, Walters (1997: 93-94) agrees, "this cannot be

accomplished immediately", we should be looking for immediately employable solutions for the present students.

One option proposed by the then Minister of Education, Professor Kader Asmal (Govender 2002: 5) is to teach and assess students in their mother-tongue. In my opinion, this would work well if any of the following conditions existed:

> If all people living in a particular region spoke the same language. The local institution could then provide instruction and assessment in the language of the region. It does not help, to say for example, that since the majority of the people in KwaZulu-Natal speak isiZulu, the language of instruction for this province should be isiZulu as this excludes the minority language groups (of which there are many) in KwaZulu-Natal.
>
> If higher education institutions were not being merged. This would mean that there would be more than one institution in a particular region and each could cater for one or more (depending on resources and infrastructure at the institutions) language groups. Again, it would have to be decided whether educators will be trained in all eleven languages or just the predominant languages of a region. This would require vast funding from the government and willingness on the part of educators to be trained in the different languages. The cost of such a training programme would be enormous in terms of finances, time (to train individuals without sacrificing teaching time) and sustainability. It would take a long time to implement this system, because government could spend a lot of money training educators and then have to re-train new educators entering the system as others retire, resign or take voluntary exit packages. Also, if an educator relocates from one region to the next, within the country, it would mean that they would need to undergo training in the predominant language/s of the new region.

One has to also ask how soon this programme proposed by Professor Asmal can be implemented, while Pretorius (2001a: 1) challenges that if the government wants to change the language policies of the institutions, "it should have begun to recognise the practical

implications a long time ago". It is safe to assume then that this system which still has to be researched (if implemented in whatever form) will take a long time before it can be employed. In the absence of one common language per region and English as the dominant language in industry, it would make sense for the moment to maintain English as the medium of instruction of teaching and testing. Also, without the vital infrastructures, manpower, resources and finances to immediately implement mother-tongue education at tertiary level in South Africa, we should examine other approaches to teaching, learning and testing using English as the medium of instruction.

South Africa is also faced with unique challenges in the classroom as the majority of the students are ESL speakers of English, some of whom come from backgrounds where their parents or families have little or no knowledge of English, while others still speak English at home. Some of the minority groups in the classroom are EFL speakers of English, again with different backgrounds in terms of proficiency in English. A change in the system of education must benefit all students, we cannot implement changes to suit one linguistic group to the detriment of others.

English and Assessment

Having noted the problems experienced by students in terms of the medium of instruction, it is now necessary to examine what impact the experience in the classroom has on the students' academic achievements, that is, on their assessment. English proficiency and cognitive language skills "are essential for the achievement of learners who are required to complete assessment tasks in English, and who use English to perform assessment tasks in other learning areas" (Barry 2000: 20), as language and achievement are directly linked. Assessment directly affects students' immediate futures and their whole future careers, because even decades after they complete their last examinations, their assessment results continue to be scrutinized when they apply for promotion, or change jobs or career directions. "Assessment acts as a mechanism to control students that is far more pervasive and insidious than most staff would be prepared to acknowledge" (Boud 1995: 35). The methods of assessment employed play a vital role in determining the students' opportunities in life. Students can, with difficulty, escape from the effects of poor teaching, they cannot (by definition, if they want to graduate) escape the effects of poor assessment.

Mcqwashu (1999: 9) sums up the plight of the ESL student in terms of assessment when he said that "students from disadvantaged educational backgrounds fail to decode texts, not to speak about their failure to write essays that demonstrate an insightful understanding of such texts. Lecturers on the other hand, find it difficult to assess work written by these students". This is echoed by Garcia and Pearson (1994: 373) who found that many of the newer, alternative assessments tend to "rely heavily on students' ability to read and write standard English". The problems experienced by the students with regards to English, highlighted above, include: reading, writing, and understanding, while the lecturer experiences problems in understanding the students' expression.

Each of the factors above plays a vital role in any teaching or assessment situation. If students and educators are experiencing such problems, urgent measures need to taken to rectify the situation. Having used traditional methods of assessment over the years, many educators, for different reasons are reluctant to try out new forms of assessment. Teachers' anxieties about assessment are too often focused on the limitations of assessment and its perceived potential to harm some children and students rather than on the beneficial effects it could have on learning (Heywood 2000: 15). Literature searches and a survey of assessment practices in higher education institutions in South Africa (*see Chapter Two for details)* revealed a heavy reliance on written assessments which determine the final grade for students.

> Unfortunately, while we are using multiple methods of teaching, from hands-on-manipulation and cooperative learning groups, to on-the-job learning for adolescents, we still find ourselves wedded to the paper and pencil type of assessment. Thus, we need to create alternative assessment techniques; no longer are paper-and-pencil tests adequate assessment. We need something besides the portfolio of written work, too (Boe 1995: 4).

If traditional assessment practices in the multilingual and multicultural classrooms in our country are not working adequately, then there is an urgent need for innovative assessment.

DEMARCATION OF THE PROBLEM

Since starting as a lecturer in the Department of Language and Communication at a

Technikon, eleven years ago, I have noticed that ESL students demonstrate a distinct difference in their ability to speak English (which they do reasonably well) and to write English (which they do poorly). The common complaint amongst lecturers is that they "*cannot decipher or understand what the students have written because of their poor expression*". Lecturers note also that in tests and exams, "*most ESL students are inclined merely to regurgitate class-notes or portions from their prescribed texts without giving any indication that they have digested the notes or texts or engaged in any way with them. All too frequently the questions themselves are ignored or twisted to suit the students' chunks of learned text*". The fact that ESL students, in particular, resort during tests and examinations to asking invigilators to explain 'what' the questions mean, 'how' they should answer particular questions and 'what' they are expected to do, seems to suggest that learning and being assessed through a second language and primarily through the written word is of particular disadvantage to ESL learners. I must add here that from my experience as examiner and as invigilator, I have often been asked by EFL students as well to explain questions on the examination paper. So, it is not only the ESL students that experience such problems.

Any assessment process is an interaction between certain questions, items and/or procedures, and the student being assessed (Black 1990: 19). When this "interaction" is lacking, students may perform badly. In written assessments, the student engages with the questions, but is not allowed to ask the invigilator or the examiner to rephrase the questions or to explain the questions in a different or simpler form. Therefore, if the students do not understand the question or the English being used, there will not be any meaningful "interaction" and this could lead to the student performing badly or failing a paper. Also, the question could be phrased ambiguously or the meaning may not be clear, but because the student is not allowed to seek clarity, she or he may misinterpret and not be able to "interact" meaningfully with the question. Ong (1978: 3), among others, notes the problems which written-only assessment has for learners, "in a written piece of work, students make assertions which are totally unsupported by reasons, or they make a series of statements which lack connections ... in conversation, if you omit reasons backing a statement and your hearer wants them, the normal response is to ask you for them, to challenge you. For the writer, the situation is completely different. No one is there to supply a really communicational context, to ask anything ..."

People are social beings, and interaction with others is a necessary part of being human. If students are only assessed in writing about their subject content, one is left to wonder whether students will be confident enough and possess the necessary skills to engage in verbal discourse within and about their area of specialisation or study. In Science, and especially in the field of medicine, the doctors / specialists / technologists need to be able to talk to their patients / receptionist / suppliers and to other professionals in their field. Does our present system of assessment allow us to focus on the students' ability to communicate their thoughts and ideas, listen to others, comprehend information and give appropriate feedback? Sullivan (1985: 2) made a strong case for communication when he said that, "the difference between a chemical engineer who can communicate effectively and one who can't, is roughly $20 000 a year!" This is echoed by Levine (1997: 52) who says that "test scores are proxies for what people actually do in the real world and we would do well to begin putting more weight on accounts that are closer to the real world experience".

The question to be asked is this: does the use of the same written only assessments for both the EFL and ESL students, disadvantage particularly the ESL students? This question is based on the following assumptions (borne out of my experience with ESL students): even though they might understand the content of the course, they cannot answer the questions. The reason for this may be, that they cannot understand the instructions/questions, especially if there is a difference between the way in which a section was taught in class and the way in which that section is tested. Cultural bias in the material (both in the course content and the test) used, further disempowers them as this hampers understanding. In addition to coping with their own inadequacies in respect of time-management, memory, recall and examination stress (like any other student), the ESL student also has to cope with the problems associated with writing and being assessed in a second language (Compare: Mcqwashu 1999, Goodwin and MacDonald 1997, Lolwana 1996 and Penny 1980).

Vygotsky's "zone of proximal development" (1978: 86-87), which refers to the distance or gap between the "actual developmental level" and the "potential development" of the learner, lends support to the fact that assessment practice hitherto has made little effort to help students' reveal their true potential. This is in light of the fact that written assessments are not interactive by nature, that is, they do not permit "guidance" by the examiner or invigilator or "collaboration" with peers. This is particularly apt for the ESL student, who is being assessed

in English and through the written only mode of assessment. Oral assessment provides such support in the form of face-to-face communication where both assessor and student can seek clarity from each other, and where the assessor or peers can assist the students who experience problems associated with language. Vygotsky's "zone of proximal development" suggests that the student's potential to learn can be enhanced by "adult guidance" and "collaboration with more capable peers" (Vygotsky 1978: 86-87) and this is prevalent in oral assessment. If the students cannot understand the questions, how can they answer meaningfully? The ESL students are faced with a double challenge when they are assessed in writing in English. Firstly, they are being assessed in a language that is not their mother-tongue – this results in problems with understanding and comprehending the written English as well as expressing themselves appropriately so that they may be understood by their assessors. Secondly, they are expected to answer in writing in this second language – they have to translate their thoughts into English and then put these thoughts down in writing (while trying to observe the linguistic rules) so that their assessors can comprehend their answers. They have to rely on their expression in writing to convey the exact meanings in their heads. Only when one assesses all the related problems associated with these challenges, can one understand the plight of the ESL student. This is supported by Hilliard (1997: 229, 235) who articulates the given that "[t]eaching and learning ... testing and assessment ... are rooted in and dependent upon language". A direct consequence is revealed in the fact that poor expression in English may lead to misinterpretation by the assessor (in the written exam) and since the students are not present (while their scripts are being assessed) to explain their answers, they may be unjustly penalised.

The EFL and ESL students at the Durban Institute of Technology and the University of KwaZulu-Natal are assessed throughout the academic year using the same tests and examinations. In fact, to the best of my knowledge, no tertiary institution in South Africa allows the ESL students extra time to write their examinations. No allowance is made for ESL students to grapple with the cognitive complexities (undesirable as it might be) of translating questions in English into their mother-tongue, thinking about the question, formulating an answer, and translating the answer back into English in written form. The time required for such translation (common among ESL and other second language learners) is not recognised and ESL candidates are thus unintentionally disadvantaged and penalised.

Reference is made above primarily to the plight of the ESL student because they are assessed in a language that is not their mother-tongue. Cognisance must also be taken of the fact that EFL students also experience problems with assessment, perhaps because of the wording or expression of the questions, or because of their own deficiencies in terms of their language skills. It is important to bear in mind that even though they are classified as first language speakers of English, students come from different language and demographic backgrounds which impact on them. Also, proficiency in a language is dynamic, which means that proficiency in a language changes with exposure to different influences and variables. All too often, researchers and educators focus on finding solutions to problems experienced by ESL students only, thus (unintentionally) ignoring the plight of the EFL student. My research seeks to address the issue of assessment to the benefit of both the EFL and ESL student.

THE AIM, FOCUS AND KEY QUESTIONS OF THE STUDY

The purpose of the study was to examine assessment practices in tertiary Science classes both locally and overseas and to devise a system of assessment that would address the problems experienced by the students within the present system in South Africa. Tertiary education in South Africa has and still is, making major strides in addressing inequalities of the past, but are assessment practices adequately addressing the needs of the majority of our student population? Is the practice of assessing ESL (English second language) students and EFL (English first language) students using the same assessments throughout the year fair to all students? The question that my research endeavoured to answer was: how can comprehension, understanding and expression in assessment for students (both EFL and ESL) and assessors be facilitated without disrupting the present traditional systems of assessment in South Africa?

My response to the above question was borne out of literature, internet and database searches, related studies, surveys of local and overseas tertiary institutions, and my own experience in multilingual and multicultural tertiary education. My research attempts to answer the following questions: How can students be assisted to understand and comprehend questions/instructions more clearly? How can assessors be assisted to understand and comprehend students' responses/answers more easily? How can assessments be structured so that uniformity and standards are maintained while recognizing individuality? How can the

present traditional written only assessments be complemented or adapted to suit the changing demographics of our classrooms? What form should these assessments take? How should these assessments be structured? How should marks be allocated for the assessments? Can marks for the different modes of assessment used, be combined, resulting in a mixed-mode of assessment? The intended outcomes of my study are: to arrive at a more equitable assessment system *vis a vis* ESL students; to arrive at a system of assessment that will benefit all students regardless of whether they are EFL or ESL students; to devise such an assessment specifically for the South African context and test it; to bring information about such assessment in writing into the public domain.

Situating Myself in the Study

As van Manen (1990) and others have suggested, qualitative researchers need to situate themselves within their own work as part of acknowledging the ways in which subjectivity and experience infuse the work. Having taught at a secondary school and then moving on to tertiary education, I had initially worked with students who came from relatively similar backgrounds, in terms of their population or race classification. These students came from homes where English was widely used as the language for communication, as a result, they communicated well in English and teaching through the medium of English did not pose a real problem. However, I also taught Afrikaans as a subject, and this proved to be a real challenge as students had very little exposure to Afrikaans which was gained predominantly through the media. This does not compare at all with the very diverse cultural, social, economic, educational, historical and language backgrounds of the students that I had to teach at the technikon. At school, the students studied Afrikaans as a subject and all their other subjects were taught in English. At the technikon, students from the diverse backgrounds were taught in English. The poor results obtained by students in their assessments often frustrate them as they feel that they have studied well in preparation for the tests or examinations and yet they cannot achieve good results.

Assessment of students coming from these diverse backgrounds has always been of interest to me because the students in our multicultural and multilingual classrooms are not 'empty vessels', and I believe that their knowledge is just not being appropriately 'tapped'. Like the students in my 'Afrikaans classes' who could explain the content in English, the ESL

students at tertiary level cannot express their knowledge adequately in English. I decided to research this notion by being actively involved in the research process. I did not want to simply collect data from educators and students about their assessment experiences, I wanted to collaborate with them and be a part of the whole process. I wanted to 'experience' the assessments for myself. Engaging in participatory action research allowed me to be "a genuine participant" (McMillan 1996: 245) in the research process. By being an active participant, I was able to observe, provide information, talk to the assessors and students and

provide support. I was not an outsider to the process. This also enabled me to report my findings firsthand. In other words, I benefited from the interpersonal communication activities of which I was a part.

DEFINITION OF KEY TERMS

First Language

A first language may be defined as that language which the learner learns, and is taught first "in his [or her] initial relationships with others, the world and himself [or herself]" (Jardine 1976: 21). It is usually the mother's or the home language. This is the language of "understanding and interaction, the language of his [or her] home and those around him [or her]" (Maharaj 1995: 17).

Second Language

A second language is one that becomes another tool of communication alongside the first language; it is typically acquired in a social environment in which it is usually spoken (Klein 1988: 19). A second language may be learnt or acquired because it is usually 'the' or 'an' official language of a country and is therefore the language of commerce and industry. Another reason for learning a second language is for education - the second language may be the language of instruction or educational material may be available in that language (Maharaj 1995: 17).

ESL/EFL

ESL refers to speakers of English as a second language.
EFL refers to speakers of English as a first language.

My study acknowledges that it is not only the ESL students who experience problems with English, but the EFL students as well. Diverse linguistic, cultural, social, domestic, historical and educational backgrounds lead students to interpret or perceive things differently. My

study also recognises that just by virtue of the fact that a student speaks English as a second language, does not mean that he or she is a "weak" student, in other words, ESL student does not equate to "incapable" just as EFL does not equate to "bright". The classifications simply refer to whether English is the student's first or second language.

Black / African

For the purposes of this study, a distinction has been made between 'Black' and 'African' . Black refers to the Indians, Africans and Coloureds in South Africa.

Indians and Coloureds were schooled in the medium of English. Africans were schooled partially in their mother-tongue and partially in English. The majority of African people in South Africa speak English as a second, third or even foreign language.

Assessment

Assessment may be defined as any method used to better understand the current knowledge that a student possesses (Dietel *et al.* 1991: 1) and it "consists, essentially, of taking a sample of what students do, making inferences and estimating the worth of their actions" (Brown *et al.* 1997: 8).

Assessors

Concerns who judges the worth of the student's responses (Joughin 2000: 3). Assessors make

judgements about the work presented by the students. Assessors may be the subject lecturer or they may be specifically selected by a department to examine students. Assessors may work together as a panel, in pairs or individually depending on the needs of a subject or department. The type of assessment may also demand different types of expertise in terms of the assessors.

Words/Terms Used Interchangeably in this Study

In the course of this study the following words or terms will be used interchangeably:

- examiner/assessor/evaluator
- student/candidate/assessee
- participant/respondent
- lecturer/educator/academic

Institutions involved in this Study

The assessments conducted in my study took place at the ML Sultan Technikon, Durban and the University of Natal, Durban - prior to their mergers. The ML Sultan Technikon and Natal Technikon merged on 1 April 2002 to form The Durban Institute of Technology. The University of Natal and the University of Durban-Westville merged on 1 January 2004 to form the University of KwaZulu-Natal.

OVERVIEW OF THE STUDY

The change from apartheid to democracy did not mean the demise of discrimination in education. While it is acknowledged that vast changes have taken place since 1994, some of the old 'gate-keeping structures' in education, and particularly in assessment need to be addressed. In this first chapter, I have sought to contextualize my study by discussing education, language and assessment within its historical context in South Africa.

The second chapter discusses the theoretical and conceptual framework for this study. The role of language in assessment is examined and assessment practices are critiqued in this

chapter. Discussion follows on the incorporation of an oral mode of assessment conducive to the South African tertiary context, into the present system of assessments.

Questionnaire surveys were conducted of South African and international tertiary institutions in Science in order to determine assessment practices and procedures at the different institutions. Analyses of these surveys are presented in Chapter three. These surveys provided essential background for this study as it highlighted past and current practices as well as the experiences of educators with these methods of assessment.

Chapter four focuses on the methodological approach to the study. Reasons are forwarded for choosing a qualitative rather than a quantitative approach to the study. The methodology used, *viz.* an action research approach details how the research was structured, the models adapted and the roles of the participants and myself in the research. The primary concern when dealing with assessments, is the reliability and validity thereof. Being a qualitative study, the comparability and consistency of the oral assessments are discussed in this regard. Chapter four also focuses discussion on two of the instruments used for gathering data, *viz.* the questionnaires and the focus group discussions. This chapter culminates in an explanation of the procedure used for the oral assessments within an action research context.

Chapter five reports on the findings of the field work in the two sites, The University of Natal, Durban and The M.L. Sultan Technikon, Durban. The questionnaires and focus group discussions with the assessors and students are analysed by grouping the data under thematic categories. The weighting of the marks for the two modes of assessment, that is, the oral and written modes, are also discussed. Assessors' and students' suggestions for change to the proposed format of the assessments are presented.

Chapter six summarizes the study and the final section of my dissertation in this chapter focuses on suggestions for further research possibilities.

CHAPTER TWO
THEORETICAL FRAMEWORK

INTRODUCTION

The aim of this study was to draw on international and local assessment practice in science at tertiary level, in order to devise a system of assessment that would address the needs of the EFL and ESL students and complement the present systems of assessment to suit the South African climate. To do this, I had to position my research within a theoretical framework and make explicit its position within the body of literature. The first section of this chapter opens with a discussion of the epistemological framework which underpins the study and is followed by a discussion on the situated nature of assessments which focuses on the construction of knowledge within a community of practice. The second section discusses issues related to assessment. This section on assessment briefly discusses Outcome-Based Education in South Africa before examining the position of English as a language of power, by focusing on developments in the fields of 'critical learning' and 'multiliteracies'. I then discuss the role of language in assessment by examining the relationship between proficiency and academic achievement, and strategies employed to assist LEP learners, before moving on to a discussion on assessment in Science.

A discussion on the prevalent assessment practices in Science exposes the merits and de-merits of current practice before moving on to the section on assessments in the South African context. This is followed by a discussion on the incorporation of an oral component into assessment. An interrogation of the merits and de-merits of using oral assessments concludes the chapter.

FRAMEWORK OF THE STUDY

Constructivism

> Until recently, the accepted model for instruction was based on the hidden assumption that knowledge can be transferred intact from the mind of the teacher to the mind of

> the learner... Unfortunately, all too many of us who teach for a living, have uncovered evidence for the following hypothesis: teaching and learning are not synonymous. We can teach, and teach well, without having the students learn ... Knowledge is constructed in the mind of the learner (Bodner 1986: 873).

Killen (2000: 14) agrees that "teaching is only teaching if learners learn". He defines teaching as "the process of helping students to understand information and to transform it into their own personal knowledge" where teachers become "facilitators of knowledge" (2000: 10). Objectivism proposes that knowledge is "transferred" (Caprio 1994: 211) from "an authority to a passive learner" (Roth 1994: 198). In contrast, constructivism advocates that before coming to your class students have a multitude of unique experiences and a wealth of prior knowledge about a range of subjects. "Individual students bring with them personal beliefs and knowledge about how the world works" (Colburn 2000: 2) into the classroom (*see also* Bauersfeld 1998; Desaultes 1998; Glynn *et al.* 1990, 1991; Matthews 2004; Null 2004; Pepin 1998; Tobin 1998, 1990b, 1990c; Tobin and Gallagher 1987; Tobin and Tippins 1993). Caprio (1994: 210) adds that students "have been dealing with the natural world with their own laws of motion, concepts of evolution, and atomic theories. Some of the paradigms are invalid, some are just fine as they exist, and others are incomplete". It is the task of the teacher or facilitator to assist the student to build on this knowledge. Caprio (1994: 210-211) emphasizes that "if the new material is to become a part of the student's view, then the learner must construct the knowledge on the existing framework. Thus the name: Constructivism".

Students must not be regarded as 'empty vessels' or being without any knowledge. Constructivist learning theory involves trying to help students change their beliefs to be more in line with those held by the scientific community (Colburn 2000: 2) which does not mean that students must be indoctrinated into understanding science "more or less the same as their instructor's" (Caprio 1994: 211). The role of the teacher in the constructivist classroom according to von Glasersfeld (1987: 16) is not to dispense 'truth' but rather to help and guide the student in the conceptual organization of certain areas of experience (*see also* von Glasersfeld 1989, 1993, 1998). Gorodetsky *et al.* (1997: 423) add that assessment should focus on the "learner's qualities rather than on the transmittance of disciplinary knowledge".

Roth (1994: 198) concurs that learning is an interpretive process, as new information is given meaning in terms of student's prior knowledge, which means that each learner actively constructs and reconstructs his or her understanding rather than receiving it from a more authoritative source such as a teacher or a textbook (*see also* Roth 1993; Roth and Roychoudhury 1993, 1994).

According to Pressley *et al.* (1992: 5) science, math and reading educators with constructivist orientations contend that various forms of knowledge, including knowledge of strategic procedures, are applied more generally if constructed by learners than if explicitly taught to them. Constructivists then, posit the individual's construction of knowledge rather than the knowledge simply being 'transferred' to the individual. The role of the individual is recognized as being central in the creation of knowledge. By implication then, the 'world' of the learner which constitutes prior knowledge, experiences and beliefs which in turn have been shaped by their home, cultural, educational and social backgrounds play an integral part in shaping this 'world'. Rodriguez and Berryman (2002: 2) agree that knowledge is socially constructed and mediated by sociocultural, historical, and institutional contexts. Quay (2003: 3) therefore regards constructivism as limiting because it "views learning as a process that applies specifically to the individual person". Fleury (1998: 158) adds to this criticism, by stating that "construction of knowledge has traditionally been viewed among mainstream educators as an individual's personal action, with little consideration given to the influence of social context and environment on cognition". Quay (2003: 3) goes on to say that "the salient nature of this limitation is revealed when the possibility of a small group of people learning through their social interaction as a collective is considered, aptly described as social constructivism" (2003: 3). The constructivist view is thus extended by the social constructivist perspective.

Social Constructivism

> Although learning environments are necessarily personal, each individual's constructions are mediated by the actions of others in a social setting and characteristics of the culture in which learning is situated...Thus, actions and interactions of those participate in an educational setting shape individual constructions of the learning environment and the culture of the classroom provides a

pervasive 'reality' that is experienced by the individuals who comprise a social setting (McRobbie and Tobin 1997: 197).

Social constructivism proposes that "collectives of persons are capable of actions and understandings that transcends the capabilities of the individuals on their own" (Davis *et al.* 2000: 68). They add that learning is always collective: embedded in, enabled by, and constrained by the social phenomenon of language; caught up in layers of history and tradition; confined by well established boundaries of acceptability (2000: 67). Each individual comes to the classroom with his or her own 'reality' which in turn is shaped by interaction with others and the environment itself. Cobb 1994; Fleury 1998; Greenfield 1999; Roth 1994; Vygotsky 1978, 1981, 1987, 1993 emphasize the influence of social context and environment on cognition. Human beings do not exist in isolation and therefore do not learn in isolation. They interact with others, be it their teachers or their peers and as Vygotsky (1981: 163) succinctly states, "relations among people genetically underlie all higher functions". The social context is of great value in construction for the individual. Moll (1993: 3) explained that Vygotsky's 'zone of proximal development' requires that "maturing or developing functions must be fostered and assessed through collaborative, not independent or isolated activities. He emphasized that what children can perform collaboratively or with assistance today they can perform independently and competently tomorrow" (*see also* Moll and Greenberg 1993). Their realities are constructed upon and this enables them to progress from one stage of learning to the next.

Taking Rodriguez and Berryman's (2002: 2) comment about the sociocultural, historical and institutional contexts, and Fleury's (1998: 158) recognition of the influence of the social context and environment on cognition, further, this view of social constructivism needs to be extended even further to embrace culture because every individual functions within a cultural context. The context of the institution with its own culture, the historical contexts of the different cultures within which individuals operate, and the influence of the environments (both at home and the institution) must be borne in mind. According to Boeren (1994: 78), each culture constructs its own 'reality', and no doubt, this construct influences the way members of a culture perceive and understand the things and ideas they are confronted with in life. Culture then is an essential component for one's creation of reality. The dynamism of culture is reflected in the dynamic nature of learning and of constructing reality.

Davis *et al.* (2000: 70) regard "individual knowledge, collective knowledge and culture" as "three-nested, self-similar levels of one phenomenon". This, they say, explains the shift from "the individual's efforts to shape an understanding of the world to the manners in which the world shapes the understanding of the individual". The social and cultural background of the individual has enabled the individual to create their own reality. Their interpretations of the world are influenced by this reality. Further interactions and experiences are influenced by this reality and in turn these new experiences influence and shape the individual's interpretation of reality. Moll (1993: 15) agrees that in Vygotsky's theory about the zone of proximal development, "the emphasis is on social activity and cultural practices as sources of thinking". He adds that educational settings are social creations, they are socially constituted, and they can be socially changed (1993: 15). Blanck (1993: 44) concurs that mental activity is the result of social learning, of the internalization of social signs, and the internalization of culture and social relationships.

Taking Vygotsky's emphasis on the social context of thinking further, an elaboration of his theory on the zone of proximal development is necessary as Vygotsky regarded the role of "peer interaction" (Tudge 1993: 159) and the "adult" (Tudge 1993: 155) as important in that they can "aid children's development" (Vygotsky 1978: 86). Vygotsky defined the zone of proximal development as the distance between the real level of development and the potential level of development (1978: 85) and as "those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state" (1978: 86). Collaboration with another person, either an adult or a more competent peer, in the zone of proximal development thus leads to development in culturally appropriate ways (Tudge 1993: 157). As mentioned earlier, the role of the individual in this interaction must be borne in mind. The types of interaction that the individual engages in will determine to a large extent the 'level of development' that takes place. Collaboration or interaction with less competent others could have negative influences on the individual's development (*see* Ames and Murray 1982; Bearison *et al.* 1986; Dosie and Mugny 1984; Murray 1982; Perret-Clermont 1980). This can be avoided in the classroom setting where the teacher guides the activities and ensures that collaborations are mediated, that is, the teacher is present and a part of the collaboration so that interactions and therefore learning are guided.

The Use of 'Signs'

According to Wertsch (1993: 114), Vygotsky's theme of mediation claims that "human activity (on both the interpsychological and the intrapsychological plane) can be understood only if we take into consideration the 'technical tools' and 'psychological tools' or 'signs' that mediate this activity". He adds that Vygotsky's primary emphasis when examining mediation was on the sign systems used in human communication, in particular, speech (1993: 115). The use of these signs follows a developmental progression which is shaped by social processes. Diaz *et al.* (1993: 135) trace this progression as follows:

> First, from the very beginning, auxiliary signs are brought in and given to the child by the social environment in order to control, direct, and regulate the child's behaviour. Second, the child actively begins to use signs in order to influence other people and act on others around him. Third, the word, as a sign with socially shared meaning, is the most useful sign in children's attempts to master their environment. Finally, basic processes are transformed mostly as a function of children's use of speech as a tool for planning and guiding their activity; the same speech that mediates social interaction is used as the main mediator of cognitive activity.

The role of speech must therefore be carefully considered within the educational environment, where it is assumed that the learner is at a particular level of development in terms of speech. This is of particular importance in the context of the second language learner. At the first stage, as mentioned above, the auxiliary signs given to the ESL learner by the "social environment" are based on the individual's mother-tongue. As this ESL learner progresses into school, the signs change to suit the school culture or the school environment where a different language is used. Any subject is learned through the medium of a language and if students are not proficient in that language, they could experience many problems in terms of understanding the educator, taking down notes, or comprehending lectures or texts and this could lead to poor performance in their assessments. Schlebusch (2002: 1) agrees that the learners' ability to participate meaningfully in school learning activities is intimately linked to their proficiency in the language of learning at school (*see also* Allen *et al.* 1990; Court 1988; Cummins 1992, 1984; Ortiz 1997).

The learner's attempts to "master" this environment are thus thwarted by the signs of the second language. This in turn affects the learner's cognitive activities. The problems

experienced by the ESL learners with regards to language cannot just be ignored in the hope that they will naturally assimilate themselves into the learning environment. The ESL learners have to be assisted in some way, for example, through language instruction programmes in the medium of instruction or bridging courses which teach the fundamentals of a course thereby enabling the learner to cope with instruction in a second language at a higher level, or, in the case of a multilingual classroom, the context of learning a subject could be changed to suit the demographics of the learners.

The context of this study was grounded in a social constructivist epistemology that emphasized both the individual and collaborative construction of knowledge within a cultural, and historical framework. This framework took into account the individual's home and educational environment in shaping the development of the learner. The use of signs or speech as posited by Vygotsky's developmental theory formed an integral part of this study, because as he says (1978: 24), the use of speech as a tool of thought transforms the structure of practical activity, creating and giving birth to the purely human forms of intelligence.

THE SITUATED NATURE OF ASSESSMENTS

In everyday life, according to Lave (1988: 69-70), "individuals experience themselves as in control of their activities, interacting with the setting, generating problems in relation with the setting and controlling the problem-solving processes" He adds that "in contrast, school and experiments create contexts in which children and 'subjects' experience themselves as objects, with no control over problems or choice about problem-solving processes". The ESL learners are at a further disadvantage because they also have "no control" over the language or medium of instruction which poses numerous problems for them. Schlebush (2002: 10) emphasizes that LEP (Limited English Proficiency) learners are part of the educational system and are to be nurtured and encouraged to attain their maximum level of achievement, just like all other learners in the education system". The "signs" they are accustomed to, are not adequate in their interactions or the learning situations. The school environment therefore differs fundamentally from their life outside and they struggle with the problem-solving processes. The educational experience is not authentic or socially meaningful. Killen (2000: 17-18) says that assessment tasks must be as authentic as possible because assessment in a

realistic situation has inherently greater predictive validity than does assessment in non-authentic ways (such as paper and pencil tests).

Valencia (1997: 1) says that "performance assessment is a term that is commonly used in place of, or with, authentic assessment". Within a constructivist framework, the term authentic assessment generally refers to "assessing students while they are doing noncontrived tasks, such as laboratory experiments, or are involved in other real-life problem solving situations" (Colburn 2000: 4) or as Valencia (1997: 1) says, "it aims to assess many different kinds of literacy abilities in contexts that closely resemble actual situations in which those abilities are used". Tobin (1990a: 405) adds that learners must be given opportunities to "experience what they are to learn in a direct way" and Fruger (2004: 1) concurs that "tests are't the only way to gauge a student's knowledge and abilities, just as reciting formulas and memorizing the periodic table is not the only way to learn chemistry", they must be given "the experience". Larochelle and Bednarz (1998: 3) agree that since knowledge is always knowledge that a person constructs, there is a need to encourage greater participation by students in their appropriation of scholarly knowledge. To this end, Sutton (1996: 3) calls for "re-humanizing" in the Science classroom where "we should be cultivating in the classroom a much greater sense of the human voice behind the major scientific ideas, and of the argumentative struggles involved in establishing them ... as well as developing in pupils a greater sense of their own involvement". McRobbie and Tobin (1997: 197), agree that students should be encouraged to be involved in putting language to ideas, testing their understandings with peers and listening to and making sense of the ideas of other students.

According to Killen, assessment requires practitioners to "contextualize what they do in relation to the world outside" (Mentz 2004: 2), while Spady (1994: 18) adds that prominence must be given "to the life-roles that learners will face after they have finished their formal education" and that will prepare them "to deal with the world beyond the classroom (Spady 1999: 1). Authentic assessments resemble real life tasks, because in the real world, graduates are not just expected to write down all their responses or interactions, they engage in verbal discourse and other activities. Their education should therefore prepare them to take up their positions in the vocational or working world. Webb (2004a: 1) agrees that "an important element in the development of vocational literacy is language, particularly in the sense of language as an instrument in the acquisition of knowledge and the development of skills, as

an instrument in the construction of identity (values, norms, attitudes, aspirations, understanding, self-confidence) and as an instrument of social interaction". The concept of 'authentic assessment' is extended by Lave and Wenger (1999) to the 'construction of knowledge within a community of practice' which demands that learning be made relevant to the students' everyday lives. Teaching and learning must take place within appropriate contexts that will enable them to function optimally within their communities, in the belief that true learning will prepare them for their life outside the classroom. As Shor (1997: 1) says, "we are what we say and do. The way we speak and are spoken to help shape us into the people we become. Through words and other actions, we build ourselves in a world that is building us".

Construction of Knowledge within a Community of Practice

Goodman and Goodman (1993: 225) advocate that "language, written language included, is learned most easily in the context of use. When language is whole, relevant, and functional, learners have real purposes for using language, and through their language use they develop control over the processes of language". Learners have to use language, that is, they must read, write and speak a language in order to gain mastery. In order to learn how to write in a language, learners must practice writing in that language. To be able to engage in verbal discourse in a language then, learners must practice the oral or verbal use of a language, because "skills cannot be isolated from their use, in fact, they develop most easily in the context of use" (Goodman and Goodman 1993: 227). Vygotsky also emphasized that everyday and scientific concepts are interconnected and interdependent; their development is mutually influential and in order to make schooling significant one must go beyond the classroom walls, beyond empty verbalisms; school knowledge grows into the analysis of the everyday (Moll 1993: 10). In other words, schools must provide real experiences by allowing learning to occur in real settings. Lee and Fradd (1996: 652) said that learning Science with understanding does not merely include familiarity with scientific terminology and an ability to do exercises and drills in a science textbook; rather becoming science-literate means being capable of applying knowledge to one's individual life, recognizing the diversity and unity of the natural world, understanding strengths and weaknesses of technological applications, and exploring scientific questions rather than getting the answers right (*see also* Nelson 1999).

Researchers (Carraher and Schliemann 1982; Lave 1988, 1993; Lave *et* al. 1984; Lave and Wenger 1999; Rogoff 1990,1999; Rogoff and Gardner 1999; Roth 1994; Scribner 1984, 1999; Wenger 1998) have found that there are many discrepancies between what is taught at school and the real practice in everyday life. In other words, the culture of the practices at school do not correspond with the culture of practice in everyday life. The question to be asked then, is what is our education system preparing our students for, if not for practice in everyday life? Especially in the tertiary sector which is directly responsible for preparing students for their vocations or careers after they complete their education, it is vital that classroom practice mimic the practice in the real world. To this end, Lave and Wenger (1999: 100) argue that, "rather than learning by replicating the performances of others or by acquiring knowledge transmitted in instruction, we suggest that learning occurs through centripetal participation in the learning curriculum of the ambient community". They explain further (1999: 98) that this implies "participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities".

The conceptual framework for my study, then, was built upon the contrast between a "modern" view of assessment and a "postmodern" one. The modern view of objective assessment depicts the frequent use of tests, administered at different grade levels to show what learners know and/or have learned. Scores on these tests stand for what is in the minds of students and the "typical" student is assumed to be an English speaker. A postmodern view of assessment does not see the "typical" student but individual students with widely ranging backgrounds and needs (Genishi 1997: 45-46). Post-apartheid South Africa opened the doors of learning to all its people which led to multicultural and multilingual classrooms. These classrooms are made up of students who come from different socio-economic, political, geographical, cultural, language and educational backgrounds. This means that they bring with them different experiences and world views into the classroom. Their needs and aspirations are therefore different and they have different goals in terms of their education, in mind. The change in the political climate in South Africa since 1994 has also led to changes in terms of the goals within the different population or race groups. There are now more opportunities for some groups and less for others which shapes the individuals' goals and aspirations in terms of education. Roth *et al.* (1999: 74) concluded from their study that "to get to know each other's worlds, students and teachers would have to begin to interact with

each other; they would have to enter each other's lifeworlds by participating in a common discourse. Our observations in this and other physics classrooms around the world suggest that interacting with others, discussing experimental results, exploring each other's ideas and constructing phenomena in small-group and whole-class sessions are listed by students as their greatest need".

Roth (1994: 200) found that workers were highly accurate in solving problems that emerge out of their everyday practices and that the performance of these workers dropped significantly on structurally equivalent paper-and-pencil problems, although the problems were embedded in familiar context. Roth concluded that learning is essentially situated in and thus a function of the physical and social context. This means then that the best way to learn would be within the "context" of everyday practice. If we are training our students to take their place within the science community, then we must ensure that their construction of knowledge takes place within the appropriate contexts and that their training and their assessments must be situated within these contexts, because as Lave (1988: 14) explains, knowledge constructed in practice is the locus of the most powerful knowledgeability of people in the lived-in world. Vygotsky (Wertsch 1985: 166) agreed that the thinking abilities of children develop as a result of attempting to communicate with other human beings. "In social-constructivism, language and dialogue are critical to the development of knowledge, for it is through dialogue that the community is able to construct common knowledge, and it is through internal language that individuals construct their idiosyncratic expression of the community's knowledge" (Mandeville and Menchaca 1994: 320). This "dialogue" should be carried forward into tertiary education, where students are grappling with their medium of instruction and the content of the various courses they are studying.

Within a social constructivist frame, then, I tried to devise an alternate system of assessment that would not disrupt the present system of traditionally written assessments in South African tertiary Science. It is within this situated learning framework that my research is based, that students cannot effectively solve problems or perform optimally if the teaching and assessment practice does reflect the real world or if it does not mimic the world in which they will need to function as graduates. Coupled with this, within the South African context is the dilemma of the second language student and all the associated problems of learning and being assessed through a second language. But, any innovative method of assessment used

must be valid and we need to ask ourselves what is it that we actually want to measure? What are we trying to assess? Is it merely how much students can remember about what they have read? Is it merely how well they can write about what they remember, about what they have learned? Is assessment measuring what has been learned, and not just what has been taught? Are we measuring learning, or are we paying too much attention to the ways that students communicate their learning in writing? If the latter, are we giving appropriately weighted credit to students' communication skills, and making sure that we are not measuring the same skills more frequently than we do? (Race 1999: 67). These are important considerations that one should be mindful of when conducting an assessment.

ASSESSMENT: RELATED ISSUES

> Assessment is acknowledged to have many different purposes and audiences. For example, assessments are used to qualify students for special services; to report to school boards, states, and parents; to evaluate program effectiveness; to monitor student learning and adjust teaching strategies; to evaluate student's growth over time; to engage students in self-evaluation; and to understand students' strengths and needs... when assessment and instruction are melded, both teachers and students become learners. Teachers become more focused on what and how to teach, and students become more self-directed, motivated and focused on learning (Valencia 1997: 1).

The "melding of assessment and instruction" will first be explored by a discussion of Outcome-Based Education in South Africa, followed by the issue of language in the context of the South African classroom. As mentioned in *Chapter One*, the language debate in South Africa continues to dominate discussions regarding the context of the ESL learner. What follows is an exploration of recent developments in the fields of teaching and learning within a second language context.

Outcome-Based Education

South African institutions follow an Outcome-Based Education (OBE) system. What follows is a discussion of this system focusing primarily on the work of Spady and Killen, who are

world renowned in the field of Outcome-based Education. Spady (1994: 1) describes OBE as a system that clearly focuses and organizes everything "around what is essential for all students to be able to do successfully at the end of their learning experiences. This means, starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction, and assessment to make sure this learning ultimately happens". These outcomes refer to what students should be able to do or achieve at the end of their learning experiences. The outcomes are expressed in terms of the knowledge, skills, and attitudes to be achieved by the learner.

Killen (2000: 2) explains that there are two common approaches to OBE. "One approach emphasizes student mastery of traditional subject-related academic outcomes (usually with a strong focus on subject-specific content) and some cross-discipline outcomes (such as the ability to solve problems or to work co-operatively). The second approach emphasizes long-term, cross-curricular outcomes that are related directly to students' future life roles (such as being a productive worker or a responsible citizen or a parent)". He adds that it is important for teachers to start by "considering the long-term outcomes and work backwards to specify the short-term outcomes" (2000: 12) that will guide their lesson planning. The cumulative effect of the short-term outcomes should help achieve the desired long–term outcomes. Spady (1994: 18) and Killen (Mentz 2004: 2) stress the importance of preparing students for their life-roles after formal education or after they graduate.

Outcome-Based Education favours an integrated approach so that subject content is not taught in isolation. In other words, outcomes are based on integrating knowledge, skills and attitudes across disciplines. This means for example, that a Science lesson could incorporate outcomes that promote language development, groupwork, teambuilding, problem solving and subject-specific content. Killen (2000: 12-14) emphasizes that in an OBE system, you cannot assume that all students will learn at the same rate or learn equally well from the same experiences. He therefore calls for instructors to be "innovative" (2000: 14) in order to be successful. This means that teachers should be flexible and creative. They should adapt their methods and strategies to accommodate the diversity of their learners. Killen adds (2000: 11) that teachers must provide students with sufficient opportunities to practice using the new knowledge and skills that they gain because application of knowledge and skills is also an essential component of authentic assessment. When teachers can state clearly how they will

determine whether or not students have achieved each outcome, and to what level of competence these outcomes are to demonstrated, they will be ready to develop an appropriate system for assessing individual students and reporting their progress (Killen 2000: 12). Outcome-based education requires that in order to accommodate the differences that individual learners present, traditional methods of assessment may have to make way for more suitable approaches to assessment.

Killen (Mentz 2004: 2) believes that "a teacher should not assess unless she or he is very clear why she or he is assessing. She or he could assess in order to: allocate marks/grades or to make decisions about certification; provide feedback to learners; diagnose learner difficulties; and report progress to parents". Whatever the approach to assessment, Killen (2000: 18) says that to be useful in an OBE system, assessment should conform to the following principles:

> the assessment procedures should be valid – they should actually assess what you intend them to assess, they should be reliable –they should give consistent results, they should be fair – they should not be influenced by any irrelevant factors such as the learner's cultural background; assessment should reflect the knowledge and skills that are most important for students to learn; assessment should tell teachers and individual students something they do not already know, that is, it should stretch students to the limits of their understanding and ability to apply their knowledge; assessment should be both comprehensive and explicit; assessment should support every student's opportunity to learn things that are important; and, because learners are individuals, assessment should allow this individuality to be demonstrated.

These (former) principles are expounded further in the body of this study both in the design of an assessment system and in the administration thereof. The latter principles are evident in *Chapter Five* which discusses the findings of this study.

English as a Language of Power

With English being the medium of instruction at most tertiary institutions in South Africa, it means that students coming into these institutions from non-English speaking backgrounds, or from backgrounds where other languages (for example, isiZulu or isiXhosa, to name just two) are spoken as the mother-tongue, results in students having to cope with instruction and

texts, and therefore assessments in a second or foreign language. English in the educational context, enjoys a position of power over the other indigenous, official or minority languages in South Africa. Bartlett (2003: 1) argues that critical issues relating to language, such as language policy and planning, literacy instruction in theory and practice, and the role of language ideologies in educational politics "such as the globalization of educational policy and the convergence and divergence of educational practices, the attempted use of schools to create more democratic, egalitarian relations among linguistically and culturally diverse populations, and the relationship between schooling and economic development" are central to debates in the comparative education field. Bartlett suggests further that debates in literacy studies have much to offer in this field. According to Lee and Fradd (1996: 252) "literacy development, including manipulating materials, describing, and communicating outcomes, forms the basis of scientific literacy". van Duzer and Cunningham (1999: 1) add that for those "who recognize that language use is not neutral, critical literacy is a means for examining the interaction of language and power relationships". What follows, is a brief overview of developments in the field of critical literacy.

Critical Literacy

History and economic forces have given some languages symbolic power (Janks 1994: 50) and the way in which people use these languages portrays them in associated positions of power, and "critical literacy is an attitude towards history" (Shor 1997: 1). In the South African classroom where English is (mainly) the medium of instruction, those who speak, write and understand English well, are the ones in a position of power over those students who may not be very proficient in the medium of instruction. Stein and Newfield (2004: 29) agree that "the role of talk, of deliberation through discussion, is critical in developing students' ability to make reasoned arguments, to cooperate with others, and to appreciate the perspectives and experiences of other points of view" They add that the "western forms of critical argument" favour those students who are proficient in the language of communication and "exclude those who have not had access to such discursive practices".

Moumou (2004: 53) says that critical language awareness is essential in promoting democracy as it is a "means to make learners empowered language users". When ESL students are able to use the language of the medium of instruction, that is, English

proficiently, they feel empowered to cope with the demands of education by concentrating on the subject matter rather than the language itself. Fairclough (1992: 6) agrees that people cannot be effective citizens in a democratic society if their education cuts them off from critical conciousness of key elements within their physical or social environment. Janks (2000, 2002) argues that critical literacy must be continually re-examined in light of changing circumstances, be they social, cultural, political or technological changes.

Prinsloo and Janks (2002: 31) refer to critical literacy as "a socio-cultural critique of the production, reception and circulation of language and image in text that is concerned with the cultural and ideological assumptions that underwrite texts with the politics of representation. It proposes a particular lens through which to receive and produce texts that necessitates shifts in both theory and practice away from established ways of teaching literacy". Advocates of critical theory emphasize that students must be educated or trained to critically appraise texts within the context of their own and social, language and historical contexts and within their broader experiences in the world. From these perspectives, they must be able to interrogate texts and not passively accept the worlds or 'truths' that are portrayed in them. To this end, Moumou (2004: 53) says that students need to develop a greater awareness of wider social practices, arrangements, relations, allocations and procedures which are spread and maintained through language. Shor (1997: 2) adds that "critical literacy is language use that questions the social construction of the self. When we are critically literate, we examine our ongoing development, to reveal the subjective positions from which we make sense of the world and act on it" (*see also* Aronowitz and Giroux 1985: 132; Kretovics 1985: 51; Menacker 1998: 3). Empowerment of the student comes from a critical examination of information and texts which consequently impacts on the identity of that student by allowing him or her to critique the 'truths' from a subjective viewpoint. Comber (2002: 3) adds that the teachers play the role of "cultural worker" in that they must "recognise the diverse cultural and discursive resources that learners bring to classrooms" (*see also* Freebody and Luke 1990; Luke and Freebody 1999).

Freire and Faundez (1989: 34) challenge Vygotsky's 'zone of proximal development' as "one-way development" where only the student benefits, with 'critical teaching' where all participants become redeveloped. Shor (1997: 9-10) extends Freire and Faundez's comparison by explaining that "by inviting students to develop critical thought and action on

various subject matters, the teacher herself develops as a critical-democratic educator who becomes more informed of the needs, conditions, speech habits, and perceptions of the students, from which knowledge she designs activities and into which she integrates her social expertise'. This leads to a mutual learning process where both learner and educator benefit from each other, but Freire (1973: 52) cautions though, that if the teacher uses too much of authority, it could destroy this mutual benefit, because "the difficulty lies in the creation of a new attitude – that of dialogue, so absent in our upbringing and education".

Teachers have to learn to allow students to enter "the dialogue", to give them a voice, they have to learn to share their 'power' if they want teaching and learning to be mutually beneficial. Stein and Newfield (2004: 29-30) propose that this notion of 'talk' or communicative work be extended to incorporate "multiple semiotic practices of representation, including visual forms of communication, the gestural, and action". Students are therefore encouraged to express their thoughts not only through written language but also through videos, drawings, paintings, murals, photographs, making quilts or objects, by reciting praise poems or singing. This is in accordance with Gardner's theory of multiple intelligences.

Gardner (2004a: 1) suggests that there are a number of distinct forms of intelligence that each individual possesses in varying degrees, that is, linguistic, musical, logical-mathematical, spatial, body-kinesthetic, intrapersonal (for example, insight, metacognition) and interpersonal (for example, social skills). Gardner (2004b: 6) claimed that "the seven intelligences rarely operate independently. They are used at the same time and tend to complement each other as people develop skills or solve problems". Gardner (1999: 77) added an eighth intelligence, that is, 'naturalist intelligence' to his list. According to Gardner, the implication of the theory of multiple intelligences is that teaching and learning should focus on the particular intelligences of each person, which represent different learning modalities, and assessment of abilities should measure all forms of intelligence (*see also* Gardner 1982, 1983, 1993). The fragmentation of a unitary, universalist conception of literacy into a multitude of literacy practices had numerous effects within the field of social studies of literacy, and the New London Group proferred the concept of 'multiliteracies' (Bartlett 2003: 4).

Multiliteracies

Fehring (2004: 3) said that we need to cater for the diversity of our students and their knowledge by employing multimodal and multidimensional assessment techniques. She explains 'multimodal' as "the multiple modes through which humans process information – reading, writing, viewing, speaking, listening and any combination of these key modes of communication (graphic/viewing and listening, etc.)". Fehring regards 'multidimensional' as "the range of forms within one category of literacy", for example, within the category of writing, teachers need to assess writing involving different genre (narrative, argumentative, explanation, exposition, etc.); writing that involves drafting, editing and proofreading using the computer (web design, Power Point presentations); writing that involves publishing on the www; and writing that involves critical, analytical and reflective reading and writing practices. According to Fehring (2004: 5) the word 'multiliteracies' was coined because of two important emerging trends. The first trend, she said, deals with the growing significance of cultural and linguistic diversity while simultaneously recognising that English is becoming a world language (*a lingua mundi*) and a common language of global commerce, media and politics (*a lingua franca*). The second trend, she adds, is the influence of new communications technologies, where meaning is made in multimodal ways, for example, world wide web and interactive multimedia.

Newfield and Stein (1997: 3) interpret 'multiliteracies' in a broad sense to include technological forms of communication as well as the literacies (mainly orally based) of communities in South Africa who have not had access to print based or screen based technologies". They stress the importance of exploring aspects of multimodality thereby giving students a range of options by which to communicate their thoughts rather than by limiting them to the print media. In their module, Theory, Evaluation and Development of teaching materials, which formed a part of their English Masters course, "the concept of exposing learners to multiple discourses and multiple Englishes through classroom-based materials which draw on their diverse representational resources (the visual, the performative, the written, the oral, the behavioural, the gestural)" was an explicit course aim. For Newfield and Stein (1997: 5), multiliteracies implied "giving our students more than one mode in which to respond" (*see also* Newfield *et al.* 2003). Cope and Kalantzis (2004: 1) add that "to find our way around this emerging world of meaning requires a new, multimodal literacy",

where meanings are made on the World Wide Web, or in video captioning, or in interactive multimedia, or in desktop publishing, or in the use of written texts in a shopping mall.

According to Cope and Kalantzis (2004: 1) the term 'multiliteracies' argues that "our personal, public and working lives are changing in some dramatic ways, and these changes are transforming our cultures and the ways we communicate". They go on to discuss how "we have to negotiate differences everyday, in our local communities and in our increasingly globally interconnected working and community lives". This they say, has led to English "breaking into multiple and increasingly differentiated Englishes, marked by accent, national origin, subcultural style and professional or technical communities" (*see also* Cope and Kalantzis 2000). With all of these influences on English, we need to take a more critical look at English within our local schools and communities. Especially in the multicultural classrooms where students from divergent backgrounds communicate, the 'differences' in English are apparent and bound to influence each other. The influence of the different accents, use of slang and other expressions as well as the differences in pronunciation may well lead to a 'different English' being spoken by students in a particular class or an institution for that matter. These students will then venture out into the working environment with their different Englishes and may in due course be influenced by the Englishes that abound within their working environment. We cannot predict though or be certain about the extent of the changes that these influences will bring. We also cannot generalise that all students' language or English will be influenced by these diversities, we need to consider the students as individuals with different perceptions and life experiences.

Having considered the developments in the field of literacy, and considering the classroom as the setting where teachers can make a difference to the learning context of the student, it is necessary to focus attention on the classroom as the setting where assessment takes place. Any educational setting must take into account the assessment of the learners, because assessment (in whatever form) determines the *level* of achievement or development of the learners. An exploration of the relation between language and assessment would allow us to understand the learning and assessment context, especially of the ESL learner.

Language and Assessment

Bell 2004; Cummins 1989; Guhde 2003; Nutta and Pappamihiel 2004; Ramirez *et al.* 1991; Saville-Troike 1991; Simon 1985; Wallach and Butler 1984; Garcia-Vazquez *et al.* 1997; and Webb 2004a found evidence for a positive relation between verbal language proficiency and academic achievement, where the academic problems are directly related to a language problem. Baker (1993: 175) explains that ESL students "lag behind" their EFL peers in Mathematics and Science because their second language skills are "insufficiently developed to be able to think mathematically and scientifically in their second language". Research shows that students develop social language known as Basic Interpersonal Communication Skills (BICS) through interacting with peers in formal and informal settings and that this type of language is distinct from the variety of English required for academic success (Nutta and Pappamihiel 2004: 2, *see also* Collier 1987; Cummins 1984). This language required for academic success is termed (CALP) which means Cognitive Academic Language Proficiency. BICS refers to interpersonal communication skills which can be described as a language's "surface fluency" which is not cognitively demanding, while CALP is the "cognitive linguistic competence" which is closely related to academic ability (Garcia-Vazquez *et al.* 1997: 337). Academic ability also encompasses the acquisition of concepts in Science, the ability to relate these concepts to the learning situation and the performance of higher order tasks or skills. Collier (1987, 1989) and Cummins (1980, 1981, 1984) suggest that BICS is typically acquired in about two years, while CALP may be acquired in a period of four to nine years.

Nutta and Pappamihiel (2004: 2) explain how this means that appearances can be deceiving, because although "an English language learner may seem fluent, if she experiences difficulty with academic tasks in content areas or language arts, it may be due to a lack of CALP". They go on to say that the students' native language or first language therefore needs to be supported by providing bilingual aides and instructional materials, and to do this, teachers need to know the students' educational background. Saville-Troike (1991: 2) agrees that "when students begin learning a second language, they do not start learning all over again, but interpret meaning in terms of what they already know – not just about language, but about the context in which it is being used, and about strategies for social interaction".

Acknowledging the learners' educational background, Saville-Troike (1991: 2) adds that "the process of second language learning is heavily dependent on prior experience and apparently on the nature and level of first language development" (*see also* Cummins and Swain 1986). Bell (2004: 5) says that "it is the higher order mental strategies, sometimes called 'thinking skills', developed and implemented through the L1 [first language] initially, which can be transferred into the L2 [second language], and improve academic achievement in and through the L2". If the learner's 'thinking skills' in the first language are not developed, then so too, will the learners' cognitive ability remain underdeveloped. This means then, that when the learner tries to study through a second language, his or her 'thinking skills' will also not be developed, and the learner will bring a "lower cognitive academic proficiency to the task and be disadvantaged" (Bell 2004: 4).

While English language learners may have the cognitive capacity to grasp material, they "may lack the language skills to comprehend explanations of complex concepts and to express their thoughts" (Nutta and Pappamihiel 2004: 2). They add that in these situations, comprehension of instruction is made possible when teachers use contextual support such as visuals, hands-on learning, gestures and other non-verbal accompaniments to instruction. Mabbott (2003: 8) concurs that instruction must be multi-modal and must include talking, writing, the use of aides, encourage student discussion and that teachers need to "become actors and act out concepts whenever possible". Now that the relationship between language proficiency and assessment has been explained, it is necessary to first reflect on strategies that have been employed internationally to assist Limited-English-Proficient students and to then relate this knowledge to the context of assessment in Science.

Strategies employed to assist Limited-English- Proficient (LEP) Students

In a bid to address the diversity among students' language proficiencies and capabilities, especially in respect of LEP students, "accommodations were introduced into state assessments. These accommodations were "specially designed with the students' linguistic needs in mind" (Stansfield 2002: 1). In 2000, Abedi *et al.* conducted a study into the use of maths test items from the National Assessment of Educational Progress, where they employed the following four accommodation strategies: simplified English language in the test items; a glossary of nonmath words or phrases; an extra twenty five minutes of time; and,

a glossary plus the extra twenty five minutes of time. They found that the only type of accommodation that benefited the LEP students was the simplified English language strategy. They also found that nonLEP students who were randomly assigned to the different accommodation groups, also benefited from this strategy. The simplified English language strategy entailed modifying the maths word problems for difficult generic vocabulary and sentence structure.

Kiplinger *et al.* (2000) found that the performance of students on a mathematics assessment with high proportions of word problems was directly related to their proficiency in reading in English. In 2001, Abedi *et al.* conducted a study into a National Assessment of Educational Progress reading test to obtain a measure of students' reading proficiency levels. They found a high correlation between high English reading ability and high arithmetic problem-solving ability, highlighting the significance of language ability in assessment results (*see also* Abedi 2001a, 2001b; Abedi *et al.* 1998, 2001). However, Stansfield (2002: 1) cautions that "one accommodation may give an unfair advantage to examinees receiving it, whereas another may not improve the performance of even those who have special needs and should benefit most from it".

Hanson *et al.* (1998: 2) added that "a Plain Language approach to writing or revising test items in subjects like math and science will simultaneously reduce the language demands placed on students and thus, irrelevant score variance attributable to student's reading skills" (*see also* Bernhardt *et al.* 1996). A summary of some of the strategies for plain language editing as suggested by Brown (1999) are as follows: reduce wordiness and remove irrelevant material. Where possible, replace compound and complex sentences with simple ones. Avoid ambiguous words, use words that are commonly used and avoid low frequency words. Avoid multiple names for the same concept and mark all questions with bullets, numbers or other obvious graphic symbols.

Acknowledging that "teaching students to understand content is (and should be) the central focus and ultimate goal of any subject, especially in Science and mathematics" Valdez *et al.* (2004: 5-7) describe four of the major instructional models focusing on conveying content (such as mathematics and science) to LEP students rather than direct instruction in ESL. These include: sheltered instruction, English immersion, Cognitive Academic Language

Learning Approach (CALLA), and content-based. They explain that sheltered instruction aims at enhancing the process of simultaneous acquisition of scientific and mathematical concepts and language, and it is often enriched with audio and visual aids. Harris (1995: 24) adds that sheltered instruction minimizes dependency on language by concentrating on teaching concepts. English immersion, they say, benefits LEP students by providing them with second language proficiency and it develops cultural awareness. CALLA concentrates on the ability to generate and apply language. In comparison to sheltered instruction which 'waters down' the content, CALLA makes challenging content comprehensible (*see also* O'Malley and Chamot 1990). Content-based instruction is grounded in the belief that the learner best acquires knowledge that is meaningful. In other words, the students will only learn that which makes sense in their world.

The LEP students referred to in the above studies form the minority population in the cases studied. In the South African tertiary context, the situation is different from the international intervention of accommodations discussed above, in that the majority of the student population in the present system come from English second language backgrounds, that is, they speak a different mother-tongue at home. Bridging courses, pre-tech certificates, or pre-degree programs are currently offered by tertiary institutions, usually for the duration of one year, by tertiary institutions to assist ESL students to get into the mainstream diploma or degree programmes. In addition, enrichment programmes in English may be attended by students on a voluntary basis. All of these fall outside the ambit of the mainstream programmes.

Given the inequalities and the apartheid background of South Africa, educators are very mindful of treating students differently in class. They do not want to be regarded as discriminatory. Employing accommodations in the South African classroom presently could also lead to confusion in terms of classification of the students into EFL and ESL. Educators cannot decide on the basis of the colour of the students' skin whether they are EFL, ESL or indeed foreign language speakers of English. To add to the dilemma, some institutions, like, for example, the Durban Institute of Technology, have declared a moratorium on testing language proficiency of students before admitting them into a course of study at the institution because it is regarded as discriminatory practice. Accommodations are also not

regarded as the answer to the LEP students' problems by many researchers. Abedi *et al.* 2001, Rivera and Stansfield 2001; Stansfield and Rivera 2001, and Stansfield 2002 have called for further research to verify the impact of accommodations for LEP learners in general. Stansfield and Rivera (2001: 2) found that some accommodations can be problematic, and they said that "access to English dictionaries or native language dictionaries can unfairly advantage LEP students by giving them access to content-related terms". Commenting on the process of linguistic simplification, they argued further (2001: 3) that "at times, language and content interact, and in these cases, it is not possible to linguistically simplify items without simplifying the content".

While the above studies show the advantages of accommodations for LEP students, one must also take heed of the reliability and validity issues pertaining to these assessments. Stansfield (2002: 1) commented that research needs to be conducted to determine "whether accommodations are a threat to a test's reliability and validity, or to score comparability for examinees who receive them and examinees who do not" (*see also* Stansfield and Rivera 2001: 1).

Assessment in Science

Anstrom (1997: 16-17) comments on the fundamental role of language proficiency in Science achievement as follows:

> The acquisition of certain linguistic structures of argumentation is thought to be a prerequisite for the kind of advanced reasoning used in scientific communication. If students do not have access to these linguistic skills, they will not be able to engage in the level of discussion essential to scientific enquiry, and will have difficulty in science reasoning. Certain linguistic structures, such as logical connectors and specialised vocabulary that may have different meanings in a scientific context are problematic for students. Moreover, discourse patterns common to science such as compare/contrast, cause/effect, and problem/solution require a high level of linguistic functioning. Thus, cognitive development in science is heavily dependent upon linguistic development.

This problem of learning Science through a second language is further compounded by being

assessed through the second language. According to Anstrom (1997: 35) all too often, second language students are asked to participate in "tests that make unfair assumptions about their English language proficiency in order to assess their content knowledge". The problem is, that assessment of content becomes confused with assessment of the students' capabilities in English. She adds that teachers must distinguish clearly whether they want to "measure language proficiency or content knowledge" (1997: 35). Once teachers or assessors are clear as to exactly what they want to test or measure, they must ensure that their test instrument is appropriate for that particular purpose. They must not purport to assess content when they are actually assessing the student on the basis of grammatical correctness, appropriacy of expression, competence in choosing the correct words or terminology or the ability to write scientifically. Nutta and Pappamihiel (2004: 3) add that because "traditional types of tests (essays, multiple choice, fill in the blank, etc.) are heavily language dependent", these tests which were supposed to assess knowledge of content, actually become an assessment of the students' proficiency in English where the students have to grapple with the language of the assessment.

Nutta and Pappamihiel (2004: 3) suggest that if the second language students "are having difficulty with sequential vocabulary, they may not be able to write an essay on the water cycle. However, if given the opportunity to do a hands-on type of assessment through experimentation or pictures these same students may be able to demonstrate knowledge of that content, confirming for the science teacher their knowledge of science, not necessarily their limitations of English". They go on to say that it is not equal or fair to the second language students to use the same instructional strategies as with native English speakers since LEP (Limited English Proficiency) learners cannot take equal advantage of these opportunities. Regarding all students in the same way in respect of instruction, and indeed assessment does not mean that students are being treated fairly. We have to acknowledge the diversities in our student population in order to make meaningful contributions to their education.

Forms of Assessment in Science

For varying reasons, assessment in Science has undergone many changes over the years. These assessments take many forms and vary widely among institutions. A survey of South

African tertiary institutions (*Appendix* K) revealed that 82.1% used written tests and 72.6% used written examinations, making them the most popular forms of assessment in Science. Academics also favoured written assignments (59.2%), projects (40.8%) and portfolios (6.5%). Some institutions use oral presentations (27.4%) and a few (10.9%) use oral tests or examinations. Even fewer indicated that they use comprehensive reports (0.5%), laboratory practicals (1%), posters (2%), reflective journals (0.5%), practical tests on the computer (1.5%) and Web CT based tests (2.5%). Analysis of the international survey (*Appendix* L) revealed use of all of the above and included dissertations, mock *vivas*, clinical assessments, learning diaries, self-assessment, and peer assessment. As the number of respondents in the international survey was much smaller than those in the South African survey, the percentages for the former are not indicated here.

Hazel *et al.* (1997: 384) found that "assessment which contributed to student's grades included various forms of continuous assessment (40%) and a final examination (60%) ... mini essays were added to the laboratory examinations". They explain further that "MCQs were added to class tests and the final examinations". Welford (1990: 44-45) outlined different types of practical tasks in Science aimed at: concept acquisition (for example, theoretical problem solving, surveys); developing technological capability (for example, research, refinement of an [innovative] artifact, construction of apparatus); and manipulation of variables (that is, investigation of the 'which' type for example, 'which ball bounces best?'). Lorsbach *et al.* (1992: 316) question the use of multiple-choice, short answer, and fill-in-the-blank items which tend to be incorporated into paper and pencil measures which represent the most frequent method used to assess students' knowledge in Science. It is safe to assume from the above then that written assessments or paper-and-pencil assessments as they are commonly known, seem to be the prevalent mode of assessment in tertiary Science, especially in South Africa.

Written/Paper-and-Pencil Assessments

The tradition of written or paper-and-pencil assessments in South Africa must be viewed against the changing background of education in South Africa. The change from an apartheid system of education to one of democracy has been marked in South Africa by changes in student enrolment at institutions, changes in teaching methodologies and indeed some

changes in assessment practices. But, do these assessments resemble the "lived-in" world of the student? Because of the diversities and discrepancies in social, cultural and educational backgrounds, the tertiary student, especially in South Africa with its tumultuous background, enters the institution with varying abilities and different 'realities'. Collins *et al.* 1993; Lave 1988; McGinn and Roth 1998; and Scribner 1986 regard paper-and-pencil tests as poor indicators for the vast array of knowledges and abilities that comprise human competence.

Lorsbach *et al.* (1992: 316) caution that "conventional paper and pencil tests that are used in situations where technical interests are valued have a potential problem in this regard as students are required to construct meanings without having a chance to explain what they understand as the task, clarify doubts they might have, or obtain further information relating to the task". They blame this on the lack of interaction or collaboration with the educator. Considering the importance of gender and language background of the student in written assessment, Murphy (1993) argued that questions to be asked of the assessment systems are "whether question cues are understood in the same way by all students, whether the task perceived by students matches the assessors' perception, and whether failure on a task reflects a lack of knowledge being tested". If students are not permitted to ask examiners or invigilators (in a written assessment) for clarity, how can the examiner be sure that a student's failure to answer a question was a result of him or her not knowing the content? Ambiguity in the question, cultural misinterpretation of a word or poor expression on the part of the examiner could all contribute to the question being incorrectly answered by the student. In light of the above, let's examine some of the limitations of traditional written only assessments before investing the time and energy necessary to introduce changes in assessment.

Limitations of Written Only Assessments

There are tensions between examinations and the quality and depth of students' learning experience. Though students may do a lot of learning before formal written examinations, their actual experiences of learning in such situations are limited because students simply answer the questions and then move on to prepare for their next exam paper. While during the time leading up to the exams, there may be a significant amount of making sense of what has been learned, the assessment experience itself does little to help students to gain any

further deepening of their knowledge or skills (Race 1999: 62-63; compare Entwistle and Ramsden 1983; Harris and Bell 1989; Ramsden 1988a, 1988b; Ramsden and Entwistle 1981).

"Feedback plays a vital role in learning, yet most systems require exam scripts to be regarded as secret documents, not to be shown to students! - they are therefore lost learning experiences. In order to make assessment more meaningful, it should not be just regarded as a means to generate a mark or a symbol, but assessment should be regarded as a platform for learning - where good quality feedback enables the student to learn from the assessment" (Race 1999: 62-63). Written assessment need not be secretive especially in view of the fact that every script is not moderated. If the students are given back their scripts, they would most likely scrutinize the marking and assigning of marks and point out anomalies to the assessor. As McLay (1996: 112) notes, "some instructors appear to have a morbid fear of challenges to their academic judgement and refuse to discuss grading with the students" but if assessment is done according to specified criteria, the assessor should be able to substantiate why a particular grade was assigned. The importance of assessment as a tool for learning is gathering momentum and one needs to examine how the present methods of assessment contribute to a meaningful learning experience for the student. Darling-Hammond and Falk (1997: 53) ask, "what will students really know and actually be able to do as a consequence of engaging in particular learning activities and demonstrating what they know in particular ways?" (*see also* Darling-Hammond 1994). One needs to examine carefully the depth of the learning experience and the quality of feedback provided to the student.

Marking for feedback is more subtle and takes up a lot of the assessors' time. Written scripts have to marked in the assessors' own time, meaning that one cannot mark during assessments, during teaching time or during staff or committee meetings. First one has to decide what the purpose of feedback is. There are at least three purposes: to relay the grade; to justify the grade; and to help the student to improve his or her knowledge-base/problem-solving strategies/understanding/communication skills (Brown *et al.* 1997: 51; see also Hounsell 1997; Rowntree 1987).

Marking of scripts is very time consuming especially when students' language skills are very poor and the examiner has to struggle to decipher the students' use of language before even

trying to assess the script for content. Subjectivity could jeopardise the student's marks if an essay is fraught with grammatical and other language errors. Scripts have to be marked outside of teaching time, which means that assessors have to mark in their breaks, at home or over holidays and weekends usually without any extra remuneration. When classes are large, this can be a particularly frustrating exercise for assessors with many other responsibilities outside teaching. "The inferences drawn about a student's assignment may vary widely from assessor to assessor, particularly if they are not using explicit criteria or marking schemes" (Brown *et al.* 1997: 8). The emphasis here, is on the word "explicit". As assessors usually mark written scripts at different times of the day and away from each other, the criteria for allocating marks must be very explicit as markers cannot confer on every script. In fact, because of the heavy marking loads, markers seldom ask their peers to re-assess a script they have already marked to check if they have assessed fairly. "Faculty members with different academic backgrounds often have very different scales of marking" (McLay 1996: 111) so markers must be fully aware of the criteria and specific mark allocation for every aspect of the assignment to avoid subjectivity dictating how marks are allocated to a piece of written work. Assessors also have to take care that students are informed of the assessment criteria in advance so that when their scripts are returned to them, they are able to understand how marks were allocated and the final mark calculated. Of course, when scripts are not returned to students (because of institutional policy), they cannot check whether marks have been fairly allocated or not.

Written assessment in groups can be difficult to assess. It is sometimes necessary for students to work in groups in order to teach them team-building and co-operation or in a bid to reduce the marking load especially in a very large class. Care has to be taken in the setting of such a task so that the examiner can assess each members' contribution separately. If one mark is assigned to the project or assignment, this may leave students disgruntled as there may be some members of the team that did not do their share of the work. In an attempt to get a good mark, then, one or two members work really hard to cover up for the others and the good mark is unfairly enjoyed by all.

The written examination does not involve "direct interaction" (Lunz and Stahl 1993: 175) or live "interaction" (Joughin 2000: 2) between the examiner and the candidate. This means that the examiner cannot probe the candidate's thinking further when an interesting or

controversial point is made. Neither can the examiner seek clarity from the candidate when something is unclear or ambiguous. The candidate cannot benefit from the direct or live "interaction" by asking for clarity on questions, instructions or words used by the examiner. Also, if the candidate has misunderstood a question, neither the invigilator nor the examiner will be able to point this out to the student as they are not allowed to assist students while a written examination is in progress. The written examination is private and communication with the invigilator is not allowed. The absence of this "interaction" further disadvantages the candidates in that they are not present when their scripts are being marked. So, if the examiner cannot understand what the student is trying to say, the student may lose marks and possibly fail the paper. Students have to work out the best possible way to put their thoughts on paper so that the examiner will understand their responses. If they do not know how to express an answer in English, they will have to work out an alternate way of expressing their answer or simply write it down in whichever way they can and hope that the examiner will understand what they are trying to say. It does not matter therefore that the student knows the answers or the content, if they cannot express themselves adequately in writing, they could fare badly in the examination especially as they are not allowed to seek assistance or clarification from the invigilator or examiner during the examination. Students who cannot express themselves clearly in writing in English are therefore disadvantaged by written only assessments.

The examiner cannot adjust the level of questioning or restructure questions to suit the different levels of English language proficiency in a class or across classes. The questions have to be posed at a level that would enable all students to comprehend equally well. This is a really mean feat, because the examiner will have to ensure that his or her paper is rigorously checked for ambiguity and understanding by a few moderators at least. It is common practice though that only the designated moderator is allowed to see the examination paper before the exams. Depending on the policies of the institution, the external examiner or moderator in the written exam merely examines borderline cases or examines a select number of scripts as a control or standardization mechanism (*see also* Otto 1993: 13). This means that he or she does not moderate every script and therefore the work of every student. An assessor could mark some scripts either too leniently or too harshly, and if those scripts are not moderated, the discrepancy would go unnoticed and the student would be disadvantaged.

Written papers measure recalled knowledge, familiar problem-solving strategies, recalled understanding, and the capacity to think, structure thoughts, and work quickly and independently under pressure (Brown *et al.* 1997: 14). Students could memorize the content and apply this when answering the questions on the paper. Their responses are not probed further and their thinking cannot be directed by the assessor, for example, if a student is not answering the question as he or she should, but is going off at a tangent, the examiner in the written examination cannot intervene and re-direct the student's thought. The student will therefore go on writing lots of useless information and lose marks for doing so.

"Teaching students the ability to communicate is acknowledged to be a central objective of university education" (Hay 1994: 43), this was supported further by Evans *et al.* 1992: 150) whose students remarked that they "want to discuss scientific ideas and current issues". Being social beings, students are engaged in conversation with fellow students/academics and when they graduate they have to communicate with their peers, fellow professionals and clients or patients on a professional level. Written only assessment does not teach the students discourse in their field and this impacts on the student's social and professional life. Academics and scientists also present their work at conferences for the consumption of other academics and professionals, and as such, they require training in discourse within their particular field of study. They need to be trained to 'talk' Science (*see* Barain and Farnsworth 1997; Barkhuizen 1998; Booth 1985; Bryce and Robertson 1985).

Collusion and copying are difficult to detect. McLay (1996: 114) notes that many courses require the submission of essays which constitute a major part of a course's work and unfortunately there are now many "essay banks" which have catalogues of essays that can be purchased. He cautions further against plagiarism which is also difficult to detect unless examiners are aware of the wide range of commentaries and resource material. Greaney and Kellaghan (1996: 172-173) talk about impersonation where an individual who is not registered as a candidate takes the place of one that is registered. They go on to warn about invigilators who assist candidates by circulating sheets of worked-out answers during the course of an examination, and about the smuggling of crib notes and answers by students in their clothes or information being written on parts of the body.

Having considered some of the limitations of written examinations, one must also examine

the merits of using written assessments as they have been in use for a very long time and is the most popular mode of assessment.

Merits of Written Assessments

Written examinations can be administered to a large group simultaneously, thereby reducing the time spent on examining candidates. They are therefore very cost effective in terms of time. Invigilation or examination time is short, depending on the duration of the paper. The duration of the paper is known to the candidates, and only in very exceptional circumstances where a student arrives late for a legitimate reason (for example, due to a personal accident) will the candidate be given time to write, thereby extending the period of invigilation.

Written assessments are private and not face-to-face assessments in the sense that candidates do not interact with the assessor. This may help to reduce anxiety levels as the student does not have to 'face' the examiner when he or she does not know an answer (*see* Ingham and Gilbert 1992: 39). In the written assessment, the student can simply omit a question if he or she cannot answer. Students also have the opportunity to read through their work and make corrections before submitting their work in for assessment. They can revise their answers many times before submission. Candidates can plan their time as they wish, that is, they can decide how much of time they want to spend on planning, drafts and on answering each question. They can also decide on the order in which they wish to answer the questions. Examiners generally believe that by "giving the same examination under the same testing conditions to students" (Bensoussan and Zeidner 1989: 41), they are being fair in their testing practice, and the scripts serve as a record of work and can be consulted at any time, especially in the event of a query.

Assessments in the South African Context

Given the limitations and merits of written assessments as they are presently used, one must ponder their exclusive relevance in the present South African context. There is absolutely no doubt that written assessments play a very important role in education, but do written only assessments adequately address the needs of a multilingual, multicultural classroom? Surely

it is time to re-examine assessment at tertiary level and to make it more relevant to the South African context.

Teaching, learning and assessment must keep pace with changes firstly in terms of the demographics of the classroom in the post-apartheid South Africa, and secondly, in terms of the rapidly evolving technological age of the 21st century, in order to be meaningful and relevant. Malcolm (1996: 53) agrees, that "just as science teaching needs to acknowledge different dimensions of science, so it needs to acknowledge the many dimensions of students, and the differences between students". He adds that science and technology education must be part of transformation education (2002: 2-3). Adhering to traditional or tried-and-tested forms of written only assessment means that we are not keeping pace with the changes. In order to make meaningful change, we need to address the diversities in our classrooms, and to do this, we need to examine the needs of our students as individuals. Since assessment plays such a pivotal role in the lives of graduates (at whatever level of study), we need to consider our students in their everyday life situations in order to realize the impact that the assessment will have on their lives, so that we may adapt assessment accordingly.

INCORPORATING AN ORAL COMPONENT INTO ASSESSMENT

Students do not necessarily welcome innovative approaches to assessment. However, students generally welcome a form of assessment which to them seems fairer, that is, one which asks them to carry out a reasonable task, perhaps one which relates to the 'real world' and measures what they see as genuine learning:

> It's [assessing] the sort of level of knowledge you're more likely to hang onto long term and actually apply as well ... It's the sort of thing that's more likely to crop up in a conversation in industry (McDowell and Sambell, 1999: 73).

So, if the learning situation imitates their professional or working life, it could make learning more meaningful for the students. "Many educators have come to recognise that alternative assessments are an important means of gaining a dynamic picture of students' academic and linguistic development (Tannenbaum 2004: 1). She adds that alternative assessments are particularly useful with English as a second language students because it employs strategies that ask students to show what they can do. Huerta-Macias (1995: 9) concurs that "students are evaluated on what they integrate and produce rather than on what they are able to recall

and reproduce" and that the main goal of alternative assessments is to "gather evidence about how students are approaching, processing, and completing real-life tasks in a particular domain" (1995: 9). This study is advocating the use of an alternative assessment strategy to be used in conjunction with the present written mode of assessment. Tannenbaum (2004: 1) explains that alternative assessments generally meet the following criteria: focus is on documenting individual student growth over time, rather than comparing students with one another; emphasis is on students' strengths (what they know), rather than weaknesses (what they don't know); and consideration is given to the learning styles, language proficiencies, cultural and educational backgrounds, and grade levels of students.

In their examination of the Curriculum 2005 documents for schools, Prinsloo and Janks (2002: 33-34) said, "it is clear that the Revised Curriculum uses the modalities of orality and literacy as the organising structure for the curriculum, with a focus on the oral/aural skills of speaking and listening and the literacy skills of reading, writing and viewing". The following learning outcomes from the Department of Education (2002: 56) document under the learning area 'Languages' indicates this focus on the oral/aural skills:
Learning Outcome 1: Listening – the learner will be able to listen for information and enjoyment, and respond critically in a wide range of situations.
Learning Outcome 2: Speaking – the learner will be able to communicate confidently and effectively in a spoken language in a wide range of situations.
Learning Outcome 3: Reading and viewing – the learner will be able to read and view for information and enjoyment and respond critically to the affective, cultural and emotional values in texts.
Learning Outcome 4: Writing - the learner will be able to write different kinds of factual and imaginative texts for a wide range of purposes.
Learning Outcome 5: Thinking and reasoning – the learner will be able to use language to think and reason and access, process and use information for learning.
Learning Outcome 6: Language Structure and use – the learner will be able to use the sounds, words and the grammar of a language to create and interpret texts.

Taking all of the above discussions into account and the fact that everyday practice requires one to engage in verbal or oral as well as written discourse, I opted to include oral assessment into the present written-only scenario so that learners could be trained to function within the

real world or as Lave (1988) and Lave and Wenger (1999) suggest, to move from "legitimate peripheral participation" to "full participation" in the community of discourse. Lave and Wenger (1999: 122) add that this move is "motivated by its location in a field of mature practice".

A further impetus for opting for oral assessments was to assist the students with comprehension, understanding and expression especially within the second language environment. The South African classroom especially at tertiary level, is made up of students from different language, educational, cultural, social, historical, socio-economic and demographic backgrounds. A typical classroom will have students who speak different languages or mother-tongues working within the same curriculum and using the same medium of instruction. The question to be asked is, does our assessment system reflect the multicultural diversity of our student population? Gibbs *et al.* (1988: 93) maintain that there are some students who do poorly in written tests but who have good oral skills and may display their knowledge better in *vivas*. This is certainly true for many people from oral cultures and, if we are truly committed to providing multi-cultural education, "we should be assessing students in ways which are culturally fair" (Grant 1996: 14).

Our present assessment system requires students to be able to read and write well in English. After all, all our lectures are delivered in English; student notes and textbooks are in English and the assessments are in English, predominantly in the mode of writing. This means then, that if students are not competent in writing in English, they may not fare well in class or in the assessments. Deale (1975: 79) adds that oral assessments may be particularly valuable with mixed-ability groups, where some pupils' deficiencies in skills of reading and writing may invalidate the usual methods of testing. Especially in the South African context with the legacy of apartheid, separate education systems, different standards of education and English as the popular medium of instruction at secondary and tertiary level, it is imperative that educators and legislators alike look at more flexible methods of assessment. Rennie and Parker (1991: 58) concluded from their study that a variety of forms of written and oral communication are required to enable students to demonstrate their knowledge of subject matter and problem solving abilities (*see also* Chansarkar and Raut-Roy 1987: 121).
In their comparison of oral and written assessments, Lorsbach *et al.* (1992: 316) agreed that "the advantage afforded by oral assessments is that the teacher and student can negotiate

meaning and arrive at consensus" by collaboration and interaction. Greene (1989: 144) agrees that "when we are conversing in a language we know well, we seem to be speaking our thoughts directly, presenting the contents of our arguments rather than making linguistic decisions" adding that "the purpose of talking is to say what we mean. Yet, this natural 'transparency' of language can be all too easily shattered when we attempt to express our complex thoughts on paper". My study takes the ESL and the EFL student' s backgrounds into account and is very mindful of the fact that in oral communication, one can draw on both the verbal and non-verbal cues of the speaker and listener. Granted that written communication can also involve non-verbal and even not-written cues, for example, the presentation of a text (typed, printed, handwritten; the care taken by the author - spelling; preparedness; punctuality, etc.), but the role of non-verbal communication in written communication, is not immediate, in that, the sender and the receiver of the message may not interact immediately.

Non-verbal cues (for example: facial expressions, eye-movement, gestures, paralinguistics, etc.) and prompts in oral communication assist greatly in making communication easier and more successful. Thus the student is assisted in the process of communication and can seek clarity or guidance from the assessor/s and *vice versa.* In the written assessment, the student has to understand the question purely from the written instruction. But in the oral assessment, verbal and non-verbal cues assist the student, and as Vygotsky (van der Veer and Valsiner 1991: 217) pointed to the importance of tools and aids in human learning: the use of external supports is a key element in the development functions in oral assessment. This is further supported by developmental psychologist Bruner who sees learners as thinkers and constructors of their own understandings of the reality around them. He explains this as "intersubjectivity or the human ability to understand the minds of others, whether through language, gesture, or other means. It is not just words that make this possible, but our capacity to grasp the role of the settings in which words, acts, and gestures occur. We are the intersubjective species *par excellence*. It is this that permits us to negotiate meanings when words go astray" (Bruner 1996: 20). Face-to-face communication therefore gives us the added advantage of communicating with gestures, posture, facial expression and sign language. When we cannot find the appropriate words to make meaning clear, we can always rely on non-verbal communication.

Also, the "setting" or context gives communication a particular meaning. The student can get immediate feedback from the non-verbals of the assessor and adjust his/her communication appropriately or the student can use non-verbals to express a thought if she or he cannot find the appropriate words. The written mode allows us to communicate our thoughts, ideas and knowledge on a different level. Written communication may be formal or informal and is sometimes the only appropriate means or mode of communication, (eg. a medical note or prescription from a doctor or the writing of an article in a journal). Gardner echoes the thought that written communication poses different challenges to the student than does oral communication.

While oral and written forms of language doubtless draw on some of the same capacities, specific additional skills are needed to express oneself appropriately in writing. The individual must learn to supply that context in spoken communication is evident from nonlinguistic sources (like gestures, tone of voice, and the surrounding situations); one must be able to indicate through words alone just what point one wishes to make (Gardner 1993: 95). Vygotsky describes written speech as "a separate linguistic function, differing from oral speech in both structure and mode of functioning" (Vygotsky 1962: 98). In oral speech every sentence is prompted by an immediate, obvious motive, and ordinarily takes place in a context that supplies a number of external clues to the speaker's intended meaning (ie. facial expression, common social background, life patterns, geography, etc.), (except, incidentally, when talking to someone on the telephone).

In the written monologue "the motives are more abstract, more intellectualized, further removed from immediate needs" (Vygotsky 1962: 99) and the communication depends on the writer's awareness of what is shared with the intended audience and must be explained. Thus, to write well, a social as well as a linguistic analysis is necessary; "one must master linguistic forms and understand the relation of one's own perspective to others" (Finlay and Faith 1987: 64). This is further expounded by Elasser and John-Steiner (1987: 48) who said that, in written communication, "the writer lacks the immediate clues of audience response - facial expressions, sounds, pitch and intonation - all of which are characteristic of oral dialogue". This then, is the crux of the problem for me, as far as written only assessments is concerned. After all, we should be testing the students' understanding of the content, so, the comprehension of the question should not be made a hurdle for the student. We should be

interested in students' knowledge of their subject or content, and their ability to apply that knowledge in real life and not in how well students can express themselves in the language of the assessment. Yes, students must be able to put their points or thoughts across in English, but their presentation skills in English should not be the focus of the assessment as this will definitely disadvantage the ESL student. Rennie and Parker (1991: 56) agreed that "assessment procedures are invalid if they fail to elicit knowledge from the students who in fact possess the knowledge". Students should not be prevented from demonstrating their knowledge of the content simply because of their weakness firstly in the language of assessment and secondly, in the mode of assessment.

Our purpose with assessments should not be to trap the students within the confines of a second or foreign language by posing complexly worded questions or questions that do not state clearly what is expected of the candidate, but to assess knowledge of the subject. The language of the questions should not be the challenge for the student, that is, the question must be structured in a way that all students (EFL and ESL) would be able to understand the question and work out what is required of them. Otherwise the assessment will result in "science examination grades which reflect ability in English rather than the scientific competence or knowledge under direct test" (Bird and Welford 1995: 397; *see also* Murphy 1988).

Scientists rely on language for communicating their findings to others and the focus falls not on the language *per se* but rather on the communication of ideas. As I stated earlier, this study is not concerned with the presentation skills, in other words, how well the students express themselves, their ability to speak English very well, how succinctly they are able to formulate their answers in English or in how quickly they are able to grasp meaning as intended by the examiner, but is rather concerned with the student's knowledge, understanding, and thinking processes in a particular context. The focus is on competence and the ability to apply one's knowledge. Particularly in the South African context, where language poses a major hurdle in education at all levels, we need to address this problem at the point where it really makes a difference in the academic life of the student - in assessment, because it is the assessments that determine whether a student passes a subject or graduates to the next level or not.

A discussion of Gordon Joughin's six dimensions of oral assessment (Joughin 2000: 1-3), namely: content, interaction, authenticity, structure, assessors and orality, explains further why I decided to use oral assessments.

Content: Some educators argue that oral assessments are only useful for testing proficiency or competence in a language or for examining presentation skills. But, Joughin (2000: 1) found that in oral assessment literature, there was surprising agreement regarding what can appropriately be tested by oral assessment, *viz*: knowledge and understanding; applied problem solving ability; interpersonal competence and personal qualities. "Recall', "comprehension of the underlying meaning", "the ability to think on one's feet", "professional approach to the conduct of one's work" and "suitability to enter a particular profession" can definitely be tested by oral assessment.

Interaction: A difference between oral and written assessment is in the interaction that oral assessment provides. *Interaction* (Joughin 2000:2) refers to reciprocity between examiner and candidate, with each acting on, responding to, and being influenced by the other. Biggerstaff 1992; Black 1990; Butler and Wiseman 1993; Deale 1975; Elasser and John-Steiner 1987; Grant 1996; Joughin 2000; Otto 1993; Saville and Hargreaves 1999; Vygotsky 1978; and Wakeford *et al.* 1995 bear testimony to the fact that a definite advantage of oral assessments is that it allows for flexibility and interaction between candidates and examiners, something which is absent in the written exam format. This complex set of interactions between examiner and student allows the examiner to probe a student's understanding of the content. This is very valuable as it steers students away from rote learning. They cannot just memorize chunks of material and regurgitate it in the test. Students anticipate that their thinking will be probed and therefore have to adapt their mode of study. The live interaction or conversation between the examiner and student may lead to the examiner asking a follow-up question that the student did not expect.

In the written examination, the student's essay or answer follows a path mapped out by the student. In essence, this means that the student can memorize content and simply regurgitate it on the script. But, in the oral examination, the student's response or inability to answer may prompt the examiner to ask a question which steers the student away from the planned answer. The student therefore has to understand the content being tested in the oral, whereas memorization (without actual understanding) may suffice for the written examination. Of

course, the merits or limitations of any examination (be they oral or written) depend very much on the quality of the questions that are asked and the criteria that are used to judge the quality of the students' answers.

In my experience both as teacher and lecturer, I found that when students do not understand a section, they simply rote learn. Superville's study (2001: 123) found that because of their poor writing skills, students "were unable to transfer their thoughts to paper. When answering exam questions, they were unable to discriminate in their use of learned material, writing down everything about a topic and not focusing their response on the question" (*see also* Kahn and Rollnick 1993). Oral assessments may encourage students to learn differently, for example, by joining study groups so that content can be interrogated; by reading extensively so as to broaden understanding and general knowledge; by reading for understanding and not just memorising whole essays and forcing the learned essay to fit as an answer to at least one question on the written exam paper. It is accepted that reading benefits language development and by promoting reading, the oral assessments are also promoting language development (*see also* Langer 1987: 4; Boas 1965: 20).

The interaction may therefore provide the student with a sound and critical knowledge of the content which she or he is able to apply in "real life" situations. After all, in the workplace, patients or clients will not only ask the graduate questions that she or he has memorized, but will ask questions pertinent to their situations and the graduate will have to answer appropriately. Unlike in written assessments, where the student's script is marked and returned (with or without comments), and interaction (if any) occurs only on the initiative of either the student or the examiner - in oral assessment, by its very nature, interaction is a very necessary part of the assessment. This interaction also affords the student the opportunity to seek clarity from the examiner or *vice-versa*.

It is generally recognised that assessment is one of the powerful extrinsic factors affecting learning, and it is also a form of learning itself (Macdonald *et al.* 1999: 346). Assessment plays a critical role in learning. In the oral assessments, students can learn from the examiners' feedback and from their peers' interaction with the examiners. Therefore, in the oral assessment sessions that I am proposing, students are allowed to sit-in on sessions so that they can learn both from their peers and the examiners. This is also the practice overseas,

particularly in the institutions that I have surveyed as part of my study - where the public exam system allows students to sit in on the oral exam sessions. This serves two purposes: firstly, it promotes student learning and secondly, the 'audience' serves as witness to the assessment process to ensure transparency or fair play.

Even though lecturers may stress certain concepts or theories in class, "students take their cues from what is assessed rather than from what lecturers assert is important. Put rather strictly: if you want to change student learning then change the methods of assessment" (Brown *et al.* 1997: 7; *see also* Norton *et al.* 2001; Boud 1995; Logan and Hazel 1999). A possible "side-effect" of the oral assessment, may be to spur the student on to study much harder so that they create a good impression in person. James (1999: 4) found that oral practice examinations (OPE) can facilitate education by stimulating residents to read, ask questions, and seek broad clinical experience. Residents and junior faculty preparing for the oral examination of the American Board of Anesthesiology find it stressful to be examined by individuals with whom they currently associate, hence the added motivation to study to avoid embarrassment. "Daarom behoort 'n mondelinge eksamen nie net as 'n vorm van toetsing beskou te word nie, maar as 'n nuttige deel van die totale onderrig- en opvoedingsproses. Dit leer 'n student om op sy voete te dink, dit bied aan die eksaminator die geleentheid om verbande tussen die verskillende dele van die leerstof te trek en die student uit die vuis uit daaroor te toets en les bes, bied dit die geleentheid tot tweegesprek wat by die skriftelike eksamens afwesig is" [Therefore an oral ought not to be regarded as just a form of testing, but as a necessary part of the total teaching and education process. It teaches a student to think on his feet, it affords the examiner an opportunity to pull together different aspects of the syllabus and to test the student on this, and moreover it presents an opportunity for interaction which is absent in written exams] (Otto 1993: 10).

This interaction is supported by Lev Vygotsky's zone of proximal development which is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky 1978: 86-87). In oral assessment, this "adult guidance" is provided by the assessor, who provides verbal and non-verbal cues to the student. The student and the assessor seek clarity from each other so that the language does not prove to be a barrier in the assessing context. In a group

assessment situation, this collaboration occurs with the peers they are being assessed with as well as with the assessor.

In a study conducted by Butler and Wiseman (1993: 340) in the Faculty of Law at the Queensland University of Technology, the main advantages of the *viva* were identified as: giving students an opportunity to improve their confidence and ability in expressing themselves verbally, developing their ability to "think on their feet" and "giving them the chance to gain an in-depth knowledge and understanding of a certain area of the law". Some typical responses from students were: "being able to say more than the information I give when I write", "the ability to clarify a point should it be requested - something that cannot be done in an exam/assignment, when I may well have the knowledge", and "it gives you confidence in speaking to others about an area of the law which you don't have many opportunities to do". The interaction and guidance in oral assessment assists the student to overcome this language hurdle as the student can seek clarity and direction from the assessors without disadvantaging themselves or their peers. In the written assessment, the students first have to understand the question correctly (on their own) and then work out what is expected of them or what the question requires before going on to answer. This could prove to be disastrous for an ESL student or any student for that matter, who misinterprets the questions because of the way in which the question was worded or because they do not understand the meaning of words or expressions in the question.

Authenticity: One must bear in mind that real or everyday life involves both oral and written communication and oral interviews and role-playing where real life situations are simulated, in the teaching and testing of foreign languages is gathering momentum, *see* Jarausch (1991); Blue *et al.* (1984) and Dykstra-Pruim (1997). *Authenticity* refers to the extent to which the assessment replicates the context of professional practice or 'real life'. In professional practice, one has to communicate, both orally and in writing, with colleagues, clients/patients/customers, employers and other professionals (*see also* McDowell and Sambell 1999; Levine 1997). Oral assessment therefore affords the student the opportunity to communicate their thoughts, knowledge and understanding in a situation that replicates real life. As Otto (1993: 10) agrees, "dit plaas hom in 'n meer realistiese lewensituasie as die skriftelkie eksamen" [it places him in a more realistic life-situation than the written exam]. Being examined in the oral and written modes may more closely approximate what the

graduate will experience in professional practice or real life.
Structure: Oral assessments are perceived by some as discussions with no particular format or structure. Joughin maintains that assessment is based on a predetermined, organised body of questions or sequence of events. All questions cannot be predetermined at the outset, but it is crucial that there is a solid *structure* that can be replicated for all students while probing and prompting is determined by the sequence of events.

The format of the oral assessments in a study by Saville and Hargreaves in 1999 came closest to the format being proposed in my study. One of the key features of the University of Cambridge Local Examinations Syndicate (UCLES) EFL examinations has been a focus on the assessment of speaking by means of a face-to-face speaking test as an obligatory component of the examinations (Saville and Hargreaves 1999: 42). This examination uses a paired format, based on two candidates and two oral examiners. Of the two oral examiners, one acts as interlocutor, and his or her most important role is to manage the discourse; the other acts as assessor, and is not involved in the interaction (Saville and Hargreaves 1999: 43). Foot took a critical look at paired tests of spoken languages and questioned the abandonment of one-to-one tests, he argued that testing in twos appears to be based on the assumption, or hope, that the candidates will share the same first language. "If they do not, then, as every EFL teacher knows, the result can come close to mutual incomprehensibility" (Foot 1999: 37). My study uses paired examiners but with one student being assessed at a time (in the individual oral assessments conducted in rounds one and two) because of the multicultural and multilingual make-up of classes in South Africa, and I did not want to present the candidates with any alienating cultural divides in the assessment situation. The students were therefore asked to choose or decide on the other students that would be present during their assessment. Due to the sensitivity to culture and language (*see* Maharaj 1995: 190-213), students were also given the option of going into the assessment with just one peer. Students were cautioned though, that if they chose not to have other students present at all, that they were compromising the transparency of the process.

Assessors judge the worth of the student's responses. Oral assessment lends itself to assessment by multiple examiners, including faculty-based panels, or, if the assessment is held in a class setting, by peers. This makes oral assessment relatively public and also transparent. All the assessments in my study, were assessed by an examiner and a

co-examiner. The co-examiner also served the role of moderator. As Otto (1993: 13) says, "die fisiese teenwoordigheid van 'n tweede of eksterne eksaminator beklemtoon 'n verdere voordeel van mondelinge eksamens. By skriftelike eksamens is die taak van die eksterne eksaminator (afhangende van die voorskrifte van die betrokke instelling) meestal om net 'n kontroletoets te doen of grensgevale na te gaan. In die geval van die mondeling beoordeel hy egter elke kandidaat. Dit ondervang in 'n groot mate die argument van subjektiwiteit" [the physical presence of a second or external examiner emphasizes a further advantage of oral exams. With written exams, it is the responsibility of the external examiner (depending on the prescriptions of the involved institution) mostly to do a control test or to go over the borderline cases. In the case of the oral, he actually judges every candidate. This challenges, to a great extent, the argument of subjectivity]. This is echoed by Saville and Hargreaves (1999: 44), who said that this adds to the fairness of the assessment, and helps to make candidates feel reassured that their mark does not just depend on one person.

Orality refers to the extent to which the assessment is conducted orally, ranging from the exclusively oral format or to assessment in which the oral component is secondary to another component, for example, the oral presentation of a written paper. In my study, the oral assessment is complementary to the written assessment. In some professions, graduates will need better oral skills, in others, better written skills would be needed, and in others still, both oral and written skills may be of equal importance. It is for this reason that my study initially advocated a 50/50 split in oral and written assessment marks so that individuals may be trained for any possible combination of oral/written skills that may be required in their profession or in the working environment. Industry will probably also welcome the fact that graduates are being trained to communicate in their fields or professions both orally and in writing, and not one to the exclusion of the other.

Oral assessment may take different forms, for example, oral presentations of written work; *vivas* or *vive-voce* examinations; mock trials; poster presentations; interviews; simulations; question-answer sessions; practicals and many more. These assessments may be conducted individually or in groups. The number of examiners at an oral session is dictated by the nature of the subject, policy of the institution, the staff or faculty and other contributing factors. Oral assessment is embedded in education for a number of professions, most notably medicine with its clinical assessment, law with its mooting or mock trials, and architecture

with its 'design juries'. In other discipline areas, oral assessment is less common, often being considered as a form of 'alternative assessment' (Joughin 1998: 367). The structure of these assessments differ dramatically from one discipline to another to suit particular professional requirements.

Merits and De-merits of Using Oral Assessments

Wakeford, *et al.* (1995) agree that oral assessments have held an important place in medicine for centuries and that tradition aside, it is used for flexibility, its apparent fidelity (much medicine concerns oral encounters over issues of diagnosis and management), and its potential for testing higher order cognitive skills. These benefits of flexibility and testing higher order cognitive skills through oral exams are echoed by Boe 1995; Butler and Wiseman 1993; Deale 1975; Gibbs *et al.* 1988; Joughin 1998; and Otto 1993. It is important to note a basic distinction between two different kinds of qualities that can be measured by oral assessment, namely: the student's command of the oral medium itself, ie. the student's oral skills of communication in general or language skills in particular; and the student's command of content as demonstrated through the oral medium (Joughin 1998: 367). My study focuses on the latter quality and attempts to provide students with opportunities in writing and orally to demonstrate their knowledge and understanding of the content.

Rowland-Morin *et al.* (1991: 71) felt that "regardless of the content of a student's answers during an oral examination, he or she will receive a higher score for speaking clearly and maintaining direct eye contact than for hesitating and not maintaining eye contact". My study is in contrast to the study by Rowland-Morin *et al.* as it does not emphasize how well a student can comprehend a question or articulate an answer (*further discussion in Chapter 4).* Of course, Rowland-Morin *et al's* statement, especially regarding 'eye contact' cannot apply in the South African context, as 'maintaining eye contact' is problematic among some cultures in South Africa, where the lowering of one's gaze is a sign of respect to the elders. This does not mean that students should be given higher or lower marks or different assessments because of cultural practices. It simply means that educators need to be aware of common practices and cultural practices and that they need to be mindful, sensitive and sometimes even tolerant of these cultural behaviours. The diversity of cultures in South Africa and more specifically in the multicultural and multilingual classrooms proves to be a

real challenge for educators and assessors, but because of the interactive nature of the oral assessments, assessors could learn about students' cultural practices. Again, because knowledge of the content is being tested, cultural nuances and practices should not have any bearing on the marks allocated for the students' knowledge of content.

Poor interrater reliability is a common objection to the use of oral examinations (*see* Burchard *et al.* 1995; Evans *et al.* 1966; Marshall and Ludbrook 1972; and Thomas *et al.* 1992) who believed that scoring differs greatly between assessors. Hill *et al.* (1986: 5) said that the written exam provides many opportunities for checks in determining and maintaining its reliability and validity whereas the oral exam requires careful training of examiners and the development of reliable rating scales in order to establish and maintain a reliable and valid test. Esmail and May (2000: 375); Grant (1996: 15); and Thomas *et al.* (1992: 438) agree that when using the oral exam as an assessment tool, examiners must be adequately trained, as examiners need to be aware of the ways in which the complex interactions involved in oral exams can affect the performance of candidates. The use of a detailed assessment grid and the training of assessors in conducting and scoring oral assessments was undertaken in my study in a bid to reduce subjectivity between examiners as I argue in *Chapter 4*.

Cost, in terms of resourcing issues, and time, is a common criticism levelled against oral assessment (*see* Biggerstaff 1992; Blue *et al.* 1984; Hill *et al.* 1986; Ingham and Gilbert 1992), but as Holland (2001: 8-9) rightly points out, "the costs involved would need to be balanced against the desirability of diversity". In order to cater for our diverse student population and their academic, social, economic, political, and language backgrounds, institutions of higher learning need to embrace meaningful change in assessment. This means that the institutions may have to make the necessary adjustments so that 'fair' assessment of all students, be they EFL or ESL students, can take place. As Cummings (1990: 99) says, systems of evaluation have to be judged "in terms of their political and cultural compatibility". South African tertiary institutions have to make changes to accommodate the change in the student population, that is, the evaluation systems have to cater for all our students.

Of course, one possible solution would be to assess students in their mother-tongue. But, in

the South African context, this is not as viable a solution as it sounds, for the following reasons: students come from different language backgrounds and therefore speak different mother-tongues; the educators' language may differ from the students' languages in the class; students come from different educational backgrounds and may therefore not have sufficient exposure to their mother-tongue in education, for example, isiZulu mother-tongue students who attended a private or ex-Model C school whose medium of instruction is English; and some students may have no formal exposure to the indigenous languages of our country.

In a bid to encompass all the different language groups and educational backgrounds in one classroom, it makes sense for the moment (until a really viable method of mother-tongue instruction can be found) to opt for English as the medium of instruction and testing so that a 'common' language can be used for all. Students and educators would definitely have had some exposure to English either at school level, in industry or through the media.

SUMMARY

Working within a paradigm of situated learning within a social constructivist framework acknowledged that knowledge is constructed within a community of practice and that a learner may progress from legitimate peripheral participation to full participation within a social world. Social constructivism views learning within a collaborative setting. Assessment should mirror classroom and indeed everyday practice which requires that individuals are actively involved in constructing meaning. Oral assessments by their very nature encourage active participation of the learner, and the inherent strength of oral assessments lies within its collaborative setting, where collaboration occurs with the educator/s and with peers. Oral assessments encourage discourse and situates assessment within the reality of the learner.

Communication in writing demands skills and processes that differ greatly from those that are required in oral communication. In written assessment, if a student does not understand the questions or an instruction, he or she could fail. In oral communication, on the other hand, one can measure how much information one should provide and whether one is answering the question fully or not, by the verbal and non-verbal feedback that one receives. As Grant (1996: 14) points out, "oral assessment provides the assessor with a richer impression of the capabilities and understanding of the person assessed. Issues can be picked up and explored

in ways which are normally not possible in written assessment. Oral assessment enables direct interaction in which more information can be obtained. It is also easier to check out one's interpretation of that information, which in turn leads to a more accurate assessment".

By combining the marks obtained by a student for both the oral and written modes (termed 'mixed-mode') it was hoped that a more comprehensive view of the student's capabilities in a subject could be gained. This study was based on the assumption that while written and oral assessments separately are not in themselves necessarily better or worse than each other as they may very well have different assessment functions, a combination of the two, that is, a mixed-mode of assessment could be of advantage to both ESL and EFL students. This is in contrast to "test accommodations" which Stansfield and Rivera (2001: 2) describe as "eliminating irrelevant obstacles that affect test performance and test scores", but they also emphasize that "accommodations should not give a demonstrable advantage to students who receive them over students who do not". It was envisaged that mixed-mode assessments would allow those students who are weak in the written mode an opportunity to demonstrate their knowledge in the oral mode and *vice versa* because the written assessments which are more private where the oral assessments are more interactive nature and allows for dialogue. The following chapter details the methodology used in this study.

CHAPTER THREE
SURVEY OF ASSESSMENT PRACTICES: BACKGROUND

INTRODUCTION

During the course of my inquiry into assessment practices, I read and reviewed much literature in this field, but found that they did not provide me with sufficient information on which to base or model the assessments in my study. Before embarking on a method of assessment for tertiary Science in South Africa, it was necessary to conduct a survey of tertiary institutions both in South Africa and internationally. The purpose of this survey was to determine assessment practices and indeed assessor perspectives both locally and abroad. In this chapter, I discuss the instruments used to conduct the surveys. Analyses of the surveys are then presented separately and in detail for the South African and international institutions.

I had no choice but to use the questionnaires to gather biographical information and data about assessments both locally and abroad as it was not financially viable to visit either the overseas institutions or all the local tertiary institutions in South Africa. Logistically it was also easier to post the questionnaires so that the respondents could answer them in their own time. The questionnaires were used to gather biographical and grouped data including assessment trends in tertiary Science. The international and South African surveys or questionnaires informed my study of current assessment practice, the purpose of which was to help me to design an instrument suited to test content in Science orally at tertiary level.

International Survey (Appendix L)

My participation in a conference in Helsinki, Finland in 2000 confirmed that some institutions abroad have been using oral assessments (in different forms) for many years. I wanted to find out exactly why, how and with what measure of success, oral assessments were being used. A questionnaire survey of international institutions was therefore conducted with the purpose of determining current practice in oral assessment.

I initiated contact with academics overseas *via* e-mail using primarily the addresses I gained at the Innovations 2000 Conference in Helsinki. Through referrals, I wrote to other academics and thus managed to get an idea of some of the practices in assessment. I wrote to fifty-five academics who were based at different institutions in Denmark, Finland, France, Italy, Mexico, Norway, the Netherlands, Poland, Sweden, Switzerland, the UK and the USA. After many months of correspondence it became apparent that largely the institutions in Europe, and especially in Science were using oral assessments (in different forms and formats) with great success. I then e-mailed and posted questionnaires to the institutions that indicated some knowledge or involvement with oral assessment. I tried in vain to correspond with some of the major libraries in Italy, Sweden, Switzerland and Finland - perhaps the fact that I wrote in English contributed to the nil return.

A covering letter served as an explanation of the aims of the research to the recipient. Participants were assured that their responses would be treated in strict confidence thereby encouraging candid responses. Questions were asked in the following order: biographical details; present assessment practice; oral assessment; written assessment; combination of oral and written assessments; details regarding the oral assessments and feelings/attitudes. Much detail was sought regarding the actual practice of oral assessments. Admittedly the questionnaire was very long and since the responses required were largely open-ended, it required a lot of time and patience from the respondents. This would probably account for the low return rate of nine questionnaires as well. I have to emphasize though, that the questions were absolutely necessary for me to get a full picture of international practice in oral assessment. I also needed to gather all the information in the form of a questionnaire survey (due to financial constraints) in order to draw parallels and comparisons especially since I could not make observations myself or talk to them in person. The open-ended questions were also necessary, because I needed to know exactly what each institution or academic was doing regarding assessment and I did not want to pre-empt or direct their answers, I wanted them to explain exactly what they were doing at their institutions- earlier correspondence had suggested that people approached assessment very differently.

There were definite drawbacks to using this questionnaire, as I could not *talk* to the participants, firstly, to get clarity on their responses on the questionnaire. Most of the respondents spoke English only as a second or foreign language and this affected their

understanding of the questions asked. It also posed a lot of problems as I sometimes could not decipher what they were trying to say. I had to therefore rely on e-mail correspondence to get further clarity. This also became awkward after a while, because even if I did not understand them (after the e-mail enquiry), I could not ask them to 'substantiate' or 'explain' their responses a few times over. Secondly, I could not get information on questions omitted on the questionnaire - again this could simply have been a case of misunderstanding or misinterpretation, but I could not ask them to answer questions they had omitted on the questionnaire. This was especially the case in the questions relating to reliability and validity measures for the oral assessments.

Out of thirty e-mailed questionnaires, twelve were returned, out of which only nine provided me with information pertaining to the practice and use of oral assessments. I did try to get the remainder of the questionnaires, but due to financial constraints, I could not survey these institutions again. Correspondence *via* e-mail revealed a possible reason for the poor return. Some of the respondents said that "*there was too much of information to read and understand in English*" while others said that they were "*not comfortable with writing in English*". This definitely lent support to my reason for embarking on the research into oral assessment in the first place and served as further impetus for my study.

South African Survey (Appendix K)

A questionnaire survey was conducted with all the state funded higher education institutions (including colleges, technikons and universities) in South Africa. Three hundred questionnaires were posted to the Deans of Science at each institution for distribution to their academic staff in the various departments. Each Dean effectively received ten questionnaires and ten self addressed stamped envelopes for dissemination. Each questionnaire contained a covering letter outlining the aims of the research and promising anonymity to the respondent. This questionnaire sought to gather information regarding assessment practices in Science at tertiary level in South Africa and questions were therefore asked in the following order: biographical data; current assessment practice; oral assessment; oral plus written assessment and mixed-mode assessment. The open-ended questions were very necessary to allow for individual responses without forcing the respondents to lump their answer into a predetermined category.

Where questionnaires were slow in being returned, I followed these up with telephone calls. Two hundred and one unspoilt questionnaires were received. The population was made up of one hundred and fourteen males and eighty five females, with two not indicating their sex. Lecturing experience of the respondents ranged from 0 to 5 years to more than 15 years. A wide spectrum of subjects were also covered (*Appendices A, B and C*).

Again, the problem with using the questionnaire method of survey as opposed to the interview method meant that I could not ask respondents to elaborate on their response or assist them when they experienced problems either with the language or my expression. Not being physically present when they were responding to the questions therefore meant that I could not discern whether the problems lay with interpretation or comprehension of the questions because of language constraints or because I had not expressed myself clearly. Also, when respondents did not answer a question or elaborate on their response, I could not determine whether they were experiencing problems in expressing themselves in English or whether they just did not care to do so. These dilemmas probably echo the thoughts which go through an assessors mind when assessing a written piece of work. Both the questionnaire surveys then seemed to support my underlying reasons for conducting the research.

ANALYSIS OF INTERNATIONAL SURVEY QUESTIONNAIRE

Questionnaires received from the institutions abroad (*Table 1- overleaf*) provided me with information regarding oral assessment practice in some international higher education institutions in Science. This table only presents the institutions from which the questionnaires were analysed. Information pertaining to those institutions who did fill in questionnaires, but did not provide information on oral assessments are not presented here.

Forms of assessment used by the various institutions are indicated in *Table 2* (*on page 77*). The percentages in *Table 2* show clearly that oral assessments *are* used albeit in different forms, that is: oral tests/examinations, clinical assessments, mock *vivas* and oral presentations for the assessment of Science at tertiary level. Written assessments are also widely used.

Table1: International Institutions Surveyed

Institution	**Faculty**	**Department**
Maastricht University, The Netherlands	Health Sciences	Educational Development
ITESM-CEM, Campus Estado de Mexico, Mexico	Social Sciences	Communication
Malmo University, Sweden	Odontology	Oral Health Sciences
Centre for Science Education, Scotland	Education	Centre for Science Education
Eotvos University, Hungary	Sciences	General and Inorganic Chemistry
Swedish University of Agricultural Science	Agriculture, Horticulture and Landscaping	Food Science
Tampere University of Technology, Finland	Technology	Data Network and Software Systems
University of Oslo, Norway	Education	Institute for Educational Research
Bologna University, Italy	Industrial Chemistry	Organic Chemistry

Table 2: Forms of Assessment used

Form of assessment used	**Percent usage**
written tests	55.6
assignments	77.8
projects	55.6
portfolios	33.3
oral presentations	33.3
oral tests/examinations	55.6
clinical assessments	25.0
learning diaries	25.0
dissertations	25.0
mock vivas	25.0

Table 3 (overleaf) expands on the data presented in *Table* 2 by indicating the percentage that each of these forms of assessment contributes to the student's total or final mark. As is evident from *Table 3*, there is no uniformity of standard as far as the breakdown of student's marks is concerned. In two of the cases, oral assessments contribute to fifty percent of the final mark and in two instances; the oral test/examination is the only form of assessment. The rest of the percentages indicate that the marks allocated for each form of assessment differs from one respondent to the next, from institution to institution and indeed from country to country. In other words, no commonalities were evident. Academics seemed to be using different calculations to arrive at a final mark for their students, where some relied only on one form of assessment (for example, written tests, oral tests or assignments) to calculate a students mark, others calculated their students' final marks by affording different methods of assessment (*albeit* differing) portions of the final mark, for example, seventy percent for their assignments and thirty percent for their portfolios to make up a total of one hundred percent.

Table 3: Forms of Assessment - Percentage of Final Mark

Form of assessment	**Percentage of the final mark**
written tests	100
assignments	100
	70
	40
projects	30
	40
	100
portfolios	20
	30
oral presentations	0
	30
oral tests/examinations	40
	100
clinical assessments	50
learning diaries	50
dissertations	50
mock *vivas*	50

Tables 1, 2 and 3 do not indicate any common or overwhelmingly majority practice at the institutions surveyed. I therefore could not use the information gained from the survey of the international institutions to underpin my approach to mixed-mode assessment. I did use the information from this international survey to inform the structure and procedure of the first round of the oral assessments at UND.

In response to the question as to whether they test subject content orally, six of the respondents indicated that they do, while three indicated that they do not. All three

respondents that answered "*no*", agreed to fill in the questionnaire as they had knowledge of oral assessments from their colleagues in Science. They were therefore able to contribute in terms of procedure and process. Reasons forwarded by the respondents for their or their institutions' use of oral assessment included the improvement of oral communication skills and the imitation of the future professional situations that students would find themselves in.

Table 4 provides a summary of the details as to how oral assessments are conducted at the institutions surveyed. *Vivas* seem to be the most popular form of assessment. All the other information relating to process differs widely depending on demographics and individual preferences. *Vivas* are "a general non-patient based encounter between a candidate and one or more examiners" (Wakeford *et al.* 1995: 931) and they may for example constitute a case presentation or a discussion with argumentation or a group discussion.

Table 4 – Summary of Oral Assessment Formats used

Subjects/courses which test content orally	**Level of study**	**Format I/G No. in Group**	**Form of assessment used**	**No. of examiners**	**Time**
Dairy Science	5th semester	group of 6-8	group discussion	2	3 hours
MA Research	5th semester	indiv.	viva	2	30 mins
Organometallic Chemistry; Applications of Photoionization	5th/9th semester	indiv	presentation	1	20-40 mins
Organic Chemistry	1st year	indiv.	viva	3	1 hour
Phd	3rd year	indiv.	viva	2	1.5-2.5 hours
Usability	2nd or 3rd year	group of 2-3	viva	2	30-45 mins

In the case of Dairy Science, at the end of the semester students are provided with a list of topics which were discussed during the course. At the beginning of the examinations, each student (generally in groups of three) draws one or two questions (from a hat) from the whole series of topics. They then work on the topics they have drawn and are given a minimum preparation time of 30 minutes after which they speak about the topic/problems in detail. Depending on the student's performance, the examiner may pose questions either to help the student, or to seek further clarity on the student's understanding of the topic.

In project work, the group of students chair the meeting during which their reports are presented, discussed, defended and assessed. The students make the agenda, conduct the discussion and have the examiners make the decision to pass or fail and to fill in the forms required. Both the student and examiners pose questions and give answers. Only two of the respondents said that their students write an exam/test in addition to the oral assessment and the written and oral marks are combined to give a final mark. Reasons advanced for combining the marks were that pure facts are tested in a written examination while the understanding and ability to apply the knowledge is tested orally. Oral assessment is the only form of assessment for the students doing project work. A pass/fail system is utilized and the student has to pass all elements. This is a clear indication of what a significant role oral assessment plays in the lives of these students. It is in fact their only form of assessment.

Responses to the question: how do students feel about the oral assessment, indicated that students favour oral assessments because they have personal contact with the examiners and mistakes and misunderstandings can be easily corrected. Attitude of staff to the use of oral assessment was aptly summed up by one respondent who said "*we have relatively big classes of students. In the case of chemistry students, the number of freshmen is about one hundred and twenty to one hundred and thirty. To assess such a big number of students (not to mention the repeated exams) is very exhausting. In spite of this fact, the great majority of my colleagues insist on oral assessment which we consider as a didactic tool for the education of high quality with personal contacts with our students*".

Seven of the respondents said that the oral assessments are public exams, so that any student can benefit from the exam, "*which is actually a learning session*". Brown *et al.* (1997: 13) agree that "assessment is a necessary part of helping students to learn". The public oral exam

provides the perfect opportunity for learning as the audience can listen to the examiner and the candidate, learning not only from the correct responses of the candidate but benefiting also from the comments and feedback from the examiner. The audience can also benefit from mistakes or misinterpretations that are made so that they avoid similar mistakes in their assessment. So, in the oral exam, students learn from the immediate feedback on their as well as other students' assessments. If a student is unable to answer any of the questions, the examiner responds by often re-phrasing or re-thinking the questions or trying to guide the students with leading questions, making them think in new ways. "*First I give possibility to answer [Sic.] to the group, if they don't answer then I put the question in different form [Sic.]. If those are not enough then I answer the question with so small reminding questions [Sic.]*" (Personal communication from Italian-speaking respondent). This of course cannot be done in a written exam. If the student misinterprets or does not answer the question correctly, he or she will only find this out when the marked script is returned. In the oral exam, misunderstandings may be ironed out immediately.

Response to the question on the effect of the mood/emotional state of the examiner on the interaction/assessment was largely that subjective factors cannot be excluded considering that the examiners are human beings. One respondent felt that it is "*not so much the mood, but the examiners are not equally competent in interviewing*". Grant (1996: 15) agrees that "assessors need the skills to do this type of assessing and I am afraid many of our assessors have had no training in this area". Grant therefore recommended that staff must be trained to conduct oral assessments. In respect of the effect of the state of tiredness/freshness of the examiner on the interaction/assessment, there was agreement that "*we are never only one examiner, but a group of examiners*" so that one person does not have to do all the work.

The assessment criteria used for the oral assessments ranged from compiling model answers to students' responses being rated on a 5-point scale. Others used the pass/fail system and wrote reports on their students' performances. No common criteria, grid or system was used by all the assessors. To answer the question: how does the examiner differentiate in terms of marks if a student demonstrates a deep understanding of the subject matter as compared to a student who has simply answered the basic questions asked, respondents agreed that the answer itself is not important "*but we care that the student has a clear understanding of the reasons which support the answer*". Three said that students are only given a pass or a fail,

but the examiners' report often indicates quality. To pass they must be able to understand and apply the knowledge. Respondents said that the questions should be made so that the deep understanding is easily seen from the answers, and that the criteria for assessing oral examinations are not explicit and shared but often implicit and personal. It was clear from the responses that the assessors did not concern themselves with the subjectivity of their grading of the students' performance. This also means that the students were not given any definite criteria on which they were being assessed. The warning bells regarding reliability and validity of the assessments are resounding as it calls into question the effects of: personal relationships (between assessor and candidate or between lecturer and student), all sorts of bias (including language, gender, race, appearance and presentation) and emotional state (mood, tiredness and interest) of the assessor, on the grade or pass/fail decision that the candidate receives.

There was wide variation in responses when asked how they selected the questions for the oral assessment as follows: "*the questions are discussed in the examination group (4-5 people) prior to the assessment*", "*entirely at examiner's discretion*", "*it is based on the lectured material during the semester. The whole series of questions should cover all the topics discussed*", "*small problems are constructed and circulated among a few of the teachers for criticism. It should be tasks that have a practical application or analytical questions that require deeper understanding*", "*I've pre-made papers in a hat and students take questions from the hat*", or, "*by the examiners individually. There is no agreed upon number or types of questions, nor any agreement as to which questions which will be formulated. Each examiner is allocated a time frame and fills the time as she or he pleases*"

Again, there was no standardization or a common policy that was followed for all oral assessments. Responses to this question corroborated responses to the questions pertaining to moderation, reliability and validity. Moderation of marks did not seem to be a major issue as marks are not allocated in most instances, the pass/fail system is used. Others said that moderation takes place as in a "*paper exam*" while still some maintained that "*they are not moderated*". They said that standards are maintained and questions are moderated by: "*a 'neutral' chairperson who ensures fair play*", "*continuous reflections and open mind to developments in the field (as most teachers are also researchers)*", or, "*after completion of the whole exercise, statistics are computed and the results are shared and discussed*".

Two of the respondents said that this was "*not an adequate question in our case. From school-year to school-year I have approximately the same list of questions. It is influenced only by the changes in the lectured material. The questions (the papers in the hat) are printed from a document and each year the document must be updated*". 'Power' is clearly in the hands of the assessors. In the absence of structured moderation and control, the examiners could basically conduct the assessments as they wish. It is commendable that the assessors respect the professionalism of their colleagues, but it is also clear that structure, uniformity and standardization are clearly lacking in the compilation and moderation of questions for all students. No concrete information pertaining to reliability or validity was obtained from this survey. From the low response rate and the quality of the answers given, it would seem that the respondents did not concern themselves with issues of reliability and validity of the oral assessments. I found this very strange as the reliability and validity of oral assessments are continually questioned in the literature on oral assessment and is actually noted as a drawback to the use of oral assessment. Respondents in this survey also indicated that they have been conducting oral assessments for "*decades*" and that it is part of the "*tradition*", so, it is very surprising that they have not questioned the reliability and validity of these assessments after all these years.

When asked: how do examiners ensure that students who are assessed later in the day are not advantaged in terms of knowledge of the questions asked, four said that this question "*presupposes that there is one correct answer of the question, which the students can deliver to each other. There is not. Students know the list of topics from which questions are drawn*". Two indicated that the questions have been given to all students a week in advance and also "*the examiners will ask follow-up questions if they feel that a student is only repeating something and cannot explain the basis*". Respondents agreed on the advantages that they experienced with oral assessments. They valued the immediate feedback to the students which enhances the learning part of the assessment. They also appreciated the fact that the oral assessment "*mirrors the future professional situation*" and that "*one can have a dialogue and help the student*" so that "*it is not that fatal if the candidate misinterprets a question*".

Disadvantages were expressed in terms of false positive and negative judgements, "*false positive when a student expresses exactly what one of the examination group wants to hear and false negative when a student is very nervous*". In other words, when the results obtained

were not a true reflection of the students' knowledge. When asked to describe their feelings about/attitude to the oral assessment of subject content, one respondent aptly summed up the feelings of the others as "*I like it, because you can handle your students as human beings having specific personalities, skills and talent. In other case [Sic.] (written exams) all these facts are hidden and simplified to identification number [Sic.]*". Respondents were unanimous that the oral assessment allows the examiner to cater for individual weaknesses or strengths. This definitely supports my proposal that all students can benefit from oral assessment as each assessment situation can be shaped around the individual being assessed.

This survey of the institutions abroad has shown that the respondents feel positively about oral and mixed-mode assessments, that their own experiences and the experiences of the students have fortified their belief in the use of oral assessments as a valuable tool in measuring student understanding and application of their knowledge of content. Respondents enthusiastically proclaimed oral assessments as "*a good idea and good practice!*". This is also evident in the fact that they have continued with oral assessments into the 21st century.

E-mail correspondence

Correspondence *via* e-mail with some academics abroad, who were not part of the questionnaire analysis above, is presented in this section. The correspondence has been presented by grouping the academics from each country in order to facilitate readability. The following has been included in my discussion as it further demonstrates that assessment practice differs from one region to the next and indeed from country to country making it very difficult to use a particular model as an example on which to base my assessments. The time allocated for the assessments, the format and the purposes differ widely.

Switzerland

I corresponded with a friend, Paul Perjes at the Worlddidac Organization in Zurich who put me in contact with colleagues from two Swiss institutions, Martin Stauffer from the Swiss Education and Research Network in Zurich, and Eva Gurtler from the Information and Documentation at the Central Office of the Swiss Universities, in Bern. They all responded to my question on assessment procedures in the area of Science in Switzerland confirming that

assessment procedures differ from one institution to the next. Perjes said, "*The evaluation systems and exams of the Swiss universities are not nationally standardized and differ from one university to the next and from subject to subject*". He added that, "*oral assessment is widespread at tertiary institutions in Switzerland*". Stauffer concurred that, "*oral assessment is used from primary to tertiary level as a part of continuing evaluation during the year and also at exams. The conditions of oral assessment differ from level to level, from institution to institution and from examiner to examiner*". Eva Gurtler from Information and Documentation at the Central Office of the Swiss Universities, in Bern provided a few examples of exams at tertiary level:

> *At the University of Basel, for the Master of Arts, the exam is made up of a thesis, two written exams (4 hours each) in the major and minor subject and three oral exams- 60 minutes for the major subject and 45 minutes each for the two minor subjects.*
> *At the University of St. Gallen, for the Master's degree in Business Studies, the written exam lasts 5 hours and an oral exam lasts 20 minutes. In disciplines which have oral and written exams, the average of the oral and written result is taken as the assessment. At the Federal Institute of Technology in Zurich for the master's Degree in Biology, the exam is made up of a thesis and oral exams in 5 disciplines of thirty minutes each. The average of the five oral exams must be a 4 (on a scale from 1-6, 1 being the lowest and 6 the highest mark, 4 is a pass).*

Stauffer added that "*at the University of Berne, in the Faculty of Philosophy, oral assessment covers 50% of the final exam and lasts 45 minutes for each student. The examining panel is made up of one examiner and one co-examiner*".

Britain

Alex Johnstone from the Centre for Science Education in Scotland had received my questionnaire but expressed regret that he could not provide comprehensive information as he worked mainly with postgraduate students, but he readily volunteered information on assessment procedures in Science in British universities. He said that it is fairly typical of British universities to "*conduct about five orals out of a class of one hundred*". He added that orals are used only at final year level and then "*only for students who are on borderlines between pass and fail, 3rd and 2nd class honours and between 2nd and 1st class honours*".

Johnstone put me in contact with colleague, Alan Cooper from the University of Brighton who said that orals are particularly used for students to defend their doctoral thesis, but "*can also be used where it is wished to check that the work is the student's own*".

Holland

In Holland, I corresponded with colleagues, Henk van Berkel from Maastricht University and Ineke van den Berg from Utrecht University. Van Berkel said that orals are "*not used widely in Dutch Higher Education today*". This was supported by van den Berg who added that "*when I was studying in the eighties, many teachers at university assessed their students, individually, by an oral examination of approximately 1 hour per student. With the massification of the university, this procedure took too much teacher time and because of their lack of reliability and validity, they are not used anymore*".

Hungary

I contacted Laszlo Szepes from Eotvos University in Budapest following the Innovations 2000 Conference in Helsinki, Finland. He had a different view on large classes. He said that even though numbers of students has increased considerably, "*oral examinations are still the preferred form of examinations at tertiary level in Hungary*" for the following reasons: *chemical knowledge can be assessed by written examination, but chemical intelligence can be assessed much better in an oral conversational form; apart from chemical knowledge we have to improve also verbal communication skills (which are generally very poor); oral examination might be a part of the learning process because mistakes, misconceptions and misunderstandings can be corrected and discussed, while no such possibility is given in performing a written test*

It is evident that oral assessments are a popular form of assessment in Switzerland. It is also interesting to note that the *average* of the oral and written mark seems to be the popular method of calculating the student's final mark.

Summary of e-mail correspondence

Szepes seemed to sum up the e-mail correspondence by saying, "*it seems to me that oral assessment is used in Europe where German educational traditions are still influential, while English dominated countries use written tests*". It is interesting to note that oral assessments are being used, but in different formats, for different purposes and at different levels of education. Again no common practices with regards to oral assessments could be noted. Those who do use oral assessments seem to advocate its advantages while others have abandoned the use of oral assessments in favour of 'less' time-consuming forms of assessment.

ANALYSIS OF RESULTS: SOUTH AFRICAN SURVEY

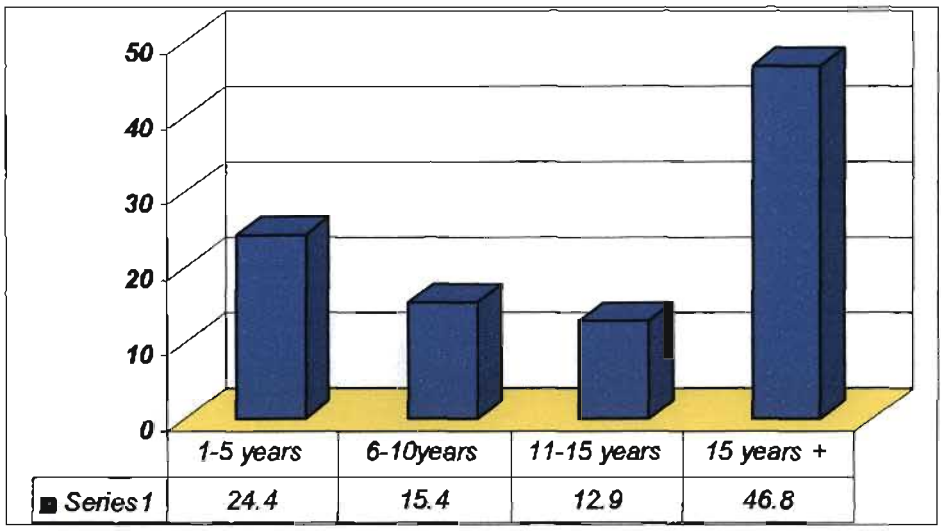
201 unspoilt questionnaires were received from South African higher education institutions as indicated in *Table 5* (*on page 88*). A total of fourteen faculties, sixty two departments and one hundred and seventy two subjects were surveyed (*Appendices A, B and C*). This population was made up of 56.7% (114) males and 42.3% (85) females, with 1.0% (2) not indicating their sex.

As represented in *Figure 1 (on page 89)*, 46.8% (94) indicated that they have more than fifteen years of lecturing experience at tertiary level and 24.4% (49) indicated that they have between one and five years of experience - representing experience across the spectrum, ranging from lecturers who have been around for a long time and who have therefore possibly been exposed to an assortment of teaching and assessment methods over the years, to the lecturers who are relatively new to the tertiary environment, perhaps bringing in innovative ideas in terms of teaching and assessment. 15.4% have between six and ten years of tertiary experience and 12.9% have between eleven and fifteen years of experience. It is evident from *Figure 1* that the majority of the respondents have many years of experience in tertiary education which means that their responses are borne out of this experience.

Table 5: South Africa Higher Education Institutions Surveyed

Name of Institution	**Frequency**	**% Response**
Border Technikon	5	2.5
Cape Technikon	14	7.0
Mangosuthu Technikon	1	0.5
ML Sultan Technikon	3	1.5
Port Elizabeth Technikon	5	2.5
Potchefstroom University	1	0.5
Potchefstroom University for Christian Higher Education	7	3.5
Rand Afrikaans University	8	4.0
Rhodes University	9	4.5
Technikon Free State	2	1.0
Technikon Natal	7	3.5
Technikon Northern Gauteng	3	1.5
Technikon Pretoria	6	3.0
Technikon Witwatersrand	17	8.5
University of Cape Town	33	16.4
University of Namibia	2	1.0
University of Natal – Nelson R. Mandela School of Medicine	6	3.0
University of Port Elizabeth	2	1.0
University of Pretoria	1	0.5
University of Stellenbosch	18	9.0
University of the Witwatersrand	18	9.0
University of Transkei	2	1.0
University of Venda	8	4.0
University of Western Cape	3	1.5
University of Zululand	6	3.0
Vaal Triangle Technikon	9	4.5
Vista University	5	2.5

Figure1: Lecturing Experience at Tertiary Level



When asked to indicate the approximate percentage of students in a typical class they teach, the results as indicated in *Figure 2* were: African students: 186, Indian: 127; Coloured: 137; White: 161; other (including Chinese/Asian): 51.

Figure 2: Percentage Breakdown of Students in a Typical Class

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AFRICAN	186	0	100	46.96	35.73
INDIAN	127	1.00	72.00	13.3701	15.7696
COLOURED	137	1.0	85.0	13.212	14.076
WHITE	161	1	100	44.81	31.23
Valid N (listwise)	95				

Figure 2 shows that the majority of the students are African which could mean also that the

majority may be non-mother-tongue speakers of English. As these figures were obtained from various institutions in South Africa, it is not known exactly what percentage of the total population are EFL or ESL speakers of English. Had the respondents been asked to indicate what percentage of EFL, ESL or foreign speakers of English made up a typical class that they teach, many would not have been able to provide this information. As an educator at a tertiary institution myself, I must admit that even I cannot categorise every individual's English language proficiency in the very large classes that I teach. The home, school and social environments would have contributed to the students' proficiency in English. This is the reality that educators in the South African class are faced with, they cannot decide on the basis of the colour of a person's skin whether they are EFL, ESL or foreign speakers of English. It is important to bear this in mind as one reads through the responses regarding assessment practice in tertiary institutions in South Africa.

One hundred and twenty two (60.7%) responded that they do not test subject content orally, while seventy nine (39.3%) indicated that they do. Of the one hundred and seventy two subjects included in this survey, fifty nine subjects are assessed orally or have an oral component of assessment *(Appendix D)*. Of these fifty nine subjects, twenty (33.9%) are in the medical field. Forms of oral assessment currently used by academics locally are indicated in *Table 6 (on page 91)*.

Vivas, question/answer sessions and interviews are conducted by 33.3% of the population. individual assessments are conducted by 26.4% while 6.5% conduct group assessments. 65.2% did not respond to this question, most likely because they do not test content orally as indicated in the preceding question. The group assessments are made up of between two and ten students depending on the nature of the assessment. The minimum amount of time allocated per assessment was ten minutes and the maximum was one hour. The number of examiners varied from one to seven, with some indicating that the examiner and all the student's peers conducted the assessment. No uniform or common practice was noted among subjects or among respondents who use oral assessment to test content.

Table 6: Forms of Oral Assessment Used

Form of assessment used	Percent usage
vivas	12.0
presentations	49.3
question/answer sessions	17.3
interviews	4.0
clinical oral	1.3
seminar presentations	1.3
project presentations	1.3
objective structured clinical examination	4.0
video and questions	1.3
patient simulation	2.7
practicals	4.0
seminars	1.3

Table 7 (*on page 92*) presents the reasons for using oral assessments. Improving communication skills is obviously a priority. This makes perfect sense as an improvement in communication skills will benefit students in all spheres of their education as well as in their life within and outside the institution. It is a pity that the questionnaire had to take the written form (the cost of travelling to every institution in the country was too high) and I could not ask the respondents to elaborate on why they wanted "*to allow the students to express themselves verbally*", that is, what benefits they hoped to derive from this and why the written expression did not suffice. Perhaps I have just answered my own question, that the oral assessment allows dialogue between the assessor and the student so that issues can be discussed or interrogated. The absence of "*live discussion*" in the written assessment denies one the latitude to probe or test for deeper understanding of concepts.

Table 7: Reasons for using Oral Assessments

Reason for using oral assessment	Percent response
to assist in the improvement of the students' communication skills	50
to test the students' deeper understanding of concepts	58
to allow the students ' to express themselves verbally	50
to test application of knowledge	56
students demonstrate the use, operation and understanding of an instrument	0.5
oral assessment is used for missed written tests	1.5
to improve the ability to argue logically	0.5
to test confidence with which information is communicated	1.0
to test student's ability to communicate science	0.5
to assess clinical abilities in assessing patients	0.5
to learn the terminology/language of the subject	0.5
for culturally disadvantaged students	0.5
only test orally during practicals	0.5
improve students presentation skills	3.5
to promote critical thinking skills	0.5
oral re-exam if student has failed written test	0.5
used for borderline students only	2.0

Allocation and Weighting of Marks

28.9% of the respondents indicated that the oral mark is combined with a written mark for each student. 6.0% said that the mark is not combined, and 65.2% did not answer this question. There was no evidence to suggest that the oral and written assessments were used to complement or supplement each other. Also, the percentage weighting that each mode of assessment contributes to the final mark ranged from 0 to 100% as indicated in *Figure 3* (*overleaf*) with great variations in the combination of the written and oral marks.

Figure 3: Weighting of Marks

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q9.1	64	0	100	27.47	19.33
Q9.2	61	20	100	68.79	19.75
Valid N (listwise)	58				

It would appear from the reasons given that examiners prefer to go with the tradition as far as assessments are concerned, therefore the heavy reliance on written assessments. Some responded that "*I am just following what has been done in the past*", which means that the process has not been revised over the years and this in itself can be problematic, as it shows that the assessment has not kept up with the changes in education and more especially with the changes at the institution.

Combining Oral and Written Marks

It is clear that those who use the oral assessments are aware of the benefits it produces. They appreciated the informal nature of the oral assessments and the fact that they enhance communication skills. Respondents agreed that both written and verbal skills are equally important and that combining the two gives a broader representative mark. It is also worth noting that respondents regard the combining of the oral and written marks as being a "*fairer*" reflection of the students' knowledge and that it "*ensures fairness*" in a class of diverse abilities.

There was however no consensus on the division of the oral/written marks for those that combine the oral and written marks to make up a final mark for the student. The weighting given to the two modes depended on past practice in the department or at the institution or not wanting to "*prejudice students with poor presentation skills*". This then begs the question: what about the bias towards the student with poor writing skills? Respondents were emphatic that written assessments are more traditionally accepted. My response to their dilemma regarding presentation skills is that if the weighting is based on or heavily based on

the students' presentation skills, then the assessment criteria must clearly indicate that this is indeed the case. Other respondents said that "*students are rewarded in proportion to the amount of time and effort spent on a project or piece of work by giving the written component a higher weighting*", this implies the assumption that the written work demanded more effort and time. This ignores the fact that the student has to study and prepare intensively for the oral assessment.

Written Only Assessments

The fact that written assessments are more traditionally accepted does not mean that the tradition has to be honoured from generation to generation. Changes in the demographics of an institution must mean that teaching, learning and assessment practices must keep pace, otherwise, the education being provided will not have the desired effect or results. The increase in the number of African students into tertiary institutions most likely means that the majority of the students are not mother tongue speakers of English, yet English continues to be the medium of instruction at many tertiary institutions in South Africa. This means that teaching and learning are taking place in a language that is foreign to the student. Mangena (2002: 14) says that "research by universities has shown that language is one of the greatest barriers to success" for African students. The non mother tongue speaker of English has to cope with the lecturers' language (pronunciation, accent, expressions, examples and humour); the textbook and notes in English, and the assessment (which is also in English). Surely, this needs to be addressed and the options examined. Teaching and testing in the students' mother tongue would immediately pose a few questions: what does a lecturer do in a multilingual classroom, where there are many different mother tongues? What would be the medium of instruction? If an indigenous language is chosen, what about the students who do not speak the chosen indigenous language?

Using English would then prove to be more viable, and, as mentioned earlier, students prefer to keep English as the medium of teaching and testing (*see* Pretorius 2001b: 19). Since the language issue cannot be immediately resolved without repercussions in the typical South African classroom, one needs to re-examine the methods of teaching and testing in the present context. Specific strategies need to be employed in teaching and assessing through English in a multicultural and multilingual context.

Respondents also indicated that "*we are still doing the work of the schools in the first and second year*" because "*students cannot express themselves adequately in English*" (*see* Ntenza 2004). This is supported by Tshabalala who attributes the dismal matric results in the country [South Africa] on "poorly presented textbooks and poorly drafted examination papers" (Pillay 2002: 1). Surely the tertiary institutions and the government need to address this situation urgently. Concrete measures have to be put into place to equip students to succeed in education. One cannot expect the educators at tertiary level to "do the work" of the schools. Assessors have to realise that the present written-only system of assessment is not yielding the desired results and that alternate methods have to be investigated.

Oral Assessments

A total of 79.1% of the educators agreed that misunderstandings due to language are minimised and that both the examiner and the candidate benefit from the interaction during oral assessments. Contrary to the misconception that orals are unfair to the student because they get to know the content of the test, respondents indicated that from their experience with oral assessments, it allows for "*assessing individual growth and variation with the same concept*". It also "*keeps the examiner stimulated and students from knowing the content of the test*". There was general agreement that there is a need to increase oral assessments because "*students need to build communication skills*" and "*they need to practice skills which are important in industry*". After all, as stated earlier, an improvement in communication skills in the medium of instruction, can only lead to improved performance.

Those who do not use oral assessments said, "*oral assessment is not in the curriculum*", "*the present system does not allow it*", "*it is not in the institution's policy*" or "*it is an area not explored*". Some said that they "*would like to try it*", but it would mean "*too much of red-tape*" in terms of changing policy. Making changes to the system of assessment at any level of education is no mean feat. Assessment does after all, affect the job and career opportunities, working life and salary earning potential of the individuals within a system of education. Exit levels are also affected and this calls into play the Quality Assurance policies of the institution. So, rather than take on the muscle of the institution, lecturers generally follow the trodden path in terms of assessment, because at least they know that what they are doing has been sanctioned by all the stakeholders and that they do not have to fill in countless

forms or wait a long time before they are allowed to make the desired changes. With regards to institutional policy on assessment, one must bear in mind that we have recently come out of an apartheid system of government and therefore an apartheid system of education. For this reason, the assessment policies at the institutions cater for the first language speakers (of the medium of instruction) at the institution. The policies have not been sufficiently revised as far as assessment is concerned to cater for the second, third and foreign language speakers of the language. As a result, all students are tested using the same methods of assessment regardless of their level of proficiency in the language or medium of testing.

Mixed Mode Assessments: Combining the Oral and the Written

Written only assessments seem to dominate the higher education assessment scenario in Science in South Africa, yet a total of 70.7% of the respondents felt that mixed-mode assessments are either "*useful*" or "*very useful*". They felt that "*it may be easier for the students to express themselves correctly, orally*" and that "*students can only benefit from improving their communication skills*". They also said that it "*would allow for a more complete evaluation as students have different strengths and weaknesses and mixed-mode assessment would allow students to excel where they are strongest*".

They agreed that oral assessments would "*steer students away from memorising and towards understanding the subject matter thereby serving as a valuable learning tool*". It is interesting to note that all the assessors who participated in my research in all three rounds of the assessments, echoed the sentiments expressed above. Even the students agreed with the above benefits of mixed-mode assessment. Ramsden (1988a: 25) concurs that assessment serves as a valuable learning tool and adds that, assessment can become "a window through which teachers can study their students' learning. Through this window, both instructor and student may see what progress has been made in learning a subject and what specific aspects of the content are partially understood or misunderstood". Forty four respondents said that mixed-mode assessments are not useful because "*oral assessments can only be used in disciplines where communication (and not science) per se is an outcome*" or "*it is not practical for big classes*". They were also sceptical because they "*don't know how to conduct these assessments*" and they were concerned that oral assessments are "*open to abuse that is, lecturer bias*". A re-examination of the questionnaires revealed that all of the above

respondents do not test subject content orally. It is also probably safe to assume that some of the above respondents have never tested subject content orally.

The belief that "*not all subjects lend themselves to oral assessment*" as expressed mainly by the Mathematics educators in this survey, has to be challenged, because Mathematics can definitely be assessed by oral assessment. When working out a problem, there are processes, steps and logical thinking at work in order to arrive at a solution. The application of formulae and the proof of theorems can be explained and the examiner can question the reason for applying certain methods instead of just assessing the student on the basis of the solution provided. As one respondent said, "*it can give an indication of how students understand the concepts rather than just applying formulas*". Also, no matter what profession the student is in, he or she will have to interact with others on a personal, social or professional level. Communication skills are therefore important for all individuals in all professions. In support of the role of language for Mathematics education, Anstrom (1997: 25) noted that:

> Command of mathematical language plays an important role in the development of mathematical ability. The importance of language in mathematics instruction is often overlooked in the mistaken belief that mathematics is somehow independent of language proficiency. However, particularly with the increased emphasis placed on problem-solving, command of mathematical language plays an important role in the development of mathematical ability. Mathematics vocabulary, special syntactic structures, inferring mathematical meaning, and discourse patterns typical of written text all contribute to the difficulties many students have when learning mathematics in English.

Some educators expressed the desire to conduct oral and mixed-mode assessments but are unsure of how to conduct these assessments - it is hoped that my study will provide assistance in this regard.

SUMMARY

Oral assessments in Science are reportedly being used with success in institutions abroad. Similar successes have been noted from a few tertiary institutions in South Africa.
The advantages of using oral assessments and more especially mixed-mode assessments as expressed by the respondents show that they can be used for maximum benefit and effect in

assessment, as one respondent aptly said, "*written examinations alone may not reveal the student's full knowledge or comprehension*".

Reservations about mixed-mode assessments were expressed by South African and international academics especially with regard to time. The issue of large classes and time-constraints will have to creatively dealt with (*refer to discussion in Chapters Four and Five*). Massification of institutions in Hungary, for example (mentioned in the analysis of the overseas survey), has not deterred educators from using oral assessments because as far as they are concerned, the benefits far outweigh the issue of large classes.

Data collected from South African tertiary institutions informed my study about present and past assessment practices locally. It was interesting to note how academics cope with the challenges they face in the growing multicultural and multilingual classrooms. Correspondence *via* e-mail, personal contact with academics from abroad, and my general knowledge of literacy, history, education and politics confirm that the demographics of the institutions of the population surveyed differ vastly from the demographics of higher education institutions in South Africa.

The information gathered from the two questionnaire surveys served as a springboard for the structure of the assessments. In the absence of a 'successful formula' that would suit the South African higher education context, the first round of assessments conducted at the University of Natal, Durban, was constructed by drawing on and adapting the information regarding practices and processes of the oral assessments gained from both the surveys of the South African and the international institutions and a study of available literature. Bearing in mind the South African evaluation system (where marks have to be allocated for student assessments), the make-up of the classes (being multicultural and multilingual), the fact that students are used to written only assessments, and the fact that assessors were not prepared to 'tamper' in any way with the written-only assessments, a careful mix of ideas had to be elicited from the surveys and the literature. Fortunately, I was assisted in this regard by two of the assessor-participants in my project who collaborated with me in an attempt to devise the pilot assessments. They were able to blend their own experiences with oral assessment as students in Italy with their experience as lecturers and assessors at tertiary level in South Africa. The surveys revealed that the *vivas* were the preferred method of oral assessments

used, so the oral assessments in my project were set up as an "encounter between a candidate and one or more examiners" (Wakeford *et al.* 1995: 931). The other methods used, for example, the presentations of reports and chairing of meetings were deemed to be intimidating for our students being exposed to oral assessments for the first time. Also, the purpose of introducing the orals was to assist and not intimidate the students. We were mindful of the criticism of subjectivity in oral assessments and did not want to prepare individual questions for students for fear that we would favour some of the students or disadvantage others because of our prior knowledge of their capabilities. We therefore elected to select student questions from a bank (where some used a 'hat') and because we had to assign marks for the assessments, we agreed to group the questions into categories depending on the marks they carried.

The following chapter details the methodology used for fieldwork and explains how the assessments were conducted and the processes refined.

CHAPTER FOUR
METHODOLOGY

INTRODUCTION

In this chapter, I describe the research methodology for exploring the implementation of oral assessment. In the first section, I discuss the reasons for adopting a qualitative research approach, offering an overview of action research as a particular orientation to a study of this nature where an iterative framework was needed to study my assessment intervention with the various groups. I then go on to outline the particular settings, the participants (students and assessors), the various tools for studying the assessment intervention, and the actual design of the study. Finally I discuss the ways in which the issues of validity and generalizability apply to my study and how they were addressed in the study

QUALITATIVE OR QUANTITATIVE RESEARCH?

Elliott (1991: 64) believes that "quantitative methods, which are designed to produce aggregated data in depersonalised and decontexualised form, appear to constitute the perfect solution to the 'insider researchers' dilemma". The researcher is able to produce data that would be quantifiable and unbiased, as they generate "public knowledge" which de-personalises the data. Colon *et al.* (2000: 2) agree that qualitative research emphasizes "participant observation" whereas quantitative methods rely on the "research instrument through which measurements are made". Weiler (2001: 415) adds that if teachers want a "deeper understandings of their students and their learning", they will not be able to achieve this through quantitative research, they will need to be "intimately involved" in the process. Qualitative research would provide this opportunity. As Labuschagne (2003: 1) says, "qualitative data provide depth and detail through direct quotation and careful description of situations, events, interactions and observed behavious" or what Jones (1997: 3) describes as "empathetic understanding". Winter (2000: 8) concurs that while "quantitative research limits itself to what can be measured or quantified", qualitative research "attempts to 'pick up the pieces' of the unquantifiable, personal, in depth, descriptive and social aspects of the world". As Denzin and Lincoln (1994: 4) aptly noted, "qualitative researchers stress the

socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry" (*see also* Denzin and Lincoln 1998). The nature of inquiry in my research suited a qualitative approach so that the richness of the data gathered could be fully explored. A quantitative approach would not have yielded the desired results, as Winter (2000: 9) cautions, "what is certain is that qualitative research sets itself up for failure when it attempts to follow the established procedures of quantitative research such as experimentation, efforts of replication, use of control groups, use of standardised formulas or the use of pre-test/post-test method".

Action Research within Qualitative Studies

> Action research is an approach to improving education through change, by encouraging teachers to be aware of their own practice, to be critical of that practice, and to be prepared to change it. It is participatory, in that it involves the teacher in his own enquiry, and collaborative, in that it involves other people as part of a shared inquiry. It is research with, rather than research without (McNiff 1988: 4)

As my research endeavoured to devise a 'new' form of assessment for the South African context, it required techniques and tools that would provide for exploration and that would allow for modification along the way. I would need to determine its structure, format and administration and train assessors to conduct them effectively. Only after the assessment system was devised and trialled, would the shortcomings become apparent. These shortcomings would then need to be addressed and the assessment re-trialled until a good "fit" (to borrow von Glasersfeld's 1987: 5 term) for all the participants is acquired. Like Joyce Nyof-Young (2000: 472), I too was impressed with the literature on action research, particularly with the use of terms and phrases such as 'shared leadership', 'collaboration', 'empowerment' and 'transformation'. Elliott (1991) and Weiler (2001) believe that the ideals of action research are reflected in constructivist and critical thinking as teaching, learning and research are all part of the same process. After careful consideration, I decided a tool that would allow me to follow such a cyclical method of trial/re-trial is an action research approach.

Action research has been an important part of educational theory and practice since the 1940's (Corey 1953, Lewin 1946, Noffke 1992) and in recent years, action research in a variety of forms has been providing teachers at all levels of expertise with opportunities for personal change, improved practice and professional transformation (Noffke 1997, Noffke and Stevenson 1995, Oja and Smulyan 1989, Wells 1994). Definitions of action research are problematic. Carr (1989: 85) stated that "action research now means different things to different people and, as a result, the action research movement often appears to be held together by little more than a common contempt for academic theorising and a general disenchantment with mainstream research'". Habermas's (1972), Carr and Kemmis's (1986) and Elliot's (1991) representation of action research into three clearly distinct types, namely, 'technical', 'practical' and 'emancipatory' was critiqued by Gibson (1985), Lewis (1987), Whitehead (1985) and Whitehead and Lomax (1987) who located the core of the process very firmly with the individual.

A plethora of models of action research evolved in the 1990's adding to the difficulty of precisely defining the action research process. Kemmis' (1990) model incorporated reconnaissance, planning, first action step, monitoring, reflecting, rethinking and evaluation. In 1952, Lewin's 'spiraling' cyclical process model included planning, execution and reconnaissance. Sagor's (1992) model described a sequential, five-step process that included problem formulation, data collection, data analysis, reporting of results and action planning. In 1994, Calhoun's model described selecting an area or problem of collective interest, collecting data, organizing data, analyzing and interpreting data and taking action. Wells' (1994) model involved interpreting, planning change, acting and "the practitioner's personal theory" (1994: 27) that informs and is informed by the cycle. Stringer's (1996) model dealt with looking, thinking and acting as a "continually recycling set of activities" (1996: 17). Although these action research models share some common elements, Jennings and Graham (1996: 276) felt that "a static definition (for action research) is neither feasible nor appropriate in a postmodern world". In an attempt to find a way out of the maze of information, Hollingsworth *et al.* (1997: 312) suggested that "action research has 'multiple' meanings and uses". They went on to recommend that "what we need to look for is *not* whose version of action research is *the* correct one, but rather, what it is that needs to be done, and how action research can further those aims (1997: 312)".

Mills (2000: 5) provides a useful and informative comparison between traditional and action research which briefly describes some of my reasons for choosing the action research approach. Although mention is made below (*on page 103)*, and indeed by many other practitioners and promoters of action research, that action research is conducted by teacher researchers, and principals on "children in their care", my study did not involve my own students. I enlisted the help of lecturers and assessors at two tertiary institutions to enable me to conduct my research. Thus, my research does not fit into the "reflective teacher model" wherein critical inquiry, based on experience, followed by reflection, is used to continually improve the practice of teaching (McMahon 1999: 165, *see also* Ashcroft and Foreman-Peck 1994: 3-9).

	Traditional Research	**Action Research**
Who?	Conducted by university professors, scholars and graduate students on experimental groups	Conducted by teachers and principals on children in their care
Where?	In environments where variables can be controlled	In schools and classrooms
How?	Using quantitative methods to show to some predetermined degree of statistical significance, a cause-effect relationship between variables	Using qualitative methods to describe what's happening and to understand the effects of some educational intervention
Why?	To report and publish conclusions that can be generalized to larger populations	To take action and effect positive educational change in the specific school environment that was studied

(*Taken from* Mills 2000: 5)

The two main theories of action research according to Mills (2000: 7) are "critical (or theory-based) action research and practical action research". Practical action research "assumes to some degree, that individual teachers or teams of teachers are autonomous and can determine

the nature of the investigation to be undertaken" (Mills 2000: 9). This was not the case in my research as I acted as facilitator guiding the research and the whole process of inquiry. The assessors in my study "are committed to continued professional development" (Mills 2000: 9) hence their willingness to participate in my study. It was hoped that using a combination of the practical action and the critical action approaches would "create opportunities for all involved to improve the lives of children" (Mills 2000: 11). What follows is an attempt to classify my research using Mills' (2000: 9) components or key concepts of a critical action research perspective:

Action research is participatory and democratic. Based on my experiences as a second language teacher both at secondary and tertiary level, and my experiences as a lecturer at a technikon, I identified the area of assessment in science at tertiary level in South Africa as the focus of my study. Based on data gathered from students, lecturers, assessors, my own experiences, literature searches and current debates surrounding assessment in South Africa, I decided to investigate the impact of my intervention to determine if it would make a difference.

Action research is socially responsive and takes place in context. I was concerned that students (both first and second language speakers of English) are not given adequate opportunity to express themselves fully in the present written assessment situations. I was concerned also about the effect that this has on their results. I therefore decided to explore other strategies and to implement them.

Action research helps teacher researchers examine the everyday, taken-for-granted ways in which they carry out professional practice. I adapted the oral assessment technique and decided to monitor its impact on student performance and students' and assessors' attitudes towards the methods employed.

Knowledge gained through action research can liberate students, teachers and administrators and enhance learning, teaching and policy making. It was hoped that my intervention into assessment in science would liberate all the participants from the constraints of the present system of assessment.

My study suited Huysamen's (1994: 176) description of action research which is "performed with a view to finding a solution for a particular practical problem situation in a specific, applied setting" and the explanation by McNiff (1988: 74) that action research may be borne out of a "general idea that something might be improved". McMahon (1999: 167) concurs that "action research is distinguished by a deliberate and planned intent to solve a particular problem (or set of problems)". As such, there is "no theory from which one or more hypotheses have been inferred which are to be subjected to empirical research and testing. There may indeed be such a theory which suggests particular solutions for the problem situation, but the purpose of the research is not to test such a theory, but to provide a solution for a problem" (Huysamen 1994: 176).

A second distinguishing feature of action research according to Huysamen, is that it uses a design which may continually be changed and adapted in reaction to information and results obtained during the course of the research project. In my study, the design of the oral assessments was changed and adapted twice after the initial round of testing. Round one of the assessments conducted at the University of Natal, Durban adapted practice from overseas institutions coupled with my own readings and research, round two (conducted at the ML Sultan Technikon, Durban) was adapted to incorporate the responses of students, examiners and my own observations of the first round of assessments, and round three sought to address the resourcing issue of time. Thirdly, action research, says Huysamen (1994:177), places a high premium on involving all participants in each of the above phases. This is supported by Neuman (2000: 25) who agrees, "those who are being studied participate in the research process". For example, in an educational context, the teachers and pupils will not be regarded as subjects who are going to be subjected to some treatment devised by an outsider. Insofar as these groups accept responsibility for the execution of the research and the implementation of its results, action research may be characterized as democratic. In other words, action research is "participatory" and "collaborative" (Melrose 2001; Reason and Bradbury 2001; and Zuber-Skerritt 1996.

A researcher could assume the role of 'external researcher' or 'participant observer' in action research. Dickson and Green (2001: 245) regard an external researcher as "an active participant" in participatory research, "bringing his/her own philosophy, experience and understanding to the research". They add that the external researcher is "often a catalyst" in

enabling disadvantaged people to conduct research (2001: 246). My role was not one of an external researcher as I was involved in the process. According to McMillan 1996: 245), if the researcher is "a genuine participant in the activity being studied", then he or she is known as a participant observer. As participant observer, I observed the students, assessors, the activities and the physical aspects of the assessments. I provided information (*see* Spradley 1980) as the need arose during the assessments. Dickson (1997: 2) defined participatory action research as "an inquiry by ordinary people acting as researchers to explore questions in their daily lives, to recognise their own resources, and to produce knowledge and take action to overcome inequities, often in solidarity with external supporters". If the assessors or lecturers are to be regarded as 'ordinary people' with myself as the 'external support' and the oral assessments are deemed as 'taking action to overcome inequities', then indeed, we engaged in participatory research.

Participatory action research differs from other qualitative methods in the collaboration the researcher fosters with the participants (Linville *et al.* 2003: 210). Winter (2002: 144) agrees that an action research project relies for its effectiveness on creating collaborative relationships. Collaboration means the building up of democratic relationships between participants coming from different backgrounds, and having different expectations, needs and roles who involve themselves in a common project, and know that diversity is not a synonym of inequality (Perez *et al.* 1998: 250). In my research, I did not "train participants to be co-researchers themselves" (Linville *et* al. 2003: 210), but collaboration within my project occurred on two levels. Firstly there was collaboration between the participants and myself as researcher, and secondly between the participants themselves. As researcher I was not in a position of power over the participants and did not have to use my "expertise to resolve the problems and provide the 'right' answer" (Perez *et al.* 1998: 251). The diversity of the participants lends different perspectives to the project and it is also important to remember that they are coming in as individuals with different roles in the project and as stakeholders having different needs and expectations. This diversity as well as the diverse make up of the population, whether in terms of level of expertise or status, race, role (student, lecturer, assessor or researcher), gender, language differences, lends credence and colour to the project. Stringer (1993: 148) agrees that all educational research should be: democratic, that is, enabling participation of people; equitable, by acknowledging people's equality of worth;

liberating, by providing freedom from oppressive, debilitating conditions; and enhancing, by enabling the expression of people's full human potential.

THE STUDY: USING AN ACTION RESEARCH FRAMEWORK TO EXPLORE ASSESSMENT

My research did not follow a traditional or conventional model of action research as I did not seek to test out a 'solution' to a problem with my own class, but rather a problem in my community as a teacher. My study drew on the common elements shared by the models of Calhoun (1994), Kemmis (1990), Lewin (1952), Sagor (1992), Stringer (1996) and Wells (1994) as explained by Mills (2000: 18). The "area of focus" was identified, a system of assessment was devised and employed, this was followed by "collection of data" in the form of questionnaires, focus group discussions and the assessment sessions themselves. This data was analyzed and interpreted and "action" was taken to overcome the shortcomings noted. This then spiralled us back into the process, again and again where the structure of the assessments was refined each time by addressing the comments, concerns and criticisms of the participants until a structure and method of assessment was arrived at to the satisfaction of all the participants. The term 'spiral' is used, because in each round of the assessments, we had to go back to the 'drawing board' as it were, start all over again and work our way to the 'top'. Each of the different aspects (for example, the format of questions posed, number of candidates per session, time allocation, structure of the assessments) that needed redress had to be carefully examined and the necessary measures put into place. This revised method then had to be tested after the required 'action' had been taken. Data were then collected, collated and analysed which enabled critique of the method employed, and thus began the next phase. The assessments were conducted in three phases. Two rounds of individual oral assessments were conducted before participants were satisfied with the format. The third phase of the assessments was the group oral assessments.

In each round of the assessments, the written assessments were written one week before the oral assessments to ensure uniformity for each round. The questions for the written assessments were set by the same assessors that set the oral assessments. Both the oral and the written assessments in each phase or round, tested the same material, that is, the identical sections of the syllabus, and the questions had to be of the same level of complexity as well.

The three phases or rounds of assessments were as follows:

The first round of the assessments (Round One) which constituted the individual oral assessments were conducted at the University of Natal, Durban in the School of Life and Environmental Sciences. The subjects assessed were Microbiology and Health, Plant Biochemistry, Animal Ecophysiology and Plant Physiology. Shortcomings were noted and addressed in round two of the assessments.

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The second round of the individual oral assessments (Round Two) was conducted at the ML Sultan Technikon, Durban in the Departments of Health Sciences and Medical Sciences. The subjects assessed in round two were microbiology, Air Pollution, Epidemiology, and Environmental Pollution.

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The third round of the assessments (Round Three) constituted group oral assessments as the participants were satisfied with the format of the individual oral assessments. These group oral assessments were conducted at the ML Sultan Technikon, Durban in the Department of Health Sciences. The subjects assessed were Community Development and Occupational Health and Safety.

In the first phase, (round one) at UND of the written assessments (as in the oral assessments) students were given three questions totalling fifty marks, that is, a short question carrying 5 marks, the medium question 15 marks and the long question carrying 30 marks. This effectively meant that the student would need to provide the equivalent of two facts or points for 5 marks, two paragraphs, that is, six facts or points for 15 marks, and an essay with about twelve points or facts for 30 marks. In round two, students were given three questions totalling fifty marks, and in round three, they were given one major question with two sub-questions totalling fifty marks. To ensure that the same material was being tested, examiners set variations of the same question for the written and oral assessments. These questions were then moderated by the assessor who co-examined the oral assessments (and moderated the students' scripts in the written test). Students were informed that their total marks for the assessment would be calculated by adding their score for the oral (that is, their mark out of fifty as a percent) to their score for the written (that is, their mark out of fifty as a percent)

and then combined, by taking 50% of their oral mark and 50% of their written mark to make up their final mark.

SETTINGS AND PARTICIPANTS

Gaining Entry

In order to get participants for my study, I wrote to the Deans and the Heads of Department of Science at the University of Natal (Durban), University of Durban-Westville, ML Sultan Technikon, Natal Technikon, and Mangosuthu Technikon. I explained the aims of my research and the type of samples I was looking for. Responses were either very slow or nil. I therefore had to write to individual Heads again before I received responses. Many of the educators were unwilling to participate in my study because as some said, "*we barely have time to finish our syllabus, we just do not have the time to spare*", while others felt that "*implementing a new form of assessment will take a long time what with all the bureaucracy at our institution*". So, while educators agreed that they "*experience many problems with written assessments*" and that "*marking students' scripts is a nightmare*" because they "*battle with understanding*" they were not willing to "indulge" in a different method of assessment. Hence my quote from McNiff (*on page 98*) where the educators were content to teach "what appears on the curriculum" and were not willing to "educate" themselves by trying out a different approach to assessment.

The Dean of the School of Life and Environmental Sciences at the University of Natal, Durban invited me to present my case at the Faculty Board meeting and this is where four senior academics volunteered to participate in my study. I then initiated contact with the Departments of Medical Sciences and Health Care Services at the ML Sultan Technikon. This yielded success as a lecturer in Microbiology readily volunteered to assist. Three lecturers from the Department of Health Care Services also enthusiastically agreed to participate in my research.

I met with lecturers/examiners at the University of Natal as a group to discuss: aims of the research project; their role and involvement in the project; benefit of the project to the participants, students and assessment in general; processes and procedures to be followed;

sampling; administration of the assessments and collection and collation of the data. This discussion was held with the lecturers at the university first, as they were participating in round one of the assessments. This discussion was then held with the lecturers at ML Sultan Technikon well before the second round of the assessments.

All of the above lecturers spoke to their respective classes and identified the groups that would participate. I could not employ any of the statistical sampling techniques apart from requesting lecturers to select groups in accordance with Sekaran's table for determining sample size from a given population (1992) and I had to accept the demographics of the classes as they were. Winter (2000: 8) agrees that "the necessity for random sampling and other standard design features, which are features of quantitative research, also have little or no importance in qualitative research". Fortunately, lecturers acceded to my request of using one hundred percent of the student population doing a particular subject - this also assisted the lecturers to keep the assessments uniform for all their students taking a particular subject.

I then addressed each group of students on: the purpose and aims of the research project; explanation of their role in the research; benefit of the project to the participants and to students in general; procedures to be followed and consent for audio-taping. As a result of all these meetings, the population identified for my study was one hundred percent of the students taking a subject (*see* Sekaran 1992: 253) within the following departments: the School of Life and Environmental Sciences with three groups of second and one group of third year students at the University of Natal, Durban; Medical Sciences with a group of second year students at ML Sultan Technikon; and Health Care Services with three groups of second year and two groups of third year students at ML Sultan Technikon.

Participants

Students

No first year students/courses were considered for this study, because as a lecturer myself, I am mindful of the problems of adjustment, acculturation and language difficulties faced by first year students (*see also* Penny 1980). I did not want to add on the burden of a different type of assessment to their list. Only second and third year students/courses in Science

therefore participated in this study. Postgraduate students were also excluded in my study as oral defense of theses is widely practised and documented.

As an incentive to their students, the lecturers and examiners concerned, used the oral mark as part of the students mark for the year. This made the students take the oral assessments seriously. Consequently the student sample at the University of Natal was made up of one hundred and sixty one students, that is, thirty five second year and forty third year students. There were twenty male and fifty eight female students. Within the sample, one student was repeating second year and two students were repeating third year. The sample at the ML Sultan Technikon was made up of one hundred and fifty two students. This figure included those students that did the assessments more than once. There were sixteen second year and twenty seven third year students. Six students were repeating second year and eight students were repeating third year, while eight students did not indicate their year of study.

The Raters/Assessors

All examiners for the various subjects and their co-examiners formed the sample. There was a total of ten assessors, that is, six males and four females. This sample was made up of four lecturers, two senior lecturers, one professor, two associate professors and one medical technologist. In terms of years of experience at tertiary level, four indicated that they have between one and five years, two had between six and ten years, one had between eleven and fifteen years and two had more than fifteen years, while one did not indicate years of experience.

The assessors' participation in my study was totally voluntary. I was very grateful for their enthusiastic commitment to examining their own methods of assessment and for wanting to experiment with the alternate form of oral assessment that I was proposing. The examiners for each of the subjects 'chose' their co-examiners/moderators. In most of the instances, they elected to work with the assessors that ordinarily moderate their written assessments, except for the cases where their 'usual' co-assessors were not participating in this project. One external examiner participated in this project. She is the moderator of the written assessments for Microbiology and she was very keen to "*try out this method of assessment*" because she noted that students experienced "*particular problems when they enter the working*

environment. They just cannot engage in discourse relating to Microbiology. This is a real shortcoming that needs to be addressed". Given the fact that she only visited the institution on pre-arranged dates, it was very difficult for her to take time off work to participate in our many discussions that formed part of the project. However, she readily gave her input *via* e-mail or over the telephone so that they could be incorporated into the decisions taken.

Each of the assessors concerned was involved in their own research and teaching commitments at the time, but they readily collaborated with me on all aspects of my project. The assessors concerned then, were an integral part of my project, not just as examiners conducting an assessment, but they took on multiple roles. Collaboratively, we worked on the structure of the assessments, the assessment grid, mark allocations and questions for the student focus groups. They selflessly gave up their time to work on this project for the "*benefit of our students*", especially in the first round of assessments which took up a lot of lecture time, assessors graciously time-tabled the oral assessment sessions into their busy schedules.

INSTRUMENTS USED

The oral assessments were preceded by the written assessments. Questionnaires and focus group discussions were used to gather data about the assessments. Questionnaires were administered to the students (student questionnaire) and the assessors (examiner/co-examiner questionnaire). The questionnaires were administered to all examiners, co-examiners and students participating in my study to determine their responses to the assessment techniques used, their individual experiences, their attitudes and feelings and their biographical data.

The questionnaires (*Appendices H,J*) contained many open-ended questions while other questions required respondents to motivate, substantiate or explain their answers as such, my study utilised a qualitative method of data analysis. The purpose of my study was not to present quantitative research in its pure sense. However, throughout my dissertation, frequencies are presented to extend and deepen understanding of the data and to point out the significance of certain responses (Butler 2000: 90).

Focus group discussions were conducted with the students and assessors. Focus group discussions were held with the examiners, co-examiners and students in my study in addition to the questionnaires to "make observations about individual experiences, feelings, attitudes, perceptions, and thinking, using open-ended techniques of enquiry" (Brodigan 1992: 1). It was also aimed at assisting the participants to talk by minimising the possibility of misunderstanding and being misunderstood.

The Questionnaires

Student Questionnaire (Appendix H)

Each student was asked to fill in a questionnaire on completion of the oral assessment as the written assessment had preceded the oral in every instance. In the first round of assessments at the University of Natal, Durban, students filled in the questionnaire immediately after the oral and deposited them in the box before they left the room at the end of the session which led to very biased responses on the questionnaires. In the assessments conducted at the ML Sultan Technikon then, students were asked to return the questionnaires within a week of completing the oral.

The student questionnaire sought to gauge students' attitudes and feelings regarding the oral and mixed-mode assessments. Questions were posed in the following order: biographical data; the oral assessment and oral and written assessment. Students were not asked to complete a questionnaire after the group orals, as all these students had filled in a questionnaire for the individual assessments and I wanted students to express their thoughts and feelings orally in the focus group discussions to further expound the view being researched. Asking students to fill in more than one questionnaire would also probably have annoyed them. Focus group discussions were held with students after the group oral assessments.

Examiner/Co-examiner Questionnaire (Appendix J)

Due to the assessment sessions following each other closely, it was very difficult to get all the examiners and co-examiners together for a discussion regarding the individual assessments.

Questionnaires were therefore administered to them, which they could fill out at their own pace. The covering letter explained the aims of the research and guaranteed anonymity. Questions were posed in the following order: biographical data; oral and written assessments; the oral assessment and the student. Open-ended questions were essential to gather individual comments and responses. I did not want to force categories onto the respondents thereby limiting their answers. I wanted their responses to inform my study on an individual basis.

The Focus Group Discussions (Appendices M, N)

Focus groups have been used successfully in medicine (Morgan and Spanish 1984), in market research (Morgan and Krueger 1998), in media (Gamson 1998; Just *et al.* 1996; Morley and Brunson 1999) and in 1998, Morgan and Krueger collaborated academic with applied work in academic social science. Success in educational research with focus groups were recorded by Burdick 1986; Buckmaster 1985; Dehne, Brodigan and Topping 1990; Griffith and Kile 1986a, 1986b; Waters-Adams and Nias 2003.

A focus group is a small group interview on a specific topic (Linville *et al.* 2003: 211). My own use of focus groups grew out of a need to gauge the feelings of the participants about mixed-mode assessment, and especially the individual and group oral assessments. The best way, after all to learn about student problems, is to ask students themselves. As van Schoor and Lovemore (1995: 7) explain, "obtaining students' perceptions of the teaching and learning process is not merely an option anymore. The emphasis on meeting the needs of the users makes this a necessity". Since the participants, and especially the students came from different backgrounds and proficiencies in English, the focus group method was chosen because they are based on the "therapeutic assumption that people who share a common problem will be more willing to talk amid the security of others with the same problem" (Lederman 1990: 117). Suter (2000: 2) also found that "unlike other methods of data collection, focus group interviewing created conversational groups that, in turn, facilitated participant observation-like understandings".

Fontana and Frey (1994: 365) agreed that "group interviews can also be used for triangulation purposes or employed in conjunction with other data gathering techniques". I also hoped that the data from the focus groups triangulated with the data collected from the assessments and

the questionnaires would help foster a better understanding of what went well in the assessments and what needed revision. To this extent, focus groups were used lead by myself as facilitator. I did suggest that a student should be elected to facilitate each discussion, so that any form of cultural bias would be removed, but students were unanimous that they had interacted sufficiently with me to talk without fear of victimisation. Also, the fact that I did not lecture them in any of their subjects assured them that they had "*nothing to lose*".

Morgan and Spanish (1984: 260) regard the strength of focus groups as coming from a "compromise between the strengths found in other qualitative methods" like participant observation and in-depth interviewing, adding that "they allow access to a process that qualitative researchers are often centrally interested in: interaction". Melles (2004: 220) and Hutchby and Wooffitt (1998: 113-115) caution that western interview conventions are culturally specific and need to be considered when working with students of a different culture. Melles (2004: 221) adds that "focus groups have been used as a complement to surveys for course evaluation to explore reasons behind quantitative responses" (*see also* Bloor 2001: 11; Dreachslin 1999: 226; Wall 2001: 28). Linville *et al.* (2003: 211) agree that "focus groups have certain advantages that other participatory methods may not. Because the students give feedback in a group, they can build upon each other's answers ... and evaluators can gather a lot of information in a short time". Unlike one-to-one interviews, group discussion substitutes for the directive questioning which is part of most other approaches to the task of gathering information (Brodigan 1992: 1) and "the group potentially provides a safe atmosphere, a context in which the synergy can generate more than the sum of individual inputs" (Lederman 1990: 119).

To maximize the pool of information gathered from the discussions, a semi-structured method was used which as the name suggests, allowed for part of the discussion to be structured (where I asked questions from a prepared list) and for the other part to be determined by the flow of the discussion or the responses of the participants (*see Appendices M* and *N* for the 'prepared' list of questions asked). Schlebusch (2002: 2) describes the semi-structured interview as an interview where "structured questions" can be "followed up with unstructured, probing questions". The focus group discussions were therefore made up of pre-prepared questions and sub-questions which were prompted by the responses of the participants. If the semi-structured method was not used, the discussion would have merely

amounted to interviews with a group of students. Garavan and Murphy (2001: 283-284) noted that semi-structured interviews can avoid researcher preconceptions embedded in questionnaire categories. The semi-structured method allowed for 'live' interaction and active participation between myself and the group and between the group members themselves. This method allowed us to explore and expand on comments made, issued raised or controversies that arose. The semi-structured method allowed the discussion to come to life, it afforded us the opportunity to really *talk* to each other.

Thirteen focus groups were conducted with the students and two with the assessors. Students and assessors were grouped separately so that participants would be free to speak without fear of victimization (on the part of the students). Assessors too would be free to express themselves without having to fear that they may offend students or give away any "*insider information*". One discussion was held with all the assessors at the technikon and another at the university. This was done because slightly different processes were followed at the two institutions and also because it was very difficult to get a common time when everyone was available. Students were asked to group themselves so that they would be comfortable with their peers and they would feel free to talk. As Lederman (1990; 119) explained, "the presence of people of like-mind" makes it "easier for otherwise shy people to talk about their personal thoughts, feelings and experiences". In this way it was assumed that students would not join a group of students by whom they felt intimidated, whether they are just shy, or whether they feel insecure about the way in which they communicate or their proficiency in English. The groups were made up of a maximum of ten students each to enable me to talk individually with each student and as Brodigan (1992: 5) stated, "focus groups can produce desirable results when sizes vary between 4 and 12 participants".

The duration of the group discussions fluctuated between 60 and 80 minutes depending on the number of students in the group and also on some groups being more responsive than others. At first I tried to schedule the discussions during the students' breaks, but this did not work out, as some students did not attend saying that they "*had other things to do*" or "*other lectures to attend*". I then had to negotiate this time with the lecturers and the discussions were held during their lecture periods. Fortunately the majority of the students attended, although there were several instances where discussions had to be rescheduled because many students were not present.

Procedure used for the Focus Group Discussions

The assessors and I collaborated on the questions to be asked of the students during the focus group discussions. I initially drew up eight questions and then consulted with the assessors, inviting comments from them and asking them whether they would like to add any questions related to any issues on which they wanted feedback. After a few meetings, we settled on twelve questions for the students. I used the responses from the student focus group discussions to guide my questions asked of the assessors during their focus groups. A list of eight questions were drawn up for the assessor focus groups. The semi-structured focus group interview method allowed me to ask the questions on the prepared list and then ask sub-questions or related questions that arose from the student and assessor focus group discussions.

To encourage free and candid participation, participants were assured that their names would not be used in any way either in my correspondence with their lecturers or departments or in the write-up of my findings. Students were sceptical at the beginning because they were told that the discussions would be recorded and they felt that they would be identified by their voices. Again students had to be reassured that only I would be listening to the tapes. Student permission to tape was received in writing at the commencement of the project. For each focus group, a cassette recorder was placed in the middle of the table and tested. As I was facilitating the discussions on my own, I could not ask the student who was speaking to pause when I needed to put in a new cassette, I therefore simply noted down the respondents comments and put in a new cassette before moving on to a new question. In this way, I ensured that no data were lost. I could have asked the participant to stop speaking while I changed cassettes, but I was afraid that it would break the participant's train of thought and focus their attention on the fact that the discussion was being recorded. In each of the sessions, it was clear that participants were acutely aware of the recorder at the beginning of the discussion and would actually speak to it, by looking at the recorder. As the discussion grew and other respondents began to participate, they became less aware of the fact that the discussion was being recorded.

I opened the discussions by explaining the procedure to be followed and by explaining that there were no right or wrong answers. I encouraged students to be honest and candid in their

responses. This was followed by an 'icebreaker question' where participants were asked to describe their experiences with the assessments in a word or phrase. This allowed participants to share early in the discussions as they responded to each other. The paralinguistics used, for example, "*ooosh*", "*phew*" allowed them to relate to each other informally right at the outset of the discussion. After they concurred for a minute or two, the first question was posed. The format of the discussions was kept simple. As facilitator, I posed a question (*see Appendix M*) to a member of the group and this inevitably led to contributions from the others. As Lederman (1990: 120) so rightly said, the exchange of ideas in the group stimulates new thoughts which may never be mentioned in individual interviewing. Participants feel free to express their thoughts and feelings as they know that they can depend upon their peers for support. They tack on to what someone in the group says and discussion ensues. Even negative thoughts are easier to express when in the security of a group. Of course there is the possibility that group members may be reluctant to speak for fear of others listening and perhaps mocking them or for fear that confidentiality may be breached. The role of the facilitator is therefore critical in a focus group, where quieter participants have to be drawn out and members must be told at the outset that they must commit to keeping the confidentiality of the comments made in the group.

Although the use of video-recording equipment would have yielded a wealth of information (Penn-Edwards 2004: 1) as far as the participants' non-verbal reactions were concerned, I decided against it, because the participants had clearly demonstrated their trust in me and I did not want to intimidate them or violate this trust by creating an atmosphere that would induce performance and artificiality on their part. Also, video evidence cannot by any means be regarded as anonymous. The examiners and co-examiners were resistant to the idea of being filmed but did not mind the audio-recording.

STRUCTURE OF THE ASSESSMENTS

Written assessments preceded the oral assessments by one week in each case giving the examiners time to complete their marking and to enter their marks onto their mark sheets. The written and oral assessments were based on the same sections of the syllabus. Of course the material was tested differently, but for the purposes of this study, examiners had to ensure that the level of the questions as well as the format of questions asked were uniform for the

oral and written assessments. In other words, a multiple choice question format could not be used for the written assessments where short questions were used for the oral assessments.

Written Assessments

The written test was moderated by the same assessor who co-assessed the oral assessment. The test was written under the traditional test conditions which meant that during the test students were not allowed to ask for clarification from the examiner. In each instance, the tests were written one week before the oral assessments. These tests were then marked and moderated. Assessors were very mindful of the fact that there was no policy at their institution (both at the University of Natal and the ML Sultan Technikon) on oral assessment, and that any formal change in assessment would require a lot of rigorous paperwork and time. They were therefore adamant that the written assessments be left unaltered as they and the students were accustomed to. They did agree to pay careful attention to language issues, for example, ambiguity, use of simple words, jargon and writing in simple English when setting the written test papers.

Oral Assessments

Each oral assessment session was conducted in a venue which was equipped with a board, a board marker or chalk and a duster. Assessors took care to identify venues that had good lighting and were away from noise on the campus. Rosters were pinned up well in advance of the assessment and students had to write down their details in the time slot that they preferred to be assessed. Students had to regard this as an appointment to be assessed. All students and examiners consented to the sessions being audio-taped. There was unanimous consent because students also realized that they would have some recourse in the event of a query. This was after all their first experience with oral assessments.

PROCEDURE USED FOR THE ORAL ASSESSMENTS

In compliance with the theories of action research, the procedure utilized for each round of assessment will be discussed individually. This is done to indicate the changes introduced to the assessment procedure after each stage. Problems or concerns were identified from the

student and assessor questionnaires, during the focus group discussions from the participants themselves and from my own observations.

Individual oral Assessments: Round One (UND)

The first round of assessments conducted in the School of Life and Environmental Sciences at the University of Natal in Durban constituted four subjects as indicated in the table below.

Round One: Oral Assessments conducted at the University of Natal, Durban

SUBJECT	LEVEL OF STUDY	NO. OF STUDENTS
Microbiology and Health	2	73
Plant Biochemistry	2	50
Animal Ecophysiology	2	38
Plant Physiology	3	34

Oral assessments for the purposes of assessing competence in a language have been widely documented (as discussed in *Chapter One*), but as this was not the aim of my research, their methods or procedures could not be used to structure my assessments. In the absence of literature that could specifically direct my procedure to do the kind of oral assessment that I was proposing, the procedure followed in round one of the assessments was borne out of a careful mixture of information that was gained from the survey of overseas and local institutions and the procedure followed by Butler and Wiseman (1993) in their assessment of students from the Faculty of Law at the University of Queensland in Australia.. The reason for using Butler and Wiseman's study was that their objectives closely matched mine in terms of the assessment. They were also concerned with assessing knowledge of the content and not competence in English. Of course, Butler and Wiseman's method had to be further modified to suit my particular purpose, which is oral assessment in Science in South Africa.

Admittedly there was an element of bias in opting for the design of the oral assessment that I did, but in the absence of a model that could be emulated, I had to make some decisions on my own and I had to come up with a design that could be tested in the first round of the assessments. As Butler and Wiseman (1993) did, the examiners in each subject at UND, drew up a bank of questions for the oral assessments. "The banks were of a size to enable random selection of questions by the [examiners], with a view to ensuring that no two [assessments] were identical. In this way it was hoped to protect the integrity of each [assessment] by minimising or eliminating the risk of any student communicating the content of the examination to fellow students" (Butler and Wiseman 1993: 334). The questions were moderated by the co-examiner (for both the oral and the written tests).

During the pre-assessment discussions, assessors agreed that they would ask a short, a medium and a long question totalling 50 marks to ensure some kind of uniformity and so that they could get "*a fair idea*" of the student's knowledge of a particular section of the syllabus. "*Besides, that's how we test them in the written exams*" said one assessor. The question bank was therefore divided into three such sections with the short question carrying 5 marks, the medium question 15 marks and the long question carrying 30 marks. This effectively meant that the student would need to provide the equivalent of two facts or points for 5 marks, two paragraphs, that is, six facts or points for 15 marks, and an essay with about twelve points or facts for 30 marks. The assessors felt that students were accustomed to answering questions in the above manner for their written tests and that they would just need to "*transfer their skills*" for the orals. The assessors had to ensure that the level of complexity and type of questions matched the questions set for the written assessments because the marks would later be combined in equal weighting, that is 50% each of the written and oral mark to give the students's final mark.

In the discussions leading up to the oral assessments, assessors encouraged students to view their assessment session as "an informal chat". The purpose for doing this, was to 'put students at ease' so that they would be more relaxed and try to think of the assessment as a 'chat with their examiner for marks'. This however did not work, as students were very sceptical, "*if this is so casual, then why are you giving us marks?*" asked one student. Another added, "*yes, and why are you using the marks for our yearmark?*" The general feeling among

students was that we should not try to equate 'a chat' with 'an assessment', "*they are two very different things!*"

One month before the assessments, students were asked to fill in their names on a roster which contained all the details of each assessment session. Each session allowed a maximum of six students. Because the students were doing the assessments for the first time, I did not want to add to their anxiety by allowing the general public to attend. The number of candidates was therefore confined to six per group. Although some students expressed their reservations about being assessed with other students present, this was done to ensure transparency of the assessment process, in other words, so that students could vouch that the assessment was conducted fairly and that no individual was given preferential treatment above the others. Students were encouraged to ask their friends to fill in the roster with them so that they would be comfortable with the students in their assessment group.

On the day of the assessment, students presented themselves at the allotted time and venue. All the sessions started promptly, and after trying to put the students at ease by making small talk about the weather, the assessments or telling a joke, the examiner started each person's assessment by asking the student to talk about any aspect of the syllabus that they enjoyed or understood best - this was done to ease the student into the assessment and to reduce anxiety levels by asking them to start with something they knew well. The student was allowed to talk for a minute or so, and depending on how the student was fairing, the examiner or co-examiner probed for more information or asked follow-up questions.

The duration of the assessments was between ten and fifteen minutes and was determined by the assessors of a particular subject. Of course, they had to decide at the outset as to whether they wanted ten or fifteen minute sessions for their subject. We did not opt for the one hour oral sessions as we were doing oral assessments for the first time and did not want to add to the anxiety and pressure already imposed by the 'new' assessment. The examiners then divided the ten of fifteen minutes at their discretion, deciding on how they would ask the short, medium and long questions for a total of 50 marks. Questions were drawn at random from the bank of questions and follow-up questions were also posed. It was however not always possible to maintain the ten to fifteen minute time limit because in some cases

students required more help and/or probing and therefore more time to be assessed. The assessors did their best to maintain a conversational and informal tone during the assessments. Students and assessors used the board where necessary to illustrate their points further.

The assessors scored each candidate on the assessment grid. They also wrote down comments about the students if necessary. At the end of the session and after the students had left the exam room, the examiner and co-examiner conferred about the student's mark. The examiners first discussed what symbol, for example, 'A' (80% +), 'B' (70-79%), 'C' (60-69%) should be awarded to the student and they then had to decide what specific mark should be given by considering the categories on the assessment grid. The final mark allocated to the candidate had to be agreed upon by the two assessors.

In keeping with an action research approach, after the first round of assessments at the University of Natal, adaptations were made to address the following eleven concerns raised *via* the questionnaires and focus group discussions by the students, the assessors and from my observations. The first concern raised regarded the 'question bank' and the problems that arose from the use thereof. The compilation of a question bank in three categories, required a lot of work on the part of the examiners. Examiners felt that it was easier to just set a written test, whereas, the question bank required them to come up with a "*whole store of questions*". Because assessors drew from a bank, the question posed to the student, was basically the luck of the draw and students thought this was unfair as the questions were not standardized. They complained about the level and type of questions asked to the various candidates. Grouping of the questions proved to be a real problem for the assessors. They had to remember to ask the student a 'short', 'medium' and 'long' question so that they could arrive at a total of 50 marks per candidate and after a few candidates, this proved to be rather "*cumbersome*" and "*frustrating*" as they had to "*juggle many different thoughts and calculations in my head while the student was talking*".

'Time' was another point of contention. Fifteen minutes or more per candidate meant a lot of hours of assessment for the assessors. This led to them being exhausted at the end of the day. The assessors were scheduled to take a three to five minute break after each session to refresh

themselves, but where sessions overran the allocated time, assessors forfeited their breaks or opted to just "*stand up and stretch our legs*". There were also complaints about the unequal breakdown of time for each student. Some students were assessed for more than fifteen minutes which lengthened their assessment time and therefore the session. The other students who were assessed for a shorter period of time were very aggrieved by this as they felt that they were disadvantaged in terms of time. Also, the time spent on the 'short', 'medium' and 'long' questions differed from student to student because assessors divided the time at their discretion.

The 'open' structure of the assessments posed a serious problem for the participants. In terms of answering the questions, students were very unhappy about having to answer the question immediately without having any time to prepare a response. The fact that they were not given the questions in writing, made the students very uncomfortable as they are accustomed to the written mode of assessment where questions are in writing. They complained that they were not able to write down their thoughts or plan their responses on paper before answering. Not having the questions in writing or all at once, meant that students could not choose the order in which they would have liked to answer the questions. This meant that students had to answer the questions as they were posed to them. Assessors had to repeat questions when students did not hear the question posed or when they just needed to be reminded (for various reasons) of the questions asked – also because students did not have the questions in writing. Students were upset that they did not have the opportunity to go back to correct their mistakes or revisit unanswered questions before their session ended. Some of the students complained about having five other students present while they were being assessed (detailed discussion in *Chapter Five*).

Individual Oral Assessments: Round Two (MLST)

The second round of assessments was conducted in the Departments of Medical Sciences and Health Care Services at the ML Sultan Technikon in Durban in the subjects as indicated in the table overleaf.

Round Two: Oral Assessments conducted at the ML Sultan Technikon, Durban

SUBJECT	LEVEL OF STUDY	NO. OF STUDENTS
Microbiology	2	12
Air Pollution	2	13
Epidemiology	2	16
Environmental Pollution	3	34

Again, students were asked to put their names down on a roster which contained all the details of each assessment session, one month before the assessments. After analysing the questionnaires and focus group discussions of the UND participants, it was decided to schedule a maximum of three students for each assessment session. The number of students was reduced in this second round of testing from a maximum of six at UND, to a maximum of three at MLST, in an attempt to reduce the anxiety levels of the student, while still maintaining transparency.

The oral assessment was divided into two parts, a morning session and an afternoon session. This gave all the assessors concerned a long break between the two sessions. Also, the students were divided into the two sessions, so the students only had to wait for the duration of the one session leaving them free for the other session. Students had to wait in a room adjoining the assessment venue, so that contact between examinees would be minimised or eradicated thereby ensuring that students would not be privy to the questions asked of the others. The examiner compiled six questions in total, three for the morning session and three for the afternoon session. The assessors could decide whether they wanted to ask three broad questions or whether they wanted to break up their questions into a main question with sub-questions. Again, these questions had to be of the same level and type as the questions asked on the written test. These questions were moderated by the co-examiner. The work of the examiner in compiling questions was drastically reduced in this round of testing from compiling a bank of questions to just three questions per session. The questions asked were also therefore standardized for all the students. The examiners did not have to

search the question bank each time for a 'short', 'medium' and 'long' question as the questions were pre-determined.

On the day of the assessments, all sessions started promptly. After casual conversation with the students and trying to put them at ease by talking to students about a programme on TV, an incident in class, or something funny, each group was briefed on the procedure to follow, even though they had already been through a mock-oral in class as preparation for their oral assessments. The students had been informed that each student would be assessed for ten minutes, this reduction in assessment time, was an attempt to address the issue of the length of time that the oral exam takes. The breakdown of the *ten minutes* was explained to the students as follows: *two minutes* to prepare a response to the questions, *six minutes* to answer the questions in any order that they preferred, *two minutes* to recap or come back to any questions that they had experienced problems with, wanted to elaborate on, or wanted to change a answer to. Students could also use the last two minutes to pose questions to the examiners. During the last two minutes of recap, the following candidate was given his/her question and thus began the next student's preparation time.

The examiner gave the first student a choice of question 1, 2 or 3 without disclosing to the student what each question entailed. This was merely an attempt to ensure fairness, so that the student would not accuse the examiner of giving him or her a difficult question. Students were given writing material so that they could make brief notes. All the questions were typed and handed to the student for constant reference throughout their assessment.

A bonus to doing the assessments in the same department, was that students were exposed to oral assessments at least more than once as they took different subjects with the same lecturers involved in the project. As participant observer, I attended every assessment session (this ensured uniformity in the examining panel for each student) and subtly kept time for each student so that the time-keeping did not pressurise them in any way. We maintained the ten minute duration for each candidates' assessment so that neither the assessors nor the students were disadvantaged because of discrepancies in time.

After the assessments at ML Sultan Technikon, the only concern that dominated both the questionnaire and focus group discussion analyses was the fact that the oral assessments were

still time-consuming. Students were satisfied with the structure of the assessments because of the specific time frames built into the structure which meant that they: were given the *questions in writing* so that they could refer to it during the assessment; were given *time to plan* their answers, to *write down* their thoughts, to answer the questions in any *order they preferred*, and they could *come back to unanswered questions* at the end. They were pleased that students were asked *the same questions*. Assessors agreed that asking the same questions (and doing away with the assessment grid) meant less preparation for them and also that the questions asked were uniform. "*It also took away the stress of looking for questions from the bank*". Triangulation of the data from my observations and from the assessors' and students' feedback, affirmed that the 'closed structure' of the assessments in round two meant "less stress" and "uniformity" for the assessments. The third round of testing therefore sought to address concerns raised regarding the resourcing issue of time. Since individual oral assessments takes time, I sought another alternative, which was the group oral exam.

Group Oral Assessments: Round Three (MLST)

The third round of the assessments were conducted in the Department of Health Care Services at the ML Sultan Technikon in Durban by the assessors who were very keen to refine the process of the assessments further.

Round Three: Group Oral Assessments conducted at the ML Sultan Technikon, Durban

SUBJECT	LEVEL OF STUDY	NO. OF STUDENTS
Community Development	3	34
Occupational Health and Safety	2	43

As Boe (1995: 5) explained "the group oral exam works very effectively. It brings in both the cognitive and affective domains. It provides for individual input, reflections and verification and inter- and intra-group support". The group oral was based on an adaptation of the focus

group interview method (*see* Brodigan 1992; Buckmaster 1985; Burdick 1986; Dehne *et al.* 1990; Griffith and Kile 1986a, 1986b; Lederman 1990; van Schoor and Lovemore 1995). The focus group interview "is based on the therapeutic assumption that people who share a common problem will be more willing to talk amid the security of others with the same problem" (Lederman 1990: 117). Although reference is made here to 'a common problem', I did not use the focus group discussion technique to elicit student responses about a problem, but rather, I adapted the techniques to assess the students in a group so as to reduce anxiety and to provide some form of security for the student.

Also, students largely chose to group themselves with peers who shared a common first language, thus giving the group a degree of homogeneity which contributed to their security. Being assessed with fellow first or second language speakers only, gave the students a sense of comfort that their peers would not be judging or criticising their use of English. As explained by Lederman (1990: 19) in the focus group method "the group rather than the individual is interviewed. The group potentially provides a safe atmosphere, a context in which the synergy can generate more than the sum of individual inputs... the presence of people of like-mind making it easier for otherwise shy people to talk ...". Students welcomed this method as they sought comfort in the knowledge that their peers could assist them. Students provided verbal and non-verbal cues to assist each other. This method therefore succeeded also in encouraging teamwork, interaction and learning from the assessment process and each other, where the examiners played the role of facilitators so that no student dominated the session or was left out of the assessment. Quiet students had to be skilfully drawn into the assessment while the extroverts had to be subtly reminded to allow the others an opportunity to answer. This 'security' helped to reduce anxiety levels as well. In her study, Boe (1995: 6) found that in spite of the realization that the group oral assessment technique yielded one grade for all (unless there was an unusually unresponsive group member), anxiety was absent. In my study, though, students were scored individually on the assessment grid (*Appendix* I) as each student's oral mark had to be added to their written mark. So, although the students were assessed in a group, the assessors filled in marks for each category on the assessment grid, as they did in the individual oral assessments. Again, both assessors scored the students on the assessment grids for purposes of validity.

As was the case for the individual oral assessments, the written assessments for the group oral assessments were conducted one week before the orals to give the assessors time to mark and enter scores on their mark sheets. The assessors in my study did not want to afford one mark for a group effort for either an oral or a written assessment and I needed them to combine the written and oral marks per individual on a 50/50 split so the individual assessments (within the context of the group assessment) suited the assessors and myself.

The group orals were set up with six students per session. A smaller number of students per group would have negated the purpose of a group oral. Students were asked to choose the members of their group and to fill in their details on a roster one month in advance of the assessments. The assessments were again divided into a morning and an afternoon session. Students for each session were again seated in a room adjoining the assessment venue so that they would have minimal or no contact with the students that had already completed the assessments, thereby ensuring that the students awaiting assessment were not privy to the questions for that session. The examiners drew up two sets of major questions with sub-questions and this was moderated by the co-examiner, so this effectively meant that the examiner only had to compile one question per session per day.

Each session lasted twenty five minutes. The questions were typed and handed to the students. Students were given writing material to make notes. The allotted twenty five minutes gave each group *four minutes* to discuss the questions as a group, *three minutes* for each student to answer the questions in any order that they preferred (of course, this was the total talk-time allocated per student, it did not mean that the student had to talk for three minutes in a stretch) – this time had to be guided by the examiner, and *three minutes* to recap, ask questions or to address unanswered questions. This effectively reduced the assessment time considerably from *ten minutes per student* to *twenty five minutes per six students.* This meant that a class of twenty four students could be assessed in one hundred minutes (ten minutes over one double period) with the group oral assessments as opposed to two hundred and forty minutes (three double periods) with the individual oral assessments.

LIMITATIONS IN THE DESIGN OF THE INSTRUMENTS USED

The Questionnaire

There were definite drawbacks to using questionnaires, the biggest problem being that I could not 'talk' to the respondents. I could not ask follow-up questions when the respondents wrote interesting or controversial points. I could not ask for clarity when the responses were unclear. Also, the respondents sometimes omitted a question, because they did not understand what was required of them or how they should answer the question and I could not provide the clarity or interpretation sought. I could not assist respondents who misunderstood or misinterpreted the questions. Students were sometimes reluctant to complete and return questionnaires as it demanded extra effort and time on their part.

The Focus Group Discussions

Re-scheduling of the discussions took up a lot of time, as it meant that I had to negotiate with students and lecturers each time that a discussion had to be postponed. I had to understand that both the assessors and the students had to attend to other lectures, assessments and their personal lives, so, where there was poor attendance or participants asked for a discussion to be re-scheduled, I had to oblige. After all they were putting in their time into this research project as well. We had to work in collaboration and co-operation. The discussions were audio-taped and proved to be a valuable resource in collecting candid responses from the students and assessors, but this was also a very costly exercise.

The Oral Assessments

Recording of the oral assessments proved to be very expensive. Apart from the financial cost, the transcription of the tapes also demanded many hours of concentration. Physical external interferences, like noise or a student speaking softly or speaking away from the microphone, provided a real challenge in transcribing the tapes.

SOME ISSUES OF VALIDITY AND RELIABILITY, CONSISTENCY AND COMPARABILITY

As Lincoln and Guba (1985: 290) rightly ask, "how can an inquirer persuade his or her audiences that the research findings of an inquiry are worth paying attention to?" To answer this question, they (Lincoln and Guba 1985: 290-300) say that in qualitative paradigms, the terms "credibility", "neutrality" or "confirmability", "consistency" or "dependability and applicability" or "transferability" are to be the essential criteria for quality, while the terms "reliability and validity" are essential criterion for quality in quantitative paradigms. Lincoln and Guba (1985: 300) use "dependability" in qualitative research which closely corresponds to "reliability" in quantitative research. They further emphasize "inquiry audit" (1985: 317) as a measure which might enhance the "dependability" of qualitative research. Clont (1992), Hoepfl (1997) and Seale (1999) endorse the concept of dependability with the concept of reliability in qualitative research, which can be used "to examine the process and product of the research for consistency" (Golafshani 2003: 601).

The written and spoken responses of the participants are presented verbatim throughout my dissertation. As O'Halloran said, "the actual practice of recording and transcription is fundamental to examining any sort of talk-in-interaction". While the verbatim transcriptions allowed for interpretation, they ensured that no researcher or any other source of bias tainted the responses. I was acutely aware of imposing my interpretations on the comments (Mehra 2002: 16) or contributions made by the participants in this study. As Chenail (1997: 2) cautions, "when the richness of our curiosities meets the richness of qualitative data, researchers can easily become overwhelmed with the choices they have to make". Students were scored by a minimum of two assessors and these results were recorded by the assessors themselves without any interference or influence from myself as researcher. I also did not influence their interpretations of the data or their choice of material to be tested. I was especially mindful that my role as participant observer would allow me to be a part of the process without influencing the data. It must be borne in mind that in any form of assessment (not just in research) it is important for the assessor to draw valid inferences about the students' learning. The written forms of assessment on their own do not really allow valid inferences about the ESL students' learning because of the limiting influence of language. If a student cannot express an answer clearly in English, this could result in the answer being

marked wrong as students are not consulted when their scripts are being marked. In oral assessment on the other hand, the assessor would be able to ask the student to rephrase or explain the answer and the assessor would be afforded an opportunity to follow the students' train of thought.

According to Winter (2000: 4), validity is "not a singular acid test that can be applied to the research process as a whole. The validity measure can be applied differently depending upon the researcher's beliefs as to what stage of the research process needs validation. Such an approach may perceive validity as referring only to measurement, observers, scores, instruments, relationships between scores or observable variations, rather than to the whole research process". The concept of validity in qualitative research is described by different terms such as quality, rigor and trustworthiness by Aguinaldo 2004; Baker *et al.* 1993; Davies and Dodd 2002; Lincoln and Guba 1985; Mishler 1990; and Seale 1999. Gipps (1995) and Moss (1992) suggest that because assessment conditions are not fully standardized, the many statistical approaches used to evaluate reliability in standardized tests are simply not appropriate.

> In any case we no longer conceive of 'accurate' measurement and 'true scores'. Where traditional reliability measures are not appropriate we need to drop the term reliability and instead use, I suggest, comparability, which is based on consistency. Consistency leading to comparability is achieved by assessment tasks being presented in the same way to all pupils assessed; assessment criteria being interpreted in the same way by all teachers; and pupil performance being evaluated according to the same rubric and standards by all markers (Gipps 1995: 171).

Separate protocols were used for the individual oral assessments at UND and MLST and for the group oral assessments at MLST detailing how the assessments were to be conducted so that the assessment tasks were "presented in the same way" to all the students in each round. The written assessments were conducted in a uniform way for the students, with the content, duration, invigilators, markers, moderators, rules and conditions of the test kept constant for each round of the assessments.

The "assessment criteria" was detailed on the oral assessment grid and assessors were trained in scoring the candidates using the grid. When reservations were expressed after the pilot study, the grid was revised until all the assessors were satisfied that they were able to score students "*fairly*". The written assessments used marking memoranda which specified exactly where and how marks were to be allocated. Assessors had to follow the marking memorandum strictly so that standards could be maintained. Marking was standardized by having one assessor mark either a whole question or section or the whole script throughout a batch of assessments for each round at UND and MLST. Moderation of these scripts followed the same route. Assessors also felt that the use of the grid and the memorandum ensured that they "*maintained standards*".

Winter (2000: 6) says that "within the quantitative definition, an account may be judged 'valid', 'replicable' and 'stable' on the merits of its generalisability", that is, the phenomena can be "applied to all of the subjects or wider and similar situations", in other words, "common to all". Winter (2000: 6) adds that "it is likely that a 'generalisable' statement, whilst relating to all those to whom it is applied, may not actually describe the phenomena of any single case with any accuracy, in the same way that a mean average score need not be the same value as any of the numbers of which it is an average". So, while 'internal' and 'external' validity (Maxwell 1992: 294) are important for quantitative research, internal validity applies to qualitative research because it "concerns itself with the meanings and experiences of the 'whole person' and localised culture" (Winter 2000: 6). She adds that "external validity is often of no importance to qualitative research and the attempt to achieve it can seriously hinder its overall validity". To this end, Moss (1992: 250; *see also* Deale 1975: 21) advocate that,

> "we must move away from a sampling model of measurement towards a performance model where the quality of performance and the fairness of scoring are crucial but where the replicability and generalisability of the performance are not. After all, in order to replicate results in an oral or written test, exactly the same questions would have to be administered to the same students under physical, psychological and environmental conditions"

This is certainly difficult to achieve, for even if we can duplicate some of the conditions, other factors, like, for example, the psychological conditions could skew the results. So,

particular attention was paid to the training of the assessors in using the assessment grid and scoring the candidates to ensure "fairness of scoring". Assessors were kept constant, that is, the candidates were assessed by the same assessors throughout a session so that the standard was maintained. Regular breaks were scheduled so that fatigue or hunger did not impair the assessor's judgement. The administration of the assessments was refined further in the MLST assessments to ensure that assessors were given sufficient breaks after problems were noted in the UND assessments.

"Validity in qualitative research, relates to whether findings in your study are true and certain. 'True' in the sense of your findings accurately reflecting the real situation. 'Certain' in the sense of your findings being backed by evidence. 'Certain' means that there are no good grounds for doubting the results, ie. the weight of evidence supports your conclusions" (Guion 2002: 1, *see also* Denzin 1978). Mathison (1988: 13) believes that "triangulation has risen as an important methodological issue in naturalistic and qualitative approaches to evaluation" as a means to "control bias and establish valid propositions because traditional scientific techniques are incompatible" with qualitative research (*see also* Knafl and Breitmayer 1989). Winter (2000:11) concluded that "validity relates to the correlation of research methods and purposes of the research, rather than any universal or standardized test or procedure" (*see also* Maxwell 1992: 283), in other words, the means by which validity is achieved, is "different for each methodology".

Data Triangulation

"Constructivism values multiple realities that people have in their minds. Therefore to acquire valid and reliable multiple and diverse realities, multiple methods of searching or gathering data are in order" (Golafshani 2003: 604). He added that "engaging multiple methods of data collection such as, observation, interviews and recordings will lead to more valid, reliable and diverse construction of realities". Barbour 1998; Hammersley and Atkinson 1990; Healy and Perry 2000; Johnson 1997; and Patton 2002 advocate multiple data sources for triangulation which is essentially a test for improving the validity and reliability of research of findings. Cresswell and Miller (2000: 126) define triangulation as "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study". The principal aims of triangulation

according to Massey (2004: 2) seems to be to "corroborate one set of findings with another; the hope is that two or more sets of findings will 'converge' on a single proposition". According to Guion (2002: 1), there are five types of triangulation that qualitative researchers can use to check and establish validity in their studies, and they are: data triangulation, investigator triangulation, theory triangulation, methodological triangulation, and environmental triangulation (*see also* Mitchell 1986). She goes on to explain the different

types of triangulation as follows (2002: 1-3): data triangulation involves the use of different sources of data/information; investigator triangulation involves using several different investigators/evaluators in an evaluation project; theory triangulation involves the use of multiple professional perspectives to interpret a single set of data/information; methodological triangulation involves the use of multiple qualitative and/or quantitative methods to study the program; and environmental triangulation involves the use of different locations, settings and other key factors related to the environment in which the study took place, such as time of the day, day of the week or season of the year.

Five main sources of data were generated in my study, *viz.*: transcriptions of the audio-tapes and field notes of the assessment sessions; transcriptions of the audio-tape recorded focus group discussions with the students and the assessors; and the written responses from the student questionnaires and the assessor questionnaires. As Guion (2002: 3) said, a researcher needs to use "one of these methods, whichever is most feasible and appropriate, to determine whether your findings are valid (true and certain)". Since my research provided such a wealth of data where different perspectives were examined on the same issues or "the same variable or phenomenon" (Research Design 2004: 3), I decided to use data triangulation to determine validity in my study. The five sources mentioned above, provided the data for triangulation in my research. In working with the data, I had to transcribe all the audio-tapes of the assessment sessions and the focus group discussions. In the absence of a transcriber and the necessary funds to acquire one, coupled with the volume of data gathered, and the need to preserve anonymity, I did the transcriptions myself. This entailed many hours of concentrated work. Although external physical interferences, like noise or poor audibility, sometimes made transcription difficult, I managed to transcribe the tapes verbatim thereby preserving the authenticity of the participants' responses.

Training of the Assessors

Allison and Katona 1992; Dykstra-Pruim 1997; Grant 1996; Heywood 2000; Hill 1984; Joughin 2000; Rowland-Morin *et al.* 1991; Saville and Hargreaves 1999 and Thomas *et al.* 1992 agree that once assessors have been selected for the oral assessments, they must undergo training as specific skills are required for the administration of the assessments and that this training is essential to ensure reliability of the assessments.

Two of the assessors at UND, are formerly from Italy and remember very clearly their own experiences of the oral system of assessing students. They volunteered to assist in training the other assessors for the oral assessments. The training programme included the following: Conduct during the assessments/discussion of appropriate verbal and non-verbal reactions and responses to candidates: assessors were given a protocol for each round of the oral assessments (*Appendices E,F,G*) to ensure that all assessors understood what was expected of them and how they should conduct themselves during the assessments (*see Figure 4*). Saville and Hargreaves (1999: 45) also provided their examiners with an "interlocutor frame" to follow whilst administering the examination.

Figure 4: Protocol for the Oral Assessment (Excerpt from Appendix E)

To start the session:

1 Smile, greet the students
2 Introduce yourself and the co-examiner. Explain **very** briefly (as this would have been done in class before) how the assessment will proceed.
3 Call/start with the 1st student (who will answer from his/her seat)
4 Ask the student to talk about his/her favourite section of the course/syllabus (the sections you want to test) or a section of the course that they understood best, ...
5 Start asking questions when the student has eased him/herself into the situation
6 Ask follow-up questions
7 As you ask questions, do a mental calculation or write down that you've asked a short, medium and long question to total 50 marks. Try not to write too much while the student is talking as this will make the student nervous, and it will become difficult to maintain a conversation
8 Allow the co-examiner to ask some of the questions AND to help you to re-phrase questions/instructions where necessary - so that s/he is not regarded as an "observer" or "intruder" and students don't get nervous
9 Give students a chance to think about their answers before responding (decide on a standard number of minutes/seconds between the moderator/co-assessor and yourself)- if after that time, no response is forthcoming, start probing.

10	Encourage students with your non-verbals, pay attention to your facial expressions - look encouraging. Do not frown, scowl or look bored all the time. Also, make encouraging sounds like: uh huh; well done; that's great; fantastic; I like that; go on (encouraging them to say more)...
11	If the student says something wrong, for example: "okay, let's look at this differently"; "... what about..."; "let's backtrack a little"; ...
12	If it is obvious that the student absolutely does not know an answer, move on to something else, so that there is no uneasy long silences or wastage of time.
13	After you've asked all the questions/end of the student's turn, (if they couldn't answer any of the questions) ask them if there's any question they'd like to go back to.

The protocol for the assessments in my study, specified details regarding the administration of the assessments (*see Figure 5*).

Figure 5: Protocol for the Oral Assessment (Excerpt from Appendix E)

In preparation for the oral exam:
Please put up a roster with the **day;date and time slots for each session**, (and of course other relevant details regarding the assessment) eg:

SESSION 1: MON. - 20 August 2001 08:05 - 11:05

		Surname	First Name/s	Reg. No.
1	08:10-08:25			
2				

You may decide to have a 5 min or 3 min gap before examining the next candidate - the times must be uniform and the time-slots must be indicated on the roster.
Students must fill in their names on the roster - they can therefore plan/determine who will be in the group/session that they're being assessed. This will also help alleviate the problems of clashes, because students will not choose times in which they have clashes.
Students must be cautioned that once they put down their name/details on the roster, they are bound to that time-slot and they must regard it as an appointment to be assessed. Lecturers must confirm dates and times timeously with students.
Students will have to be informed about the format of the oral exam, which is as follows:
1 The session will start on time. Students must be present at least 5 mins before the start of the session - they will not be allowed to enter once the session is in progress . If they're late, they will have to wait outside and you can call them into the room after all the candidates have had their turn - they will have been allocated 15 mins on the roster.
2 Each candidate will get 15 minutes - not more or less. It might happen though, that some candidates may know their work so well that they will finish before the allotted time - this is perfectly OK. We cannot allow anyone extra time.
3 The candidates will be scored on a grid provided (this must be shown to and discussed with students prior to the assessments) [and student's marks/performance will be discussed at the end of each session (while it is still fresh on your minds) when the candidates have left the room. The examiner and moderator will have to reach consensus on each student's overall mark].

4 Explain why the session is being taped - ie. a) for transparency/for the students' benefit in the event of a query and a record of the proceedings and
b) for research purposes.
Ensure that all consent forms are signed before the assessments.
5 Convey to the students that they should view this/the session as an informal chat and as an opportunity to learn. They should feel free to talk about what they have learned and to share their ideas - that not being able to answer a question or two must not be regarded as a tragedy. It is an opportunity to learn and to share ideas.
6 Inform students that they must feel free to illustrate their answers on the board (please ensure that there is a board marker/chalk and eraser/duster in the room).
7 Impress upon them that their language skills/competencies are not being assessed.
8 Impress upon them that they must seek clarity or ask you to explain or re-phrase if they do not understand what you're asking/saying - that they must feel free to talk to you/to ask for clarification AND **that they will not be penalised in any way for seeking clarity**.
9 Emphasize that when you or the co-assessor asks them to re-phrase or explain something/seek clarity, it does not mean that you want to intimidate them or make them feel awkward, but rather that you want to maximise their opportunity of performing at their optimum. Explain also that they do not get this opportunity to explain themselves (until the examiner understands) in the written exams and thast they should therefore look at this positively.

I was hesitant about being too prescriptive and I was afraid to offend any of the assessors by giving them such detail which could be construed as an insult to their professional capability. I therefore met with all the assessors before drawing up the protocol. They welcomed the idea of a detailed protocol especially since this was their first experience with conducting the oral assessments. The protocol was revised after each round of assessment so that new strategies could be incorporated and amendments could be made to address problems encountered. Discussions were held on *different scenarios* which focused on possible situations or scenarios that could arise in an assessment situation. Meetings were also held after each set of assessments to discuss any issues that may have arisen during the assessments. This allowed assessors to talk about their experiences and also served to inform the other examiners about possible problems that they could encounter and strategies that they could use in their assessments.

Assessors were trained in the *scoring of candidates*. Rowland-Morin *et al.* (1991: 171) were particularly concerned about the effect of specific factors like dress, gender, appearance and the quality of responses on student scores and suggested that faculty members be trained and made aware of subjectivities in this regard (*see also* Wigton 1980). Mock oral sessions were conducted with students where particular attention was paid to how assessors scored

candidates especially in relation to the factors mentioned above. Fortunately, assessors were so overwhelmed by the whole experience of assessing their students orally for the first time, that their focus was mainly on conducting the assessments properly by assisting students through the whole process and on learning themselves. Nonetheless, possible problem situations were discussed. If I had been working with assessors and students who were experienced with oral assessments, the outcome may have been very different.
A detailed assessment grid *(Figure 6 on page 141)* was used for the oral assessments which dictated that the assessors score students on specific categories or criteria and not on their overall impression of a candidate. In other words, the assessors had to score all candidates on the same criteria. Dykstra-Pruim (1997: 17) agrees that "by relying on pre-determined, specified criteria, both students and instructors can feel that the grading is relatively objective and not solely left to the judgement or pre-judgement of the evaluator". Each criterion on the grid was explained with examples so that assessors would be clear on how to score the student responses without allowing misinterpretation or their own interpretations or perceptions to influence their understanding of the criteria, and thus, their rating or scoring of the candidates.

Following Allison and Katona's (1992: 338) practice where they held examiner meetings to facilitate understanding and agreement about which criteria to use and how much weight to give to each category, numerous meetings were held with the assessors before a final assessment grid was decided upon. Thereafter, assessors were trained on mark allocation using the grid during the mock oral sessions. Assessors benefited tremendously from the training as they felt "*more prepared and confident*" to conduct the oral assessments. They appreciated the fact that they were "*trained in the different aspects relating to the oral assessments*" and that "*problem situations and triumphs could be discussed*" at the regular meetings held. "*It wouldn't have helped the situation any if we were floundering in front of our students*" said one grateful examiner. It was encouraging that assessors asked questions when they did not understand and that they readily assisted each other. Discussions flowed freely, hypothetical problem cases were posited and discussed and we all benefited from the experience and expertise of the educators present. The collaborative efforts of the assessors went a long way in ensuring the success of the training sessions.

The Oral Assessment Grid

According to Messick (1992: 2), "validity, reliability, comparability, and fairness are not just measurement issues, but *social values* that have meaning and force outside of measurement wherever evaluative judgements and decisions are made". Mislevy (1994: 22) says, this is where test theory, comes in. He adds that "it means defining what we wish to accomplish, specifying what we need to know about students to achieve it, and constructing a framework in which we can determine how well we are doing". The oral assessment grid was designed in collaboration with the assessors from UND and MLST. "*What exactly do we want to assess?*" was the question on the table. In other words, we agreed that we wanted to test knowledge and that we were not interested in the student's language proficiency, but we needed to work out "*how do we assess knowledge?*" After much discussion, deliberation and a few assessment grids later, we all agreed that in order to ascertain whether a student knew his or her content, was to score students on three categories, the first being, how knowledgeable they are, in other words – do they have good background knowledge of the section being tested? Do they know the theory? Do they have adequate information about the subject matter? The second category proposed was, their integrative skills, that is, are they analytical and critical thinkers? Can they apply concepts or use prior knowledge to forecast potential problems and seek solutions, in other words, do they have problem-solving ability? Do they demonstrate clear reasoning? The third category was, how logical they are – do they present their information in a logical order? Can they make logical deductions or draw inferences from information presented?

There was consensus among the assessors that the above categories would "*pretty much cover it*" and that "*if one wants to determine whether a student knows his stuff, one would look for these elements before making a decision*". *Figure 6 (overleaf)* shows the oral assessment grid that was used to score candidates. It must be noted here that after the first round of assessments, assessors only wrote comments where they felt it was "*absolutely necessary*", if there was "*something about the candidate or his or her presentation*" that they needed to remember. Also, if they had given a candidate "*a particularly high*" or "*a very low*" score, they deemed it necessary to write down their reason/s for giving the candidate the score that they did, so that they would be able to justify or explain their scoring in the event

of a query. As one assessor said, "*after assessing thirty students, memories of the first student become hazy*".

Figure 6 - Oral Assessment Grid

Date : _____
Subject : _____ Level of study: ___
Examiner : _____
Co-examiner : _____
****
STUDENT NAME : _____
REG. NO : _____

** **EXAMINER/CO-EXAMINER, PLEASE NOTE**: THE STUDENT MUST BE GIVEN A **MARK OUT OF 5** FOR **EACH CATEGORY**. The second column merely shows the weighting of the marks.	stud's mark: /5	Weight	stud's mark x weight
Knowledgeable eg. good background knowledge; knows theory; good basic knowledge; student has adequate information about the subject matter.		5	
Integrative skills - Critical thinker eg. analytical; has problem-solving ability; able to demonstrate clear reasoning + - Application of concepts eg. can use prior knowledge to forecast potential problems/solutions		4	
Logical eg. student presents information in logical order; arrives at a logical conclusion or can make logical deductions and/or draw inferences from the information presented		4	
Prompting eg. student needs little prompting to arrive at a conclusion, make deductions or draw inferences; student needs little prompting to provide answers to questions asked		2	
Presentation eg. student speaks clearly; can be easily understood; articulates/communicates thoughts and ideas clearly		2	
TOTAL	25	17	

Comments:_____
_____

The next step was to assign marks to the different categories so that the assessors would be able to put down scores on the grid for each candidate. Again, many interesting combinations were put forth. Eventually, we all agreed to give the student a mark out of 'five' and to multiply this mark by a weight so that categories which were 'more relevant' could be assigned a higher score. One may wonder then, why the 'more relevant' categories were not just given a higher score on the grid, for example, twenty marks for 'knowledgeable', fifteen for 'integrative skills' and another fifteen for "logical' to total fifty marks. The reason for this is that it would take a longer time to decide on the mark to be allocated if the different categories were assigned different or higher scores. Assessors would have to very quickly work out percentages mentally for each category for each candidate either while the candidate is talking (which means that the assessor may not hear what the student is saying) or they could work out the percentages beforehand and simply scroll down the page each time they had to score a category (again missing out on what the student is saying). Having to decide on a mark for each category out of a score of 'five' meant that the assessors would be able to work out the scores very quickly and could later multiply this mark by the weighting to arrive at a final mark for each category and subsequently the students' final score. Sugrue (1994: 44) agreed that "each point on such a scale should be defined in terms of the specific elements that need to be present in the student's response". Brief explanations of each category was therefore given on the grid to remind the assessor of what to look for, and detailed explanations followed in the training sessions of the assessors in using the grid.

Initially, the last two categories on the grid, *viz.* 'prompting' and 'presentation' were omitted, because I maintained (and the assessors agreed) that we were not interested in students' proficiency in English but that we wanted to determine their knowledge of content. After the pilot study at UND, two of the assessors admitted that "*it is difficult to ignore presentation*". One of them said that if a student "*struggled to present the answer clearly*" it influenced the mark she gave for the 'logical' or 'integrative skills' category because "*otherwise it would be difficult to distinguish between a student who has clear reasoning ability and one who doesn't*". The other said, "*it is the first time we're doing this. It will take a while and lots of practice before we're able to separate presentation and the effect that probing and prompting has had on the students' overall performance*". He went on to add, "*I honestly believed that I would be totally objective and clear in my scoring but I have to admit that it did not happen. How else could I reward a student for being really clear in his arguments as opposed to a*

student who just waffled his way through it all. I mean, a student who knows but just cannot deliver the goods? I guess I failed the test!"

Being human, the assessors are susceptible to certain biases and would probably be influenced by a candidates' presentation of answers (*see* Rowland-Morin *et al.* 1991:171). To ignore this factor would be irresponsible. For this reason then, 'prompting' and 'presentation' were included on the grid from the first round of the assessments at UND with a very low weighting of 'one' each. The assessors could then score the student in the 'presentation' category, get the language factor out of the way and proceed with the important task on hand, which was, to assess knowledge of content. If assessors have to prompt students a lot to answer, they may be negatively influenced whereas this prompting could have been brought on because of the student's nervousness or lack of proper instruction on the part of the assessor as to how the question should be answered. By allowing the assessors to score this category separately, it enables them to dispense with the issue of 'prompting' and to concentrate on the student's knowledge of the content. Ironic as it seems, it was hoped that the inclusion of these two categories with a very low weighting would help to reduce subjectivity in the assessment of the other categories regarding 'knowledge of content' on the grid. At the pre-assessment meetings, it was agreed that students would only be marked down on the 'presentation' category if they could not express themselves at all. In other words, as long as they could communicate their thoughts (with or without help), they would get the benefit of 4/5 or 5/5 on this category. Consequently no student received less that four out of five for presentation.

Assessors were trained in using the grid and after the assessments at UND, the assessors felt that they were able to give a "*fairer assessment to the candidates*". One of the assessors who had earlier expressed reservations said, "*being able to formally score presentation and prompting left me free to focus squarely on the other categories*". To which the other added, "*yes, it's like getting the niggley bits out of the way so that you can concentrate on the bigger issues*". Assessors at MLST also felt "*more comfortable*" that the two categories had been added on to the grid and said that they felt "*more assured*" that they would "*score the candidates fairly*". Only one assessor at MLST questioned the relevance of incorporating the two categories on the grid. She felt that "*if you are not testing presentation, then don't score it*" as it "*just defeats the whole purpose, doesn't it?*" Only much later, after having assessed a

few sessions of oral assessments, did she concede that "*perhaps there is a need for this now, but I still think that as soon as we get the hang of doing the assessments that we should not score students on presentation. Otherwise what message are we sending out to the weaker students?* To which another responded, "*if you do not know your content, you will get low scores for the first three categories and that your ability or inability in a language is not going to factor into the equation!*"

SUMMARY

A participatory research methodology facilitated collaboration with the participants which yielded many rewards. Students and assessors played active roles in my project and their input and comments were solicited at every stage. Using an action research method enabled restructuring of the assessments which resulted in the refinement of the administration and structure of the assessments to the satisfaction of the participants. Being actively involved in the research process, a qualitative approach was necessary to enable in-depth analyses of observations and participant responses. The semi-structured focus group discussions allowed dialogue with the students and assessors which was withheld by the questionnaire survey. Both forms of data collection were necessary as they provided different types of input and information from the participants. The oral (focus group discussions) and the written (questionnaires) also complemented the mixed-mode assessment employed in my research.

Reliability and validity or consistency and comparability of the oral assessments was achieved by a triangulating data from the assessments, the questionnaires and the focus group discussions. This was also achieved by devising a detailed oral assessment grid for scoring the candidates and by training the assessors to conduct the assessments and in using the oral assessment grids. Protocols were used for each round of the assessments to guide the assessors in the assessments. The action research methodology employed yielded a wealth of data which is analysed in the following chapter.

CHAPTER FIVE
FINDINGS

INTRODUCTION

In this chapter I report on the findings of the field work in the two sites, UND and MLST. I open this chapter with an explanation of terms used so that their meaning or use is clear and unambiguous for the reader. In the first section of this chapter I describe how I worked with the data within an action research study. In this section, I explain how the direction of my research changed from its initial perspective. I then go on to analyse the questionnaires and the focus group discussions, focusing in particular on the themes and categories with which I worked. In the next section, I discuss the group oral assessments. The weighting of marks for the mixed-mode of assessment is reviewed before the penultimate section of the chapter which highlights the participants' recommendations for improving or enhancing the design and administration of the oral and the mixed-mode assessments. The final section summarises my findings.

Explanation of Terms Used

Please note the following clarifications with regards to the use of : UND and MLST; EFL and ESL; and pseudonyms. *UND* refers to the first round of assessments conducted at the University of Natal, Durban, (now University of KwaZulu-Natal) and *MLST* refers to the second round of assessments which were conducted at the ML Sultan Technikon, Durban (now the Durban Institute of Technology), after adjustments were made to the procedure.

The classifications *EFL* and *ESL* were determined from: the demographic information on the questionnaires and the respondents themselves. All the participants in my project were adults and they are aware of their proficiency in the medium of English and the other languages they speak. Students and assessors classified themselves as either *EFL* or *ESL* – no proficiency testing was therefore done to confirm or deny these classifications.

Pseudonyms have been used only in cases where participants had to be identified or referred to individuals. Pseudonyms are used to protect the identity of participants discussed or quoted in this chapter.

RESEARCH METHOD AND DIRECTION

As in most qualitative research, my research was not based on a fixed theoretically-based hypothesis, but was based on "the recognition that existing practice" in assessment "falls short of aspirations" (McNiff 1988: 74). As such, my study followed an action-reflection methodology (McNiff 1988: 73) of: identifying a problem, imagining a solution, implementing the solution, observing the effects, evaluating the outcomes, modifying actions and ideas in light of the evaluation, [and] re-planning for the next action step.

"In action research study it is important to keep things in perspective and to remember that plans may well change as other issues are unearthed. Certainly the perspective may well alter" (McNiff 1988: 82). So, although I began my research with guiding questions the direction I eventually took came about as a result of working with the data, the assessment sessions and feedback from the participants. Hammersley and Atkinson (1990: 24) support such a change in their comment that "the strategy and even direction of the research can be changed relatively easily, in line with changing assessments of what is required by the process". Consequently, this chapter discusses issues surrounding the oral assessments conducted and abandons discussion or analyses of the questions that dealt with issues which later became redundant to my study, for obvious reasons. My perspective on the weighting of the oral and written marks was certainly "altered". Although the questionnaires and the focus group discussions (and subsequently the analyses thereof in this chapter) made reference to a 50/50 split in the oral/written marks, the perspective that emerged after the assessments and the collaboration with the participants led to a different understanding on the calculation of marks as explained later in this chapter (under the heading: weighting of marks).

In keeping with the mixed-mode of assessments, participant responses were sought in writing (*via* questionnaires) and orally (*via* the focus group discussions). The questionnaires provided me with biographical data as well as candidate perceptions of the assessments conducted. The focus group discussions allowed me to discuss issues related to the assessment sessions with

the participants more candidly and in-depth. The purpose of seeking these responses, was to obtain feedback to enable me to enhance and to make necessary changes to the design and administration of the assessments. As the questionnaire contained some open-ended questions and other questions which required participants to substantiate their responses, and the focus group discussion responses by their very nature being subjective, the data gathered was content-analyzed. Content analysis entails "summarizing, standardizing and comparing" (Smith 1975: 147). Verma and Bagley (1975: 247) caution that whenever results have to be content-analyzed, there "is a possible source of bias". Responses in this study are therefore presented verbatim without any additions or deletions by the assessors or myself. These verbatim responses are presented in italics so that they may be easily distinguished as direct quotes from the respondents.

QUESTIONNAIRE AND FOCUS GROUP ANALYSES: ASSESSMENTS

Of the one hundred and sixty one students surveyed at UND, only seventy eight unspoilt questionnaires were received. Sixty five unspoilt questionnaires were received from MLST. The number of returns was also due to the fact that some students did oral assessments twice, (that is, they did oral assessments for more than one subject), but answered the questionnaire once only. The students at UND were asked to complete the questionnaires immediately after their oral assessment session. They had to fill in the questionnaire and deposit them into a box provided before they left the exam room. Analysis of these questionnaires revealed largely negative sentiments about their state of mind.

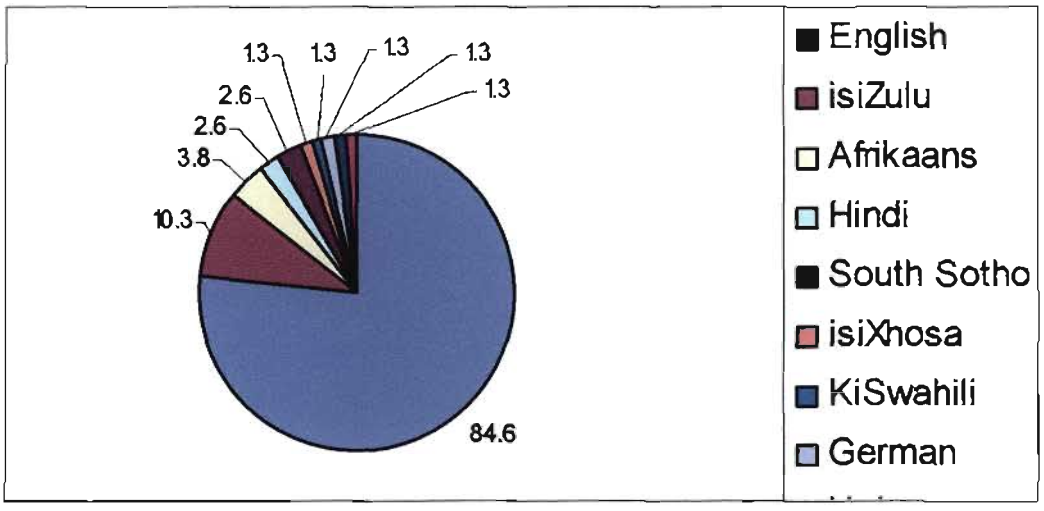
Students were unaware of how they had performed in the oral and were in a state of anxiety about their performance and their marks (*see* Alpert and Haber 1960). As one student said (in the focus group discussion), "*we had just finished the oral and we still had a very nervous feeling in our throat*". To which another added, "*yes, we didn't even know how we did. We didn't want to say it went well, in case we didn't do well, then we would look really foolish*". In the MLST assessments then, students were asked to complete the questionnaires and to hand them in to their lecturers within one week of the assessment, giving them time to reflect calmly on their experience.

Biographical Data

Home Language

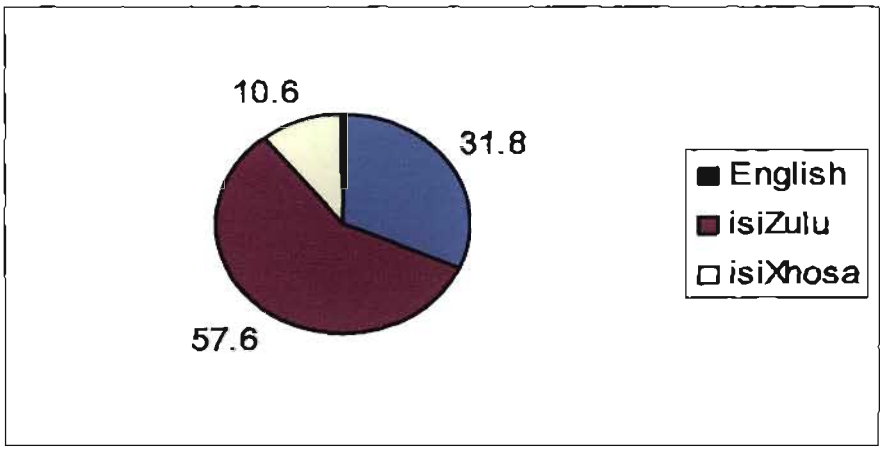
Of the seventy eight returns at UND, twenty questionnaires were filled in by males and fifty eight by female students. The population consisted of thirty five second year and forty third year students. One student was repeating second year and two were repeating third year. As shown in *Figure 7*, an overwhelming majority of the UND sample, that is 84.6% speak English at home, while 10.3% speak isiZulu and 3.8% speak Afrikaans. 2.6% each speak Hindi or South Sotho at home, while 1.3% each indicated that their home languages are either isiXhosa, KiSwahili, German, Urdu or Setswana.

Figure 7: Home Language of Students (UND)



It is also evident from *Figure 7* that the majority of the students in this first round of the assessments were EFL students. This was done deliberately as the second round of the assessments comprised of a majority of ESL students (*see Figure 8 overleaf*) thus giving an indication of the use of mixed mode assessment with EFL *and* ESL students.

Figure 8: Home Language of Students (MLST)



In the MLST sample, 31.8% of the students speak English at home, 57.6% speak isiZulu and 10.6% speak isiXhosa giving us a total of 68.2% non-mother tongue speakers of English. Fourteen males and fifty one females made up the sixty five returns in round two. This comprised sixteen second year and twenty seven third year students. Six students were repeating second year and eight were repeating third year.

One hundred percent (five) of the assessors surveyed at UND, speak English at home. Of the assessors at MLST, 80% (four) speak English at home and 20% (one) speaks Ndebele.

Language of Assessment

The assessors were unanimous that the students should be assessed in English. "*How else do we cope with the diversity of languages in one class? Each of us would have to speak all eleven official languages, and then some, fluently*", said one assessor. "*Yes,*" jested another, "*and what happens in the case of a foreign student?*" To which a third respondent replied, "*perhaps we should employ interpreters*". The conversation then veered off at a tangent into discussions about the logistics of hiring interpreters and eventually all present agreed that this required in-depth research and was a study on its own. The assessors agreed that "*English is the language of globalization and communication in the international community*" and that "*apart from being a neutral language in a country with eleven official languages, and then some, it would also empower students to take their place on the global stage*".

An overwhelming majority of the students, that is, 97.4% at UND and 74.5% at MLST would prefer to be assessed in English. The focus group discussions revealed that students regard English as the language of "*power*" and "*international communication*" and they want to share in this power (*see* Bourdieu and Thomopson 1991). "*Yes, we do like to speak our mothers' tongue with our friends, at home and when we are out, but we do not want to receive separate education in this language. We want to learn the same as the Whites and the Indians.*" To which another student added, "*so that we can compete for the same jobs. If we are taught in our home language, it will limit us. Sure, I can get a small job in a dorpie, but I won't be marketable with Afrikaans in South Africa today. That is why I attended a English-medium high school. Also, I can leave this country and go overseas to get a job with English*". Large (1983: 14) concurs that students want their education to prepare them for experiences in the wider world. Mbatha (2004: 10) says that university students regard English as "being more valuable" as "there is no educational 'value' or status" associated with their mother-tongue at tertiary level (*see also* Kamwendo 2004: 5). Students value their mother-tongue but just feel that all learners should be educated in the same language as they all compete "*on the same job market*". They seem to divorce education from their domestic and social lives and regard English as a "*key to opportunities*".

A group of students compared the notion of mother-tongue tertiary education to the Verwoerdian era where Blacks were taught in their mother-tongue as a means of oppression (*see* Horrell 1968; Rockhill 1994), "*this could be sly way to still keep us Blacks down*", but another student asked "*is this racism in reverse? Does it mean that if we can't speak Zulu in KZN that we will not be able to get a job here?* It was clear then that students wanted to be taught in the medium of English. Pretorius (2001b: 19) also found that "South African pupils don't just prefer English as the language of learning for themselves but for the future" and they are supported by their parents who "realise their children have to compete in a global world [where English is a key language]". Alexander (2000a: 2) says though that "an English-only, or even an English-mainly, policy necessarily condemns most people, and thus the country as a whole, to a permanent state of mediocrity, since people are unable to be spontaneous, creative and self-confident if they cannot use their first language". Lodge (1998: 2) posits that "if unproblematised access is granted to powerful university discourses so as to give students access to real economic power, in the manner of traditional genre theory, or

communicative language teaching, the dominance of the discourses (both symbolic and real) is maintained. Lodge adds (1998: 2) that " if access to the dominant discourses is denied by, for instance, actively encouraging students to use non-standard Englishes, then students remain marginalised, for the social formation continues to grant symbolic and real power to standard English and the genres that are used by these discourses".

Experience with Oral Assessment

At UND, three of the assessors indicated that they had conducted oral assessments at tertiary level before and that they had also been candidates at oral assessments - all of which were for post graduate studies between the years 1976 to 2000 and subjects included Biology and Entrepreneurship. Two of these assessors recalled their experiences as candidates of oral examinations as students in Italy, "*phew, those were public oral examinations, any student could attend your oral!*", "*and we had to present ourselves as candidates. There was no roster to inform you of your assessment time. The onus was on the students to present themselves for the orals*". Of the three assessors mentioned above, only one person had conducted an oral assessment in the form of an oral presentation for Botany Honours students. Experience for the other two participants came only from the orals within the ambit of my project, either as examiner or co-examiner. None of them had any experience as candidates at undergraduate level making my project a new learning experience.

One of the assessors at MLST had conducted an oral assessment at tertiary level before as a co-examiner for Microbiology in round one of the assessments for my project. "*I'm really looking forward to the revised format for the second round of assessments*," she said. None of the other assessors at MLST had conducted oral examinations before. As none of the participants had any experience as examiners in the format proposed, all assessors had to be trained to conduct the assessments (*see Chapter Four for detailed discussion*). Assessors were enthusiastic and keen to learn and try out this method of assessment with their students. One assessor said, "*I'm excited about really communicating with my students. There's nothing more frustrating than sitting up in the wee hours of the morning trying to figure out what your student has written – do you just put a line through his answer or do you continue trying to make some sense of what he's written?*"

Fifty two students at UND and sixteen in MLST responded that they had not done an oral assessment at tertiary level before. Of the twenty six students in UND and forty nine in MLST that answered 'yes', it is noted that their previous experience with oral assessments was only with another oral assessment done for the purposes of my research. No other experience with oral assessments was noted either at UND or MLST. In effect therefore, all students participating in my study, experienced oral assessments for the first time with this project, so the experience was new to them. Predictably therefore, the majority of the students indicated that they were nervous on the day of the oral assessment.

The Individual Oral Assessments

Themes/Categories

McNiff (1988: 85) agrees that it is important to "synthesise" the data "in such a form that it may be easily communicated to, and comprehended by, other people". In order to transform the data gathered into easily readable text then, I decided to consolidate all the information from the questionnaires, the focus group discussions and the assessment sessions by grouping candidate responses into specific themes. I decided against analysing each question on the questionnaires and the focus group discussions separately and in detail as it became apparent that there were common areas of concern being expressed by the students and the assessors. It seemed appropriate to group these common responses into 'themes' so that the reader could get a clearer picture of the different perspectives of each category discussed.

This section details the themes or categories that emerged from participant responses to the questionnaires, focus group discussions and the assessments. Constas (1992: 254) states that categories do not simply 'emerge' from the data, adding that "categories are created and meanings are attributed by researchers". After analysing data gathered from the questionnaires and the focus group discussions, initial commonalities or themes seemed to be reflected in the data. A second and third reading served to support or modify these themes. I then put up a list of the themes for assessors' and students' comments and for them to judge their validity, in other words, to verify them, whether they would categorise their responses under those themes. Due to the confidentiality and anonymity of the respondents, that is, the sources of the data, further collaboration was not possible on this particular issue.

Studies show that "nerves" (Butler and Wiseman 1993: 339) before and during an examination on the part of the student and "uneven judgement" (Platt 1960: 117-118) on the part of the assessors due to their emotional state, can play a very significant role in determining the outcome of an assessment and the grade of a student. Since all the respondents in my study were doing oral assessments (in the prescribed format) for the first time, they were anxious about the new method of assessments. The first two themes that emerged were *the emotional state of the students and of the examiners*. As one candidate wrote, "*it was my first time doing an oral, I was very nervous and I was afraid that I was going to mess it up*". The assessors were excited about trying out a new method of assessment, but they were also concerned about how they would fare as examiners. One examiner said, "*let's structure our times so that we build in sufficient breaks. I do not want to be assessing students on an empty stomach – I'm bound to get very cranky if I do, this will impact on the students and I'm afraid, on your study too*". Platt (1960: 118) also cautions that a "hungry committee just before lunch hour is inevitably inclined to quick snap judgements and snappish behaviour; after lunch, to leisurely and digressive and kindly examination". These are serious factors to be considered and given the personal nature of oral assessments, I thought it relevant to discuss the emotional states of the assessors and candidates as separate themes to determine their influence on the assessments.

One of the objectives of my study, was to devise an oral assessment format that would suit the present South African tertiary education system. I therefore needed to get feedback from all the participants on the administration and structure of the assessments, hence the third theme, *the structure of the assessments*. *Language* was the fourth theme as the whole purpose of introducing oral assessments was to afford students the opportunity to express their knowledge of the content in two modes, that is, orally and in writing and communication in either of these modes occurs through the medium of a language. Comprehension and understanding, an inherent part of any language are also discussed in relation to the assessments. Related to the theme of language, are themes five and six, *communication skills* and *prompting and probing*. The latter enables the examiners to assist the students to give a better account of themselves.

Students and assessors alike valued learning from the assessments, thus the seventh theme, *assessment as a tool for learning*. Assessors were pleased that students were learning from

the assessment, that is, from their peers and from the examiners. They were particularly delighted with the "*unexpected benefit of learning about our own method or style of teaching from our students*". Sieborger and Macintosh (1998: 27) feel that written assessments are "impersonal" and of "benefit" to the learner, while Platt (1960: 117) states that the personal interaction of the orals, "introduces uncontrollable biases in judgement", but assessors in my study, argued in favour of the face-to-face interaction provided by the oral assessments, hence theme eight, *anonymity versus face-to-face interaction*.

Within the above themes, I also included discussions on other issues that arose from frequent participant responses. What follows, is an analysis of the questionnaires and focus group discussions for the individual oral assessments using the themes/categories outlined above.

Emotional State of the Students

As was mentioned several times in their responses, a lot of the nervousness and tension was due to the fact that students were used to written only assessments and did not know exactly what to expect for the orals. Sarason (1984: 930) agrees that anxious people worry about possible difficulties they may be called upon to confront. Students were "*afraid*" because they "*did not know what to expect*", they were "*afraid of going blank under pressure*", "*not being able to answer the question*" and "*embarrassing themselves*".

An overall analysis of student responses regarding their emotional state revealed why they were nervous:

> "*first time I was doing an oral*" - as it was their first experience with oral assessments, they "*did not know what to expect*". The fact that marks were being allocated for "*a new form of assessment*" also made students nervous
>
> "*I was afraid of going blank under pressure*" - they were afraid of being "*put on the spot*" and having "*to come up with an answer quickly*"
>
> orals do not allow anonymity as some students responded, "*you cannot hide behind your script*" and "*you didn't have to look at the lecturer in the written test when you*

didn't know an answer". Others agreed that "*it feels more personal when they [the assessors] ask you questions directly*"

students were nervous about "*speaking in front of the* others" because "*in the written, if you are unsure, no-one else is aware of it and you don't get embarrassed. But in the oral, you are facing the lecturer and the students and they just think you are stupid or something.*" Another student agreed that "*you cannot erase your answer in the oral. Once you have said it, it is there and you cannot erase it or redo it!*"

Anxiety is usually defined as a complex state that includes cognitive, emotional, behavioural and bodily reactions (Sarason 1984: 931). According to the students, this anxiety manifested itself in various forms during the orals, for example: "*I tended to mix things up*", "*shaking hands*", "*heart pounding*", "*tend to go blank*", "*lose confidence*" and "*have a mental block*". The examiners play a vital role in helping to reduce anxiety levels. They must be skilful in dealing with students who are anxious. Otto (1993: 11) says that "sometimes the examiner will have to do something practical in extreme cases, like allowing the student to go out and have a drink of water". He states further that "the examiner must not ask the student who is moderately anxious, 'are you nervous?' every five minutes. This just makes matters worse" [...al beteken dit iets so prakties soos om die student die geleentheid te gee om net water te gaan drink. My ervaring is dat dit net by uitsondering werklik nodig is. Wat die eksaminator nie moet doen nie is om die persoon wat net "normaal gespanne" is, elke vyf minute met 'n grynslag te vra: "Is jy gespanne'? Dit vererger sake net].

It must be borne in mind that students also mentioned that "*they were not well prepared for the oral*" and that for the oral one needs "*general knowledge*" about the subject. In their study, Butler and Wiseman (1993: 348) found that "students who had not done sufficient preparation or who were inclined to be overly nervous provided negative feedback which may not have been justified". In the focus group discussions (which were held after the oral assessments), students were emphatic that the "*conversational nature*" of the orals was very beneficial in allowing them to express themselves "*freely*", giving them the chance to correct mistakes, rephrase their answers and to explain to the examiner exactly "*what they wanted to say*". In a bid to reduce anxiety levels and to address the serious concern that students "*did not know what to expect*" in the orals even after being thoroughly briefed, before the second

round of assessments, mock orals were conducted in class, where the students, the assessors and myself simulated oral assessment sessions to give all the participants the experience of an oral examination. Assessors and students were pleased that the mock orals allowed them to "*experience the real thing*". Students did say though that although anxiety levels were reduced, it did not succeed in eradicating anxiety completely. The mere fact that students were receiving marks for the assessments, was enough to create anxiety. As one assessor said, "*... you just don't stop being nervous about assessments*" (*see* Deffenbacher 1980).

The MLST assessments included more ESL students and it is interesting to note that their negative feelings in relation to the orals concentrate around the issue of confidence in language, that is, not wanting other students present in their session, afraid of being "*judged by the others*", and afraid of "*embarrassing*" themselves because "*they compare your answer to what they would have said for the same question*". Bensoussan and Zeidner (1989: 45) found that students who reported being more anxious on oral exams also appeared to be more anxious when exposed to social encounters involving different ethnic groups as well. This finding was supported in the focus group discussion, when the majority of the students said that they preferred to be assessed with "*other blacks*", "*other first language speakers of English*", or "*other Zulu speakers*". The reason for this, said the ESL students, was that their friends would not "*mock them*", "*judge them*" or "*laugh at their English*". If they could not answer a question in "*proper English*", their friends would be supportive and "*not giggle*".

"*I will definitely choose my friends who are not mother-tongue English speakers to sit in my session*" said one ESL student. Corey (1990: 89) suggested that the basic criterion for the selection of group members should be "whether they will contribute to the group or whether they will be counter productive". ESL students generally wanted to be assessed with students who "*shared*" their background in English, so that they could support each other and not feel that their proficiency in the medium of assessment was being scrutinized or judged. The EFL students admitted that their closest friends came from the same language background as their own. So, having socialised in a homogenous group, they wanted to be assessed in such a group as well. The first language speakers did not want to be "*held back*" by the ESL students. They said that the ESL students take "*a long time to answer*" and "*they do not express themselves clearly, thereby taking up a lot of time and frustrating the examiner which impacts on us*". They also felt that the examiners are "*more lenient and more tolerant with*

the ESL students, and they are given time to talk, but we have to come up with the words, ...er ...sentences quickly".

The ESL students on the other hand, were concerned that the examiner would favour the EFL students because of their proficiency in English and that if they (ESL students) "*asked for clarity a lot, the examiners would think that we are dumb and that we don't understand anything*". Some EFL students on the other hand, felt that they should be given due credit for their proficiency in English and "*the fact that we can present our answers better*" than the ESL students. "*Why should we lose out just because they [ESL students] can't speak English well?*" was the question raised by some of the EFL students. It was therefore pointed out to all the students again, that the purpose of the oral assessment was not to test or judge proficiency in English, but to assess knowledge of subject content. The students were also reminded of the score that 'presentation' carried on the assessment grid. This helped to allay some of the fears of the ESL students and gave the EFL students some hope that their proficiency in English would at least receive a score, but they (EFL students) would have liked this weighting to be higher.

The make-up of the group can lead to different scenarios. The ESL only group can lend support and a 'safe' environment to commit language errors. The EFL only group need not worry about language but must concentrate on putting forth their knowledge of the content. A combination of the ESL and EFL can lead to the EFL students learning about the problems that the ESL students experience with language and therefore assessment, thereby hopefully, making the EFL student more understanding and supportive. The ESL student can also benefit from listening to the language of Science being spoken by the EFL student. A group of high-flyers (be they EFL or ESL students or a combination of the two) can lead to very interesting discussions, motivations and challenges with each other. This could be a real bonus for the examiners. A group of under-achievers could benefit from the added support of the group and the prompting from the examiners as well as the verbal and non-verbal cues from the group.

Bensoussan and Zeidner (1989: 40) do not regard anxiety as having a negative effect on performance. They said that "while early research on test anxiety focused on its negative impact on academic performance, anxiety has been found to affect some examinees

positively. Later researchers increasingly realised that whereas the performance of some students may be severely debilitated by anxiety, others may be spurred to do better and perform maximally under test conditions." Although the effect of anxiety was not formally measured in my study, it is apparent from *Tables 8 and 9* that both the EFL and the ESL students performed better in the oral assessments than they did in the written.
Table 8 analysed the results of the students at UND and *Table 9* (*on page 157*) analysed the results of the students obtained at MLST. A close examination of the *means* in *Tables 8* and *9* reveals that on average, both the EFL and ESL students fared better in the oral than they did in the written assessments.

Table 8: Analysis of Student Results at UND

Group Statistics

	LANG	N	Mean	Std. Deviation
Written mark	English First language	134	61.9925	21.1836
	English Second language	23	56.8696	16.9499
Oral mark	English First language	134	66.7388	15.9416
	English Second language	23	63.3043	18.2917
Total mark	English First language	134	128.7313	30.5902
	English Second language	23	120.1739	31.4363

Independent Samples Test

		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Written mark	Equal variances assumed	1.100	155	.273
Oral mark	Equal variances assumed	.934	155	.352
Total mark	Equal variances assumed	1.235	155	.219

Table 9: Analysis of Student Results at MLST

Group Statistics

	ESL_EFL	N	Mean	Std. Deviation	Std. Error Mean
ORAL	ESL	48	59.9375	12.5874	1.8168
	EFL	43	65.3256	15.1779	2.3146
WRITTEN	ESL	48	52.4583	10.4758	1.5121
	EFL	43	48.4651	17.5477	2.6760
FINAL	ESL	48	56.4792	8.4853	1.2247
	EFL	43	57.2326	14.7193	2.2447

Independent Samples Test

		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
ORAL	Equal variances assumed	-1.850	89	.068
WRITTEN	Equal variances assumed	1.334	89	.186
FINAL	Equal variances assumed	-.303	89	.763

Cognisance must also be taken of the fact that some individuals (both EFL and ESL) did in fact score lower marks on the orals and that they performed better in the written. But I am referring here to the general trend in the scores and the benefit of a mixed rather than a single mode of assessment. Admittedly, it is also quite possible that anxiety did have a negative effect on performance, but this was masked by some other positive effects. The influence of anxiety on the test scores obtained warrants an in-depth study and cannot be dismissed or explained away in just a few comments. However, I would like to highlight the positive comments made by some of the participants in relation to their actual experience with the oral assessments:

> *"At first I was sweating, but the lecturer made us feel comfortable – he was telling us jokes and talking to us like we were friends. After a while you forget it is a test and you just talk"*

"It was not as bad as I expected. I thought they would fire questions and bam, you have to answer. But it wasn't like that. We were like ...having a chat"

"It was a discussion ... like a conversation between the lecturer and myself. Hell, it was the first time I talked so much to my lecturer since I was in his class. We even talked about soccer at the beginning of the test. I mean, talking about sport during the Eco. oral exam? How cool is that? I was surprised. But I tell you, it made me chillax and see my lecturer as a person, not as a ... er ... examiner"

Perhaps the above helps to shed some light on what went on during the orals and how the anxiety levels of some of the students were reduced once the orals got underway. But there were still others who said that:

"The assessment was too formal. The lecturer asked a question and you had to answer. It was like an interview"

"I was so nervous that I just mixed things up. I couldn't separate all the information in my head. It was too nerve-wrecking"

"I had to face my lecturer head on. As if this wasn't scary enough, the other students were just sitting there quietly, waiting for me to make a mistake. It was too awful"

Mashego (2004: 6) suggests that if you are "fine on your own, but suddenly become anxious in group situations, you may be suffering from social phobia". He adds that such people usually experience "significant emotional distress" in certain situations, which include "being watched while doing something", "being the centre of attention", "meeting people in authority" and "going around the room (or table) in a circle and having to say something". This may or may not apply to some of the candidates (since they have not been diagnosed by a professional as suffering from such a disorder) but was worth mentioning if just only to highlight the fact that such a disorder does exist.

At this point, I feel compelled to share an experience of "*perceived nervousness*" with the reader to show how students deal with their own anxieties. During the Environmental

Pollution examination, Rekha's body language indicated that she was very nervous – her head was bowed, there was a lot of gesturing and she looked down at the desk and her sheet of paper while answering the questions, throughout the session. At the end of the session she said (to the assessor), "*I want to thank you. You made me feel very comfortable during the oral.*" This really surprised us all because where we had perceived overt nervousness, Rekha said that whenever she has to interact with people, she "*just pictures her room and avoids eye contact*" with the person she's communicating with. "*This,*" she said, "*makes me feel safe*". Rekha had done very well in the oral as she knew her content very well.

Definite changes were observed in students who did the orals more than once. In Shirley's case, the change was very stark. She was so nervous the first time round that she could not speak. The examiner was taken aback as Shirley was a "*bright student*". Nelson (1986: 70) cautions that sometimes, "one of your best pupils, who answers confidently in class, may turn into a quivering mass of nerves when he or she faces you alone across a desk". He adds that "it is then up to the examiner to make the student feel relaxed and at ease" as the "newness" of the experience is quite likely to have a silencing effect on the student. Accordingly, the examiner then distracted Shirley by engaging her in casual conversation about a programme that was aired on television the previous evening and about an event in class before coming back to the assessment question. Although she was calmer, she took a while to relax. At least she was able to respond to the questions. The second time round, Shirley appeared to be more relaxed and at the end of the session, she said, "*it was definitely better this time. I am getting used to it. ... Now, can I ask you a question about pollutants?*" As one assessor said, "*they are our students and fellow humans after all, surely we can put in some small effort to help them through the assessments. Assessments are always daunting, whether it's a first year or post-graduate exam, you just don't stop being nervous about assessments!*"

Half an hour before the end of the discussion, students were shown the marks they received for the oral. This was deliberately done before the questions on mixed-mode assessments were posed so that they could continue the discussion from an informed perspective – prior to this, they only had knowledge of their written marks and were guarded against saying anything favourable about the oral assessments because they "*did not know how we did*". Of course this took up a fair amount of time as students compared marks with peers and generally there was an air of surprise. One student shouted, "*wow, this is great. I actually got*

higher marks for my oral. So Miss, you reckon I have the gift of the gab?" When the discussions resumed, students appeared more positive and felt that "*the orals can help to improve my marks*" and "*if I do badly in one, I can work very hard in the other one to boost my marks*".

Emotional State of the Assessors

At UND, three of the assessors thought that their mood/emotional state affected the interaction between themselves and the student at some stage, explaining that "*some effect was inevitable*" or that "*there was less patience by the end of a long run of poor students*". This was probably due to the fact that all assessors did not adhere to the ten of fifteen minute time limit for the oral assessments. Also, because the time was unstructured and assessors had to divide the questions, and therefore the time at their discretion, a lot of the sessions lasted longer than they should have. This led to assessors having long sessions, missing breaks to make up lost time and being quite tired at the end of the day. Bearing in mind that this was their first experience with conducting oral assessments, it is understandable that the long sessions took their toll on the assessors. Oral assessments can have an open or closed structure depending on the format used (*see* Joughin 2000: 372; and Heywood 2000: 319). A loosely structured agenda was used for round one giving the examiners flexibility but this proved to be disadvantageous for both the students and the assessors as it impacted severely on the issue of time which in turn affected the assessments. Admirably, two assessors did state though, that they tried to put the students at ease and, "*just a smile and cheerful greeting from the student can lift the examiner's spirit*". Again, the advantage of human interaction in the assessment process is evident. Marking written test scripts provides no such interaction or relief.

The duration of the assessments, the questions asked and the breaks were very structured in round two. This yielded success and four assessors at MLST felt that their mood or emotional state "*did not affect the interaction between the students and myself at any stage*" as "*the structure of the assessments allowed us sufficient breaks*". One respondent said "*it did affect the interaction positively as students had good rapport with the examiners and they were relaxed*". Assessors too, were more relaxed as they did not have to "*draw new questions for each candidate from a question bank*" and the "*strict adherence to time helped us to follow*

the same routine with each student". They added that "*the sessions were interactive and very stimulating and all students were treated in the same way*". They also "*appreciated the differences*" (because of the live interaction) "*which prevented monotony in the sessions and kept us interested*".

A common concern with regards to oral assessment is that students who are assessed later in the day are advantaged because they have been privy to the type of questions asked. While some assessors at UND felt that students had "*become aware of the types of questions asked and could therefore prepare themselves mentally*", the others felt that the students were not advantaged, as the examiners "*kept changing questions and focus on the same subject*". Platt (1960: 114) insists though that in most subjects, there are only a few hundred factual questions that can be asked, whose answers will have any reliable relation to student ability. He adds that "it is obvious that a brilliant crammer might memorize the answers to all these questions and their variant forms, but it is equally obvious that if he did, he would have a knowledge almost indistinguishable from an excellent knowledge of physics, by any test!" Respondents at MLST were unanimous that students who were assessed later in the day were "*not advantaged in terms of the questions asked*", because "*the assessment was broken up into sessions and students did not have contact with each other*". Also "*different sets of questions were used for the different sessions*".

Structure of the Assessments

Students at UND complained about "*the differences in assessment time*". They noted that some candidates were assessed for eighteen or twenty minutes while the others' assessment lasted only fifteen minutes. "*This is very* unfair," said one student, and another agreed that "*since those students were given more time, they were given a better chance to do well*". It is very understandable that students felt disgruntled about the discrepancy in the duration of the assessments, but the assessors insisted that "*it was sometimes not possible to strictly observe the time limit as some students really required lots of probing and/or prompting to elicit the desired responses*". To overcome this, Wakeford *et al.* (1995: 934) suggests that examiners "should plan tactics for difficult candidates – for example, a slow candidate may be encouraged non-verbally and with specific questions ('give me three advantages of ...')" and that examiners should "arrange a code" for communicating with their co-examiners if "he or

she overruns". Assessors at UND agreed that "*the open structure*" and the fact that they "*had to choose questions randomly from a question bank*" also contributed to the differences in duration for the assessments. "*We had to choose questions from three categories, that is, short, medium and long to total fifty marks. Students required different amounts of prompting or probing. This was our and their first time. A learning experience for us all, wouldn't you say?*" said one assessor.

Students felt strongly that "*all students should be asked the same questions*", this is supported by Hill (1984: 75) as "a strategy to establish procedures that will enhance reliability and validity of the exams". Also, in choosing randomly from the question bank, assessors may ask students questions of different levels of difficulty or application resulting in unequal assessment for all the candidates marks. Regarding the order in which the questions were asked, students at UND were not given a choice as to the sequence in which they would have preferred to answer the questions. Being accustomed to the written assessment format, they would also have "*liked to see the question in writing*" so that they could have referred to it while talking.

Candidates were also critical of one examiner in particular, whom they felt needs to "*loosen up a little*". Students taking this subject felt intimidated by the examiner because he did not have a "*friendly*" approach. One candidate complained that "*he just looked at us with a blank expression as if he didn't care. No warmth, no ... nothing!*" Platt (1960: 118) warns against such behaviour by examiners and insists that "students are the wealth of a department and ought to be approached with the same attention to psychological factors". Other members of staff later said that it is the examiner's usual manner and that although unfriendly in appearance, the examiner was "*really a good soul*". This was definitely unacceptable as students felt uncomfortable. The examiner was then monitored and assisted by the other examiners in the session to ensure that he outwardly displayed a more friendly and supportive approach.

There was consensus among the students at UND that the examiners made them feel "*very uneasy*" when they were writing down notes while the students were talking. Students wanted to know what the examiners were writing. They felt that they were "*being judged*" and that "*the examiner was not listening*" to them. As one student said, "*I was very nervous when ...*

[the examiner] gave a slight smile and wrote for quite a while I was busy answering the question. I was trying to figure out what he was writing". Of course the purpose of the note taking was primarily to give the students feedback and to record areas or sections that were not well understood in class and needed revision. Assessors also recorded information to assist them when concurring (with the other assessor/s) on the mark to be awarded to the candidate. But, Rodriguez (1984: 8) observed that the assessor taking notes during the oral examination posed a challenge to the student as the student was unable to "concentrate on what he was doing", given the visible and physical action of the assessor writing. Frith and Macintosh (1984: 131) agreed that if assessors record marks during the interview, it "will tend to silence candidates".

After noting the criticisms and comments on UND, it was necessary to opt for a more closed structure which ensured that both assessors and students could benefit from the uniformity of a definite structure in the second round of testing. Also, educators are inundated with other duties beside teaching and assessment, which may include "daily lesson plans, committee meetings, undergraduate or graduate student advising, and publication schedules" (Dykstra-Pruim 1997: 17) and they cannot afford to devote an indefinite amount of time to assessments and the preparation and administration thereof. Students have other commitments too. If there is a definite structure in place, they would all know exactly how to programme their time and schedule for the day.

When commenting on the structure of the oral assessments, students at MLST did not complain about any lack of uniformity or unequal time per candidate as the students in round one did. They appreciated the fact that they "*had time to see the question, plan their responses, do rough work and then answer the question*" and that "*everyone was given an equal opportunity*" to express him/herself fully. Students could also choose "*the order*" in which they wanted to answer their questions. One assessor who had also conducted assessments at UND said that "*the examiners and the students were fully aware of the structure and therefore the time limits – this ensured that we did not overrun. Also, our questions were chosen, moderated, typed and handed to the student. We did not have the hassle of the question bank and making impromptu choices. It just made the whole process smoother*". Students at MLST felt that the assessments were "*very well organized*". There was general agreement that ten or fifteen minutes was adequate for the oral assessment.

Ten students at UND and seven students at MLST did indicate though that they felt this time was insufficient mainly because "*all the sections of the syllabus were not covered in the oral*". NCREL (2000: 4) rightly pointed out that "every assessment can assess only a sample of the content that the teacher has taught and the student has learned. If that sample adequately represents the total content and the technical quality of the assessment is high, we can infer that students who do well on the assessment would also do well on the remaining content that is not assessed".

The other issue related to the duration was that "*the time was too short to say everything I wanted to*". Candidates felt that if they had been given more time, they could have done more justice to the question asked. Butler and Wiseman's students (1993: 347) also felt that the assessments should have been longer, but the assessors felt that their scheduled thirty minutes "was sufficient time in which to gauge the students' understanding of the areas to be examined". While students feel that they need to tell the assessor all the information they know about the topic or question asked, the assessor can quickly gauge whether the student knows the content or not after a few minutes of speaking. It must also be borne in mind that any assessment has a stipulated amount of time and the examinee has to budget and use the time carefully so that all the questions are answered in the given time. Grant (1996: 15) noted that "with less experienced assessors, the students might indeed have been given the opportunity to say much more; however, it is likely that all the learning outcomes would not have been assessed" in the given time. Once an examiner is satisfied that the student has answered the question, he or she should move on to the next question.

Horowitz and Newman (1964: 642) stated that in responding, the process of speaking is approximately six times faster than that of writing. So, in an oral examination where time is restricted, a student should in theory be able to produce a better quality answer and generate more ideas in the given time by speaking than by writing. But Seddon and Papaioannou (1990: 2) argued that "one must also concede that the spoken language contains many redundant words, hesitation, pauses, rephrasing and reformulation of ideas" (*see also* Goldman Eisler 1961) and that "the slower speed of writing may have built in advantages, when students have more time to think about and alter their answers". As students in round one said, "*there was no time to think, you were asked a question and boom you had to answer!*" They were very unhappy about not being given time to plan their responses. They

felt that in the written exam, "*you can sort out your thoughts before you start writing. Also, if you are not happy with your answer, you can erase it or change it*".

The complaint from students that they were not able to answer the question given to them, but they could "*answer the question posed to the others*" begs the question: what would these students do in the real or working world? If for example, an Environmental Health student is confronted with a serious health issue while on a community visit or inspection, and he or she cannot answer the questions posed by members of the community, what would the person do, ask for another set of questions?

Language

A common complaint amongst ESL students was that, in the written only assessments, they often learned after the examination "*what the question meant*", that they "*could not figure out what the examiner wanted*" and that they had in fact misinterpreted the question. Tshabalala (Pillay 2002: 1) also found that "the phraseology of the questions" in the [matric] examination papers are "confusing to the candidate". This confusion cannot be sorted out and misinterpretations or misunderstandings cannot be cleared for the individual student in a written examination. Students were unanimous that the oral assessments enabled them to "*understand and answer the questions better*" and that "*we could talk to each other and sort out our misunderstandings. We did not have to just sit there and try to make sense of the questions on our own*". They were grateful that "*the examiners helped me to understand what they were asking*" and that "*the examiner assists students to achieve an answer, unlike in the written test*". One ESL student seemed to echo the thoughts of the others when he said that "*some lecturers use really fancy words that we cannot understand. But in the oral exam, we could just ask them to explain in smaller words and they did!*" Another added that "*this was wonderful. We did not lose marks either. We could sort out the problems and then go about answering the question. We did not have to feel foolish by answering on something else and let the others laugh at us*". They confessed that when they "*cannot figure out what is required*" in the written test, they just "*write down whatever I know about that section*" in the hope that the examiner will find the facts "*somewhere in my answer*". Vygotsky argued that private speech (egocentric speech) was the bridge that linked social and individual functioning. Not surprisingly, language, as mediator of both social interactions and mental

functioning, has a privileged role in the internalization process (Diaz *et al.* 1993: 147). They go on to explain that "internalization, the movement of a function from the social to the mental plane, occurs, therefore, when children begin to use for themselves the signs that adults used to regulate their activity". This internalization is manifest in situations which encourage "adult-child shared word meanings" and "more specifically, in children's active and spontaneous use of the sign system to regulate their own activity" (1993: 147). This sign system or speech in English can only be nurtured and developed by practicing speech in English. The oral context enables this practice and affords the added advantage of having discourse mediated by the facilitator or assessor. Regular practice in the use of the sign system then would lead the student to being able to use speech independently of the assessor, thus enabling to close the gap in the student's zone of proximal development in relation to speech or language. The student would then be able to achieve full participation in this regard.

In written only assessment, the invigilator or the examiner is prohibited from assisting individual candidates to understand the instructions, the questions or the language. Neither are the individual candidates allowed to seek guidance or clarity on how to answer the questions. Individual assistance is not permitted as the student who sought assistance may be unfairly advantaged over those students that did not seek clarity . If the invigilator is also the examiner of the paper, he or she could unwittingly give away more information than was actually sought by the candidate in the first place, again unfairly advantaging the student. On the other hand, if the invigilator is not the examiner, and if he or she does not have sufficient knowledge of the subject being tested or exact knowledge of the examiner's requirements or intentions, the invigilator could mislead the candidate by misinterpreting the word or the question and this could disadvantage the candidate who sought assistance.

Written assessments by their very nature do not permit interaction because students will answer a paper at their own pace and tackle questions in different order. If for example, student A is answering question 1 and student B is answering question 3 when student C asks for clarification of question 2 – and the invigilator proceeds to explain, this would disrupt all the students. They would have to abandon their present train of thought and quickly move to question 2 so that they too can reap the benefit of the clarification. Imagine the disruption if such a scenario occurs several times during the course of one paper! So, if students do not

understand the question, they could fail, not because they do not know their content, but simply because they cannot decipher the question.

Participants appreciated the fact that the "*oral provided clarity all round*", that is, for the examiner and the candidate. *Figures 9, 10, 11* and *12* indicate participant responses to rating of the following four statements regarding the nature of oral assessments on a 5-point scale: students can seek clarity from the assessor when they do not understand the question/instruction; the assessor can seek clarity from the student when she or he does not understand the student's response; the assessor can assist the student who is unsure by providing clues or asking shorter questions until the student can answer; the students can rephrase their answers or illustrate them on the board so that the assessor understands what they are trying to say.

Figure 9 – Nature of Oral Assessment: Student Responses at UND

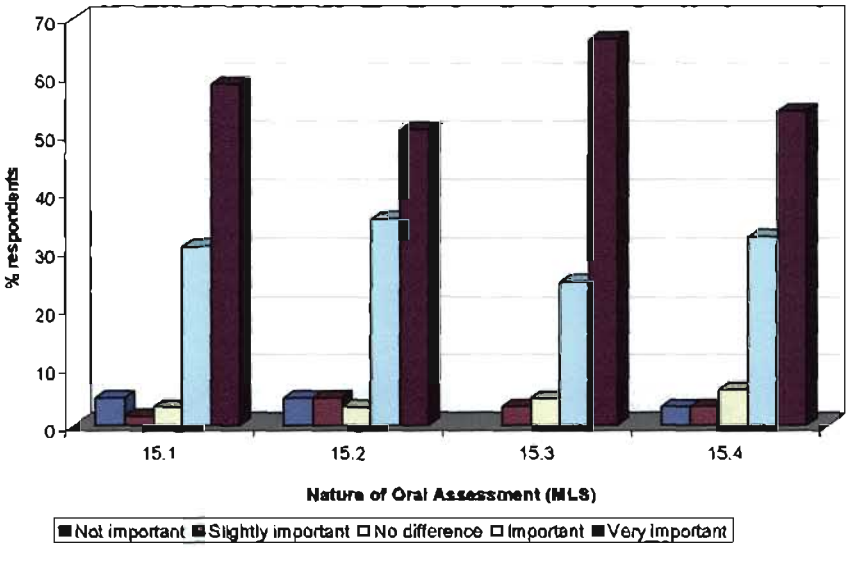


Figure 10 – Nature of Oral Assessment: Student Responses at MLST

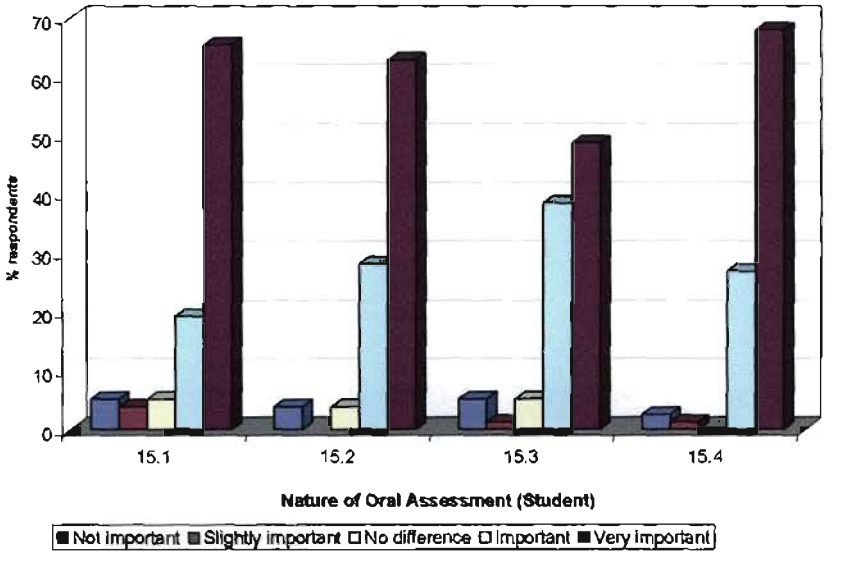
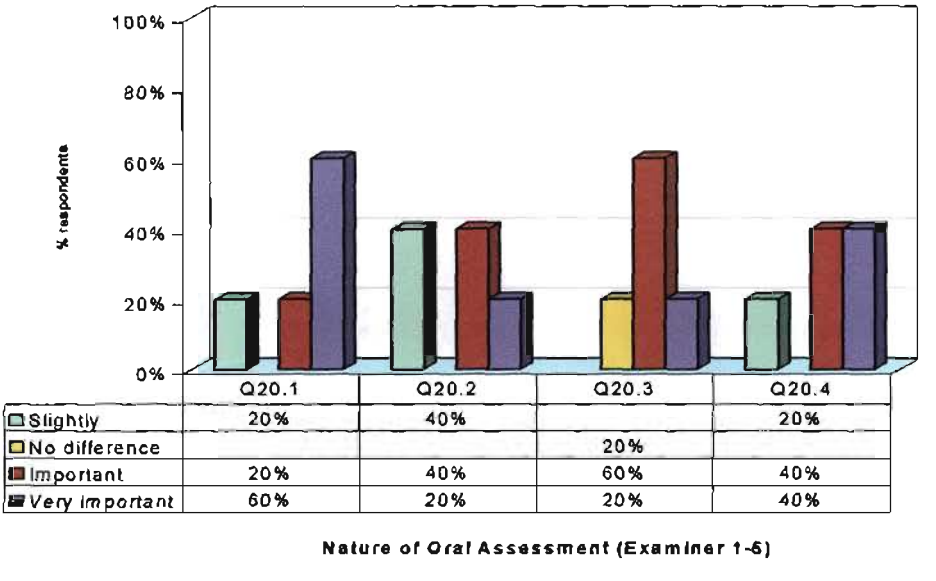
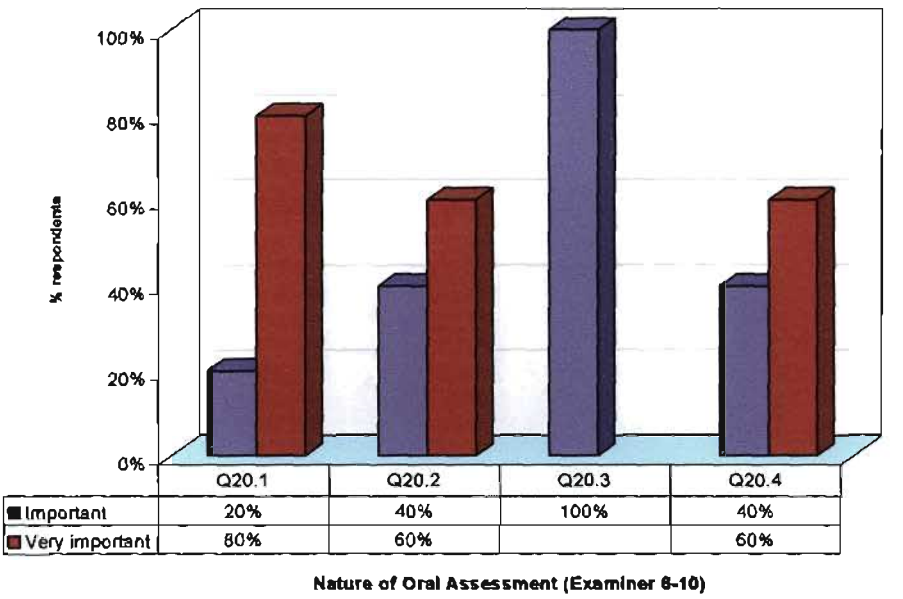


Figure 11 – Nature of Oral Assessment: Assessor Responses at UND



	Q20.1	Q20.2	Q20.3	Q20.4
Slightly	20%	40%		20%
No difference			20%	
Important	20%	40%	60%	40%
Very important	60%	20%	20%	40%

Figure 12 – Nature of Oral Assessment: Assessor Responses at MLST



	Q20.1	Q20.2	Q20.3	Q20.4
Important	20%	40%	100%	40%
Very important	80%	60%		60%

It is evident from *Figures 9, 10, 11* and *12* above that the participants rated all four statements as either "important" or "very important" indicating that they regard "clarity" as being a very necessary part of assessment. Evans *et al.* (1966: 651) agree that "ambiguity on the part of the examiner or student can be cleared quickly and stages of understanding observed more readily" in the oral assessment. Butler and Wiseman (1993: 339) and Joughin (2000: 371) concur that the oral assessment situation by its very nature allows dialogue so that the participants can seek clarity from each other as opposed to the written assessments which are private in nature. An example is taken from an Epidemiology oral, where a student directly said, "*I don't understand what you are asking for*". The examiner then rephrased the question to, "*okay, what factors influence ...*", and the student sighed with relief, "*oh, I get it now ...*". The student just could not understand the question posed and immediately said so. This would not have been allowed in a written test.

Assessors mentioned that the potential for "*mutual misunderstanding between examiner and candidate*" is greater in the written assessment. When the examiner is marking a written test, he or she has to make sense of what the student has written as the students are not present when their scripts are being marked. If the student writes poorly in English and the examiner

cannot understand what the student is trying to say, it could result in the student getting a poor grade or even failing. One assessor jested that students' scripts should be marked in their presence as both ESL and EFL students "*experience problems with understanding, comprehension and expression*". To which another assessor quickly pointed out that "*this would also seriously jeopardise the authenticity of the process. Not to mention the other logistical and practical problems – like some of us that prefer to mark at home*".

Evans *et al.* (1966: 651) also found that oral assessments help the "student who expresses himself imperfectly in writing". In the oral context, the examinee and the examiner can seek clarity from each other thereby assisting the student to convey his or her answers clearly. An ESL student's comment seemed to describe the anguish of his peers, "*Ish ... in the papers I try and put my point across, but the lecturer, she just marks it wrong even if I know my work. In the orals I can talk to him and she will tell me if she do not understand. Then I can tell her using different words. It is much better to talk. I can also ask if I do not understand*". The assessors agreed that it is "*much better in the oral context. One can find out exactly what the student is trying to say. There is no battle of mastery of language and expression. The student speaks and you can give immediate feedback. Beats marking written work anytime!*" But one examiner was adamant that "*regardless of whether the assessment was oral or written, understanding remained the same. When a student doesn't know his work, no amount of talking can save him*".

The other assessors were grateful that students could ask for rephrasing of questions in the oral assessment and they felt that this "*definitely affected the outcome of the tests positively*". Since students were able to seek clarity on the questions asked, they were "*able to spend their assessment time working out their responses and actually answering the questions rather than wasting time trying to understand the language of the questions*". Butler and Wiseman (1993: 346) also found that seeking clarification reduces "the risk of uncertainty in a way not possible with written assessment". An example is taken from a Microbiology oral where a student was responding to a question on water contamination with, "*it does contain some bacteria, but these bacteria are present to stop contamination from, er, other bacteria making it safe to drink*". The examiner had to intervene and ask the candidate to clarify what she was saying, "... *but that depends on many things. So, what are you telling me then about the level of contamination of the water?*" The student then rephrased her answer to, "*that*

potable water is not absolutely sterile or pure". The assessor was not satisfied and said, "*but we live, we drink it, we live ...*". The student interjected with, "yes", but the examiner wanted more information and added, "*the presence of these bacteria ... What kind of bacteria are they and where would they come from?*" Still the student did not follow and asked, "*which bacteria?*" To which the examiner replied, "*the ones in the potable water*". It was only then that she was able to discuss the bacteria present in potable water. Agreeably this student had problems structuring her answer and had to be helped along by the assessor, but imagine what this student would have written in an essay without the guidance of the examiner – most likely an unintelligible essay or one that would not have answered the question.

Sometimes students just need to know what is permissible in answering a question. They are afraid to answer in a particular way for fear that they would be penalised as was the case in an Animal Ecophysiology oral where the student started answering the question but then asked, "*I think the first area would be, er, to ,er, can I use an example?*" The examiner's "*yes, sure, by all means*" assured the candidate that it was alright to explain the answer by using an example. In a written test the student would not have known whether it would be acceptable to use an example and may have spent valuable time trying to explain the answer by other means.

Students do not know how to delimit their answers and feel that their chances of getting a better mark are assured if they produce a lot of information. They therefore write down everything they have learned about a particular section. This can prove to be really frustrating for the marker who has to sift through irrelevant information. Fortunately in the oral, the examiner can quickly delimit a student's response, as was the case in a Microbiology oral, when the student asked, "*am I supposed to explain the whole test, from the beginning to the end?*" The examiner then replied, "*no, just tell us what the purpose of the test is. What it is used for*". If this was a written test, the candidate would have spent a lot of time explaining the whole test, when all the examiner required, was to find out the purpose of the test.

Assessors were emphatic that they always try to ensure that their assessment questions are "*easy to understand*" and that they "*do not try to trap students with the questions. Questions are therefore asked in plain English*". But they did not realise the cultural and linguistic nuances at play that promote misunderstanding (*see also* Brown 1999). Also, one might

believe that one is being perfectly clear in one's expression only to find that one's message has been misinterpreted or misunderstood because of "different barriers that hamper effective communication" (Fielding 1993: 15-16). A question posed by one of the Epidemiology examiners was: "*What is an outbreak?*" Students struggled to answer this question. The examiner then rephrased the question to: "*what makes a disease to be regarded as an outbreak?*" But still, the students were not forthcoming with the desired responses. The co-examiner then tried to assist students by asking, "*say there's 20 people in Ladysmith infected with cholera and 20 people in KZN with 'flu – which is an outbreak?*" Only then were the students able to answer the question. This demonstrates that just because a question is simply worded (with only four words) it does not mean that its meaning is clear. The original question was too broad and students just could not understand what the assessor was expecting of them.

Some of the assessors in my project (as indeed many other assessors do) believe that since their papers have undergone moderation, they are free of any ambiguity and relatively easy to understand. But, we must bear in mind that our students come from very diverse linguistic, cultural and educational backgrounds which shape their perceptions and their understanding of concepts, words and phrases. During an Air Pollution oral, an assessor asked, "*what are the main pollutants provided for in terms of the Air Pollution Control Act?*" Repeatedly students were not answering the question as expected. During the break, I suggested to the examiner that the question be rephrased in order to get the desired answers from the students, and he responded that the question was correctly phrased in the context of Epidemiology and that the students ought to understand. I then asked the examiner to answer the question for me in order to establish exactly what kind of response was being sought from the student. He was expecting the students to say, "*colour of smoke, nitrates, ...*". Upon him answering the question and me clarifying a few points, he began to question the clarity of his question. He then rephrased the question which the students were able to understand, and the examiner was content that he could ask the question differently "*while keeping the context*".

The oral examination also alleviated the pressure of thinking of the correct word or expression as one student found out, "*... the bacteria causes , er, some, er problems in the water. Ooh, I don't know how you say it, um, contain, er, it makes the water not to be pure*", to which the examiner responded, "*Do you mean, contaminate?*". "*Yes, that's the word I am*

trying to say," said the relieved student. Although students were told that their presentation skills and ability to speak English would not be assessed, they were still sceptical. They felt that the mere fact that they were being tested orally, that their proficiency in oral English was being tested. "*Isn't it strange,*" remarked one examiner, "*that students would insist on believing this? Why don't they pay more attention to their written responses and their writing when they are tested in writing then?*"

There was general agreement that the student's style of language use/delivery in the oral did not play a significant role in the assigning of marks. Respondents said, "*students who were not fluent in English were asked to rephrase their responses, so that I could understand*", and students were not penalized for language, "*but were given the benefit*". The examiner who had classified himself as ESL, commented that "*the language did not affect my assessment, but I am very certain that student's experience a lot of problems in writing their answers in English*". His comment must be noted as it was based on his experience and interaction with his students as well as his own experiences with writing in English, bearing further testimony to the problems that ESL students experience with writing in English.

One hundred percent of the respondents at UND and MLST in each instance answered "not at all" when asked to explain to what extent the student's physical appearance, race and gender affected their assessment. From their own experiences of assessment at tertiary level and the fact that they were well aware of the aims of my project, assessors understood clearly the need for assisting students with language related problems and that they were not to penalise students for poor expression or comprehension. They had also agreed to participate in my project because of their frustrations of working within their present systems of evaluation, and they had welcomed the opportunity to assist their students with language difficulties. The assessors could therefore focus on assessment of content. Assessors added that having to score candidates on a detailed grid "*does not leave room for personal bias*". There was no category on the grid that allowed assessors to give a score for personal or overall impression. They had to work within the confines of the grid.

Communication Skills

Students that were not comfortable with having other students present while they were being assessed, said that they were "*afraid of embarrassment*" and "*nervous to talk in front of others*". Hay (1994: 44-45) blamed this on a lack of the "development of communication skills" which constitute "an area of weakness in educational practice" because "in schools, universities and at work, most formal attention seems to be directed at written communication, despite the day-to-day importance and power of the spoken word". He emphasized that "educators also have a valuable opportunity and some considerable obligation to encourage student mastery of certain communication skills". It must be noted here again that more than fifty percent of the Science educators surveyed in the local survey of my study advocate the use of oral assessment to benefit the communication skills of their students. Anthony (1991: 66) added that public speaking skills can be gained from oral assessment which can help you in your professional life and it even "comes in handy at staff meetings with colleagues and superiors, allowing you to exert a greater influence on important decisions that must be made. It can help you earn the recognition of your peers, and it can help enhance your ability to communicate with colleagues, family and friends".

Students were unanimous that the orals "*help you improve your oral skills*" and that they "*could talk out*" what they could not express adequately in writing. The majority of the students felt that mixed-mode assessments are a good way of assessing students as "*some people are good at talking and others at writing and we should all be given an opportunity to explore our capabilities*" and "*our job requires us to be good in writing as well as talking, so I think this trains us for that*". It is for the above reasons that Heywood (2000: 316) questions why aural and oral skills which are key communication skills, have been ignored in higher education with the exception of foreign language learning, medicine and viva voce examinations. Holland (2001: 5) adds that "communication skills are important for our students and are not exclusively related to speaking. They also include students' abilities to listen carefully, respond appropriately and construct arguments". It is important therefore that we train our students to communicate effectively in their chosen disciplines. Guhde (2003: 1-2) found that nursing is "highly dependent on accurate verbal communication, since much of the information and many orders are passed on verbalize". Guhde (2003: 2) added that to succeed in the healthcare environment, the student must be proficient in reading, listening,

speaking and writing". The importance of verbal communication skills in the working environment are emphasized. Students commented that if they did orals more, they would feel more comfortable, and that the orals should be introduced from the first year of study so that they could get used to this mode of assessment. This is perfectly understandable because the more practice one has in oral assessments, the more one will become accustomed to this mode of testing. Students were in agreement that after having done the oral once, they felt "*more relaxed*" for the other assessments. Having experienced the oral assessment first hand, the students realised that they could actually benefit from the oral assessments because they could "*seek clarification*", "*questions and answers could be rephrased*", and "*the examiners would steer us in the right direction if we are not answering the question correctly*". The examiners also tried to create a relaxed, conversational setting. This helped to demystify the unknown. Students could then prepare for the forthcoming oral sessions without being caught up in the grip of nervous tension going in to the oral assessment room for the first time.

Prompting and Probing

According to the Oxford dictionary, to "prompt" means to "assist with suggestion" and "a prompt" is "a thing said to help the memory". Prompting may be necessary when the student cannot recall information, when the candidate is not answering the question directly or the student is going off at a tangent including irrelevant information in the discussion of the answer. This "selective intervention" by the assessor provides "a supportive tool for the learner, which extends his or her skills, thereby allowing the learner successfully to accomplish a task not otherwise possible" (Greenfield 1999: 118). Prompts may take the form of providing clues, breaking up the question into sub-questions, or re-directing student thinking. *Providing clues* jolts the memory or gives the candidate an idea as to how the question should be answered, for example during a Microbiology oral, when a student responded to a question with, "... *it has the similar effects as intestinal anthrax. It's responsible for food poisoning, and it's not an infection. It's caused by a neuro-toxin that's produced by spores, er, when they divide they metabolic activities*". The examiner asked, "*Are you sure it would be the spores that would produce it?*" To which the student replied, "*The vegetative cells ?...*" The examiner nodded approvingly and the student continued to answer. Giving the student *clues* does not mean that the examiner gives the student the

answers, it means simply that the candidate is given an idea or suggestion which alerts the candidates that they need to answer in a particular way.

During an Air Pollution oral, a candidate was asked how "*socio-economic factors influence indoor air pollution*", the student focused only on the word 'economic' and began to talk about "*people who earn more*" and "*people who earn less money*". The examiner then asked, "*what about the social factors?*" The student promptly started to explain how "*friends influence others in the group to smoke*" and how "*this leads to social habits*" again focusing very narrowly on the word 'social'. The examiner realised that the student did not know how to structure her answer and he directed the student's attention to "*factors like: overcrowding...,*" The student took her cue from this and was then able to re-focus and answer accordingly.

Breaking up the questions into sub-questions allows the examiner to elicit the desired response from the students, like for example, when a candidate was asked, "*what are the nutrients in eutrophication?*" Her response was, "*nitrates and phosphates*". The assessor then asked, "*OK, but what nutrients give rise to the nitrates and phosphates?*" acknowledging the students response, but delving deeper to get the answer to the original question posed. When students answer in a very general manner, marks cannot be awarded because the examiner is uncertain as to whether the student knows the correct answer. In the oral assessment, the assessor can pose further questions to determine whether the student does in fact know the answer, as illustrated by this excerpt from an Epidemiology oral:

Student: *I don't think they can penetrate into the body*

Assessor: *What do you mean 'into the body'? Be more specific, where in the body?*

Student: *Into the lungs ...*

In a written examination, the student would not have been given this opportunity and the examiner would perhaps have had to determine the depth of the student's knowledge from the rest of his answer or simply not give the student the benefit.

Rephrasing the question enables the assessor to assist the student in his or her response. This is evident in the following dialogue taken from a Plant Physiology oral, where the student said, "*... it does affect water pressure and probably tension within*". The assessor interrupted with, "*OK, what you're telling me is how water tension is developed. I want to know, why it*

develops to the point it does" thereby directing the student's answer without wasting valuable assessment time. A further example of this may be seen in an example from a Microbiology oral where the language of the question created doubt in the mind of the student. The candidate was asked, "*What is citrate a source of?*" He replied with, "*Aish, I don't know* it". The examiner then rephrased the question to, "*OK, what do citrates supply?*" The candidate immediately said, "*Oh, carbon*", which meant that he knew the answer, but he just could not understand or answer the question in its original form and that the question was perhaps not phrased clearly. In a written examination, this student would probably not have answered this question because he would not have understood it.

When a student is going off at a tangent and not answering the question asked, this can cause students to lose marks in an examination. *Re-directing student thinking* can assist students to re-focus on the question posed. Fortunately in oral assessment students may be assisted as was the case in a Microbiology oral, where the student said, "*... the cells are like more complex but they function in different ways, but the virus has to, um, enter into another cell because it's not undergoing any cellular activity of it's own, so, it can't reproduce, whereas the cells ...*". The examiner then interjected with a direct question, "*Why, why is that?*" In so doing, the examiner was successful in eliciting a direct reply, "*Well, it doesn't have any enzymes ...*". Had the examiner not intervened, the student would have gone on giving irrelevant information, wasted time and not received a favourable mark. The assessors may also draw on the board to further illustrate the question. From the above excerpts it is safe to assume that in the absence of the prompts, the students would have lost marks as they would not have answered the question correctly. These measures help the student to understand the question or instruction so that ambiguity, misunderstanding and jargon are minimised.

According to the Oxford Dictionary, to "probe" means to "examine closely". When students did not answer a question fully, the assessors had to probe, that is, seek further information and ask follow-up questions in order to elicit the desired response as was the case in a Microbiology oral:

Assessor: *... and what happens when its got the oxygen?*

Student: *It lives inside the bacteria?*

Assessor: *Yes, but how does it manage to cope with that? Let's say it's suddenly in an anaerobic environment, how does in manage to cope? What happens inside the bacterium then?*

Student: *In an anaerobic environment, it copes with um, er, formation of spores?*

Assessor: *Sometimes, yes, but, I mean*

Student: *Metabolic pathways?*

Assessor *Correct, yes. And what does this switch consist of mostly?*

Student: *Er ... [silence]*

Assessor: *If there is no oxygen ...?*

Sometimes (at UND) the candidate's response prompted the assessor to ask related follow-up questions, that is, the assessor was probing the candidates' thoughts because the student had provided an interesting or thought provoking response, or the examiner was trying to determine whether the student understood the subject under discussion or not, or because there was a lull in the conversation. Levine and McGuire (1970: 64) acknowledge that the oral examinations allow the examiner to "sample higher level cognitive processes entailed in interpretation and problem-solving" and that "in a written exercise it is always possible to know what a person chooses but often impossible to determine *why* he makes a particular choice". The interactive nature of the oral assessment allows for probing for a deeper understanding of concepts. Grant (1996: 14) concurs that oral assessment "enables direct interaction in which more information can be obtained. It is also easier to check out one's interpretation of that information, which in turn leads to more accurate assessment". But, some students felt that the "*examiner was grilling them*" because they were "*answering the questions poorly*". They felt pressurised by the probing and follow-up questions. Others learnt off their notes and were trying to 'fit' their answer into the question asked. The student was getting quite flustered each time the assessor interrupted:

Student: *... where the spleen haemorrhages and becomes black and the blood clots are transported to various parts, er, organs in the body such as the lungs and this causes respiratory problems*

Assessor: *Anything else within this group of bacteria that is pathogenic?*

Student: *Within the ... bacteria?*

Assessor: *uh huh*

Student: *Ecola ...*

After her oral, the student asked the assessor "*why were you badgering me? I was giving you a full answer!*" The assessor then explained that she was not answering the question asked and that all he was trying to do, was to re-direct her responses so that she did not lose marks needlessly. He went on to explain that she often fared poorly in her written tests for the same reason, that "*you cram everything that you learnt about a section into your essay, whether it answers the question or not! That is not the purpose of an examination, we don't want you to spew out all your knowledge about a section of the syllabus. You must be able to apply your knowledge to the question asked. You must learn to sift your information ...*". After he reassured her that she did not lose marks because of the probing, she thanked the assessor for his assistance and said, "*sorry I attacked you. I didn't realise you were helping. I just thought that I was busy losing marks ...*".

There was agreement among the assessors that the number of questions asked did not affect the mark allocated. They explained that if many questions were posed, they were linked, attempting to get the student to arrive at the answer to the initial question asked and that it soon became evident what the level of understanding was. Prompting/probing received a low score on the assessment grid so even if the examiner was tempted (possibly out of frustration) to penalise the student for prompting, he or she would have had to score this on the grid and give it the related weighting without allowing prejudice to interfere with the rest of the student's score. Students had to be reassured that the very nature of oral assessments demand a continual question and answer routine, that it is conversational in nature and that they were not being victimized or interrogated in any way. The probing was to help them to answer, to understand the questions better or to jog their memory. Dykstra-Pruim (1997: 20) agrees that when the student is involved in one-on-one speaking with an examiner and the assessor poses a series of questions, it can make the students feel a tremendous amount of pressure. But, Grant (1996: 15) added that "challenging questions can lead to growth if they are more specific and addressed supportively". The role of the assessor is crucial then in maintaining a conversational tone.

Assessment as a Tool for Learning

A total of 84% of the students at UND and 78.5% at MLST, responded positively to sitting in on the oral sessions. This correlates with the responses to question 10 where 60.3% and 78.5% respectively said that they comfortable with having other students present while they were being assessed or that it did not make a difference. Students said that "*after a while*" they "*forgot the others were there*" and that their peers' answers helped to reinforce what they had studied. They agreed that they learnt more about the subject matter from the oral assessments. Otto (1993: 11) and Scholten (2004: 1) agree that the oral exams are a very useful method of teaching and testing. Butler and Wiseman's (1993: 345) questionnaire also revealed that students believed that "doing a viva improved their understanding of the material covered" and they also felt that an assignment on the same material "would not have provided as broad an understanding". Superville (2001: 4) concurs that students preferred oral discussions because "they learned from listening to others". The continual discussions offered different perspectives on the same issues or problems, and the different methods of resolving them, led to good learning for the students.

Holland (2001: 6) added that if students are "encouraged to analyse other people's work as a developmental strategy for improving their own work" then being assessed with peers is good. After all, that is what the group oral encourages, for students to assess each others work not for the purpose of assigning grades but as a learning strategy. The mere fact that they are present while their peers are engaged in conversation with their lecturer about some content in Science, means that the student will listen to, interpret and analyse what has been said. They will also listen to the immediate feedback from the examiner which will further guide their analyses of the others' responses. The assessor, by virtue of the continual interaction, corrected student responses if necessary or pointed them in the right direction. This ensured that the students learned the correct information. The students therefore have the opportunity to learn from each other, from their examiner, and from the discussions that ensue unlike in the written assessment where the students write down their answers (privately) and submit their papers for grading which in all probability will be done privately (by one marker). Discussion of a written paper after marking does not always take place in class, so, if there is no feedback, whether written or verbal from the assessor, it is virtually a lost learning experience. "Vygotsky theorised that an essential feature of learning is the creation of a 'zone

of proximal development'- a conceptual space just beyond a learner's competencies – to trigger internal development processes that can operate only through interaction with people. Interaction with others supports or 'scaffolds' the development of these competencies" (Nyhof-Young 2000: 479). The concept of scaffolding is taken further by Greenfield (1999: 118) who states that, "when a teacher closes the gap between task requirements and what the learner can accomplish on his or her own, this process of collaborative work between teacher and learner often advances the learner's skills as well as accomplishing the task at hand".

The benefit of learning during the oral assessment also permeates to the passive observer. Just by sitting in on the different oral assessment sessions, I too learned about the subject matter in the various courses. This was a real bonus as the discussions were not only enlightening but also very interesting and I found myself looking forward to the following session not only for the purposes of my research but because I was keen to learn more about the subject. In fact, after listening to a few candidates' assessment in each session, I understood the section sufficiently to determine whether the subsequent candidates' responses were correct. If the oral assessments could teach me (whose only experience with Science is restricted to Science subjects studied at secondary school many years ago) the benefits to students currently studying the course (and perhaps just out of secondary school) must be remarkable.

Instead of revisiting their answers to previous questions, many students at MLST used their sum-up time to *ask the assessors* questions. One student remarked, "*The discussions were so interesting and we could ask our lecturers questions*". Students benefitted from these discussions and regarded them as "*valuable learning experiences*" as they were able to "*chat on a personal basis*" with the assessor. Students asked their assessors to apply the legislations or problems they were questioned about to see how they related to situations in South Africa. After being questioned on drought-ridden Mozambique and the effects of El Ninio, Simphiwe asked: "*what measures can South Africa take to prepare for the effects of El Ninio so that we can prevent the situation taking place in Mozambique?*" The assessor talked very briefly and when the eager students began asking more questions, he promised the group that he would "*continue the discussion in class*". As Killen (2000: 19) says, "learning comes alive for students when it comes through experiences they find meaningful and valuable" (*see also* Killen 1998).

During an Air Pollution oral, following on questions pertaining to legislation in the southern basin, Rakesh, a student who lives in Merebank (in the southern basin) asked, "*what is being done presently in terms of air pollution legislation in the southern basin?*" The assessor answered briefly and then reminded students that he would discuss this topic further in class the following week and directed them to "*read the newspaper articles that I've placed on reserve so that we can have a good discussion in class next week*". One student said, "*I have often wondered about questions after we did a lecture in class, but I could not ask the lecturer because our class is too big and I am afraid to stand up and ask a personal question, I mean, ask about something that only I am thinking about*". But, when the practical questions were asked during the oral assessments, the other students were very keen to hear the lecturers' response. As Roth (1994: 216) said, "as students pursue these questions of their own interest, they not only learn to gain pleasure from inquiry, they also gain ownership over problems and solutions" (*see also* Lave 1988: 69). There were fruitful discussions between students and examiners and often between the students themselves, and the lecturer had to tell students that they would continue the discussion in their next lecture. A student commented, "*it makes more sense like this, when we can link up our lectures with what we see on the news. It is so important to help us in our daily living*". As Killen (2001) says, "productive teaching occurs when students learn useful things". The learning then was not just confined to what transpired during lectures, but students were excited that "*lessons*" could be learned for "*practical application*" in their lives, or as Lave (1988), and Lave and Wenger (1999) refer to as 'situated learning'. When students can see the relevance of learned material in their "community of practice" they may value the learning more because they know that the knowledge constructed can be applied to solve problems or address situations in their everyday lives. They felt that the orals enabled them to "*bridge the gap*" between the classroom and the real world.

Only twenty one students at UND, and thirteen at MLST said that they studied differently for this oral assessment as compared to a written assessment. They said that they "*did not want to make a mistake*" or "*be wrong*" in front of their lecturer so they read articles and background material. They added that they studied much harder for the oral - they memorised for the written but they "*read to understand for the oral*". Students are familiar with the written mode of testing and therefore regard the oral, which is new to them, as a threat. They sought

comfort in the fact that they could "*look at past exam papers*" when studying for a written examination. They also said that written exams allow you "*to waffle around*" meaning that the examiner will have to look for the 'desired' answer in the mass of information provided by the student. This is not so with the oral exam, because it is a 'live' discussion, and as soon as the student strays from the answer, the assessor will re-direct the candidates' thinking thereby assisting the student to answer more correctly.

Some students were unhappy with their marks and blamed the assessors for being too severe. They later admitted (after some coaxing) that they had not studied thoroughly for the oral and that they had "*spotted*", which meant that they had only studied the sections that they thought would be asked in the assessment. Maclellan (2001: 307) also found that "if students perceive a need to understand the assessment task, they will engage in deep learning but if they perceive the assessment instrument to require rote learning of information, they will be unlikely to engage with the higher level objectives which may well have been intended by the programme of study". Students in round one had heard from students who were assessed earlier that they were asked to start with the section of the syllabus that they understood best or enjoyed the most, and that the session lasted fifteen minutes. They therefore figured that if they learned one section and presented it very well that they would get good marks in the orals. At the oral assessment then, they started off with their "*best section*" but could not answer the follow up questions and therefore fared badly. Memorization or rote learning does not help a student in the oral exam setting, but students' learning habits are hard to alter especially after twelve years of schooling and a few years at tertiary level, their study habits have become entrenched. It is no surprise therefore that they studied for their first oral test in the same way that they do for all their written tests. As Greer (2001: 129) notes that "students develop an approach to learning determined by what is expected of them", and this first experience with the oral assessment would have made them realize that they would have to adopt a different approach to their method of studying. Bell (2004: 15) cautions that Maths and Science "contain a high proportion of conceptual, abstract notions. These notions cannot be internalised in a meaningful manner through the memorisation of verbal formulae. Understanding is essential, and a high degree of cognitive maturity and verbal fluency is required to negotiate and acquire this understanding".

Bradfoot (1996: 30) notes that rote learning or memorising facts for the purpose of an

assessment serves little purpose apart from allowing one to regurgitate the information in a test or exam and "is difficult to retain in the longer term" (*see also* Darling Hammond and Falk 1997). This is not real learning. Glynn *et* al. (1991: 5) regard learning as the "result of an active interaction of key cognitive processes, such as perception, imagery, organization, and elaboration. These processes facilitate the construction of conceptual relations". The purpose of assessment after all, is not just to give the student a score that will allow him or her to pass or fail, but it is also to allow the student to learn. So, as Brown *et al.* (1997: 7) said, "if you want to change student learning then change the methods of assessment". Assessors were elated that the oral assessments "*provide a good learning opportunity for the student. It also allows the examiner to learn about his or her teaching methods. The lecturer is alerted to sections that were poorly taught or misunderstood. The lecturer can then change his or her approach to these sections*". One assessor commented that "*the students' responses give me a clue as to how they learn and whether they have understood the lesson in class*". Glynn *et al.* (1991: 5-6) add that "the student's prior knowledge, expectations, and preconceptions determine what information will be selected out for attention. What they attend to determines what they learn. As a result, no two students learn exactly the same thing when they listen to a lesson, observe a demonstration, read a textbook, or do a laboratory activity".

The oral assessments by virtue of interactive nature allows the assessors insight into how students learn. McNiff (1988: 84) agrees that "students can be the most critical, and also the most rewarding of monitors". Although lecturers often ask their students whether they have understood the lesson, the reactions may not reflect the true state of understanding among the students. Educators often rely on the Quality Assurance mechanisms at their institution coupled with student feedback questionnaires to inform them about their teaching methods and styles. But, these mechanisms only give a very general picture of the scenario. The interaction during the orals though enables the examiners to draw conclusions based on their interaction with each of their students. This is a very comprehensive way to critique one's method/style of teaching. The educator can then make the necessary adjustments for the benefit of the students. Sometimes a whole section may need to be re-taught if it becomes apparent during the oral sessions that this section was very poorly understood by the majority of the students, or the lecturer can elect to teach the section to the group that did not understand.

Anonymity versus Face-to- Face Interaction

The majority of the students felt that mixed-mode assessment is a "*great idea*" as it "*tests two completely different sides of one person*". By this they meant, that the interactive nature of the orals balances out against the anonymous, solitary written assessment. As one student said, "*I can talk my head off in the oral and write without anyone knowing my thoughts or what I am writing in the exams. My lecturer can then give me an average of the two marks. It's like Jekyll and Hyde, it's great!*" Joughin (2000: 5 6) also found that in written assessment, students were prepared to express ideas which they knew they did not understand and that they could remain quite remote from what they wrote, but in the oral exam, by its very nature, they had to take ownership of the words that they spoke. This has implications in terms of the anonymity in written exams as opposed to the face to face interaction in oral exams. Students 'hide' behind the fact that they are 'unknown' to the assessor in the written exam, but in the oral exam, "*you have to face the examiner*", there is no anonymity.

In response to the question on the effect of examiners' knowledge of the student (*Appendix H*), some said their knowledge of a student had no effect on the assessment, while others responded that it helped them to draw out the quieter students and to get them to participate and answer, and to challenge the students who knew their content to think deeper. The anonymity afforded by the written assessments helped to ensure that examiners were not biased in their marking of the scripts, that is, they would not favour one student over another because the students were not identifiable. But the assessors also felt that this anonymity worked against the students as well. Students who had a poor command of English were assessed in the same way as their peers who were very proficient in English, in other words, no help or consideration was given to these students who perhaps knew their content but could just not express themselves adequately in English. Also, examiners could not tell whether students had misunderstood the question or just simply not studied for their test. Examiners were adamant that "*in the written examination, the students can only be assessed on what they have written on the script but in the oral, the examiner can assist the students to understand the question, allow them to restructure their answers by providing helpful cues to ensure that students do not go off at a tangent giving unrelated information to a question*". Seddon and Papaioannou (1990: 2) agree that in both the oral and written formats, 'the assessment of both forms of answer may not be determined solely by the level of knowledge

or degree of understanding. In each format, it may be determined also by the student's ability to understand the question and communicate the answer' (*see also* Papaionnou 1989) . The face-to-face interaction in the oral allows the examiner to elicit appropriate responses from the student.

When asked to compare anonymity in the written assessment to face-to-face interaction in the oral assessment, examiners and co-examiners at UND responded that "*it is easier to guide the student in the right direction in the orals*", and that "*although the written assessments are theoretically fair to the students, it could be to their disadvantage as the examiner cannot take any extenuating circumstances into account*". Assessors at MLST felt that in the oral, "*one can support nervous students*". They added that "*the orals give you a different perspective on your students, particularly in their ability to articulate and present arguments*". In the written, "*I see the work and the student separately, this disadvantages students who don't have good English skills*" - this contrasts sharply with the view that ESL students in particular are at a disadvantage in oral assessment because of their poor English and therefore presentation skills. One generally assumes that because an oral format of testing is being used, that students who cannot articulate their thoughts clearly would be disadvantaged. This was also the concern raised by Holland (2001:4) who asked whether "ethnic minority students are rewarded more in anonymised systems of assessment". One of the assessors said though that because her "*classes are small*", she can recognize students handwriting, "*so there's no anonymity and therefore no difference between the oral and the written*".

Comparing the effect of anonymity in the written assessment to the lack thereof in the oral, it is apparent from the results of this survey, that anonymity does not really benefit the student, and especially the student with poor English skills. The statement made by 20% of the examiners that anonymity leads to objectivity is supported by Brown *et al.* (1997: 234-235) who says that "anonymous marking is increasingly fashionable on the grounds that it minimises the effects of previous knowledge of the student's performance. It reduces the effects of stereotyping, halo effects and prejudice", but the point about disadvantaging students who "don't have good English skills" is very relevant in the present South African educational scenario. Goodwin and MacDonald agree that authentic assessment of what a person thinks, feels, knows and is able to do is unreliable when the language of assessment is

different from the language of the person under assessment (1997: 211). So, assessing all students alike, without taking into account the proficiency of the student in the language of assessment, could have far reaching negative effects for the student who is not proficient in English.

The Group Oral Assessments

Of increasing importance is a student's ability to work as a member of a team and to communicate scientific information and ideas not only to other scientists but in a non-technical way to the lay-person (Ingham and Gilbert 1992: 29). Students and assessors alike echoed the importance of being a team-player and to be able to talk about their subject. As one student said, "learning to talk about a subject is much higher knowledge than writing about it" (Butler and Wiseman 1993: 348). Participants in the project concurred that "*the oral situation requires you to think and respond on the spot. You have to come up with the information as you are asked*," whereas in the written, "*you simply have to answer the one question. No one can come in and throw you a curved ball!*"

Boe (1995: 9) said that the group oral exam tends to have significant positive effects. Assessors in round three of the assessments agreed with Boe's findings that it: reduces anxiety, provides growth through diversity, applies in many disciplines, develops consensus building and it promotes critical thinking and critical analysis. One hundred percent of the assessors said they preferred the group oral over the individual format because "*in the group, students support each other and assist others to answer by providing clues and non-verbal messages of support*" and "*the group assessment provides a good learning environment*". Since students chose their own groups, it is safe to assume that they would have chosen to be assessed with their peers that they were comfortable with. The support provided by the group may have helped students to overcome some of the tension that they generally experience under test conditions. Bensoussan and Zeidner (1989: 51) found that when students arranged to be tested together, they were more relaxed. The group support permeated the whole assessment: firstly, during the discussion (preparation time before they had to answer), secondly, while they were answering by providing little reminders with verbal and non-verbal cues and gestures, and thirdly, in the discussions that followed the assessment.

Ninety percent of the students favoured being tested in a group rather than being assessed individually. This ninety percent included all the ESL students in the sample. Respondents cited the fact that they could "*support each morally and assist each other*". Students agreed that "*if a question is posed and you don't answer and no one else in the group knows the answer, there is no pressure on you. Nobody points at you*". As Boe (1995: 5) found, the group "provides for individual input, reflections and verification and inter- and- intra group support". The group setting allows candidates to reflect on their responses, add to their peers' answers and verify comments made. Students felt that if they were in a group, they would be "*confronting*" the examiner/s collectively and not as individuals. They therefore felt 'protected' in the group setting.

Ten percent of the EFL students preferred individual assessments to the group orals because "*some students in the group talk too much and others don't get a chance to say everything they want*" and "*I felt I had to answer quickly because the others were just beating about the bush instead of getting to the point and answering the question*". These EFL students wanted to get more "talk time" as they felt that their contributions were more "*to the point*" whereas the ESL students were just "*wasting time with trying to express their answers in English*". An examination of the assessment rosters revealed that these EFL students had not filled in the assessment roster because they did not attend lectures on a regular basis. They were therefore unaware that they had to choose their own assessment groups. They were then assigned to a group formed by their lecturer. It is therefore likely that these students were peeved about not being assessed with their fellow EFL peers as they felt alienated within the group that they found themselves in.

Other reasons forwarded were: "*the weak students can lower your marks*", "*they will wait for you to answer, so they can hang on to your answer and make it their own*" or "*they might give foolish or hilarious answers and you end up looking stupid*". These students were obviously afraid that one mark was being assigned to the group as a whole. Although they were explicitly told that each candidate would be scored individually, students who did not attend classes were unsure as to how this would be practically implemented. They just assumed that because they were part of a group that the contribution of the others would reflect on their performance and "*influence the judgement of the examiners*".

Assessors were unanimous that the group orals was "*the best of both worlds*", that is, they "*could interact on an individual basis*" with their students while the students in turn "*hung on to the moral support of the group*". One assessor commented that "*the camaraderie and support was incredible, there was a real buzz in the room as the students discussed the questions. When students were answering, the non-verbal and often verbal support from the others showed real team spirit*". The collaboration or interaction that occurs between the educator and student, and between student and peers in the oral assessment context, can aid the student's "development" (Vygotsky 1978: 86) when the student learns from this interaction. The presence of the assessor in the oral assessment sessions ensures that students are not influenced by "less competent" (Tudge 1993: 158) peers as the assessor would correct the student or re-direct student thinking so that the correct response is elicited. Students also understand then, why a particular response was regarded as incorrect and how questions posed in a particular manner should be answered.

Students appreciated the discussion time allotted to them in the structure of the oral assessments in round three. "*It is easy in groups, because you discuss the questions first, so when you all make contributions to the answer it's easier than when you are alone*". Unlike in the individual assessments where each student worked independently, in the group orals, it was a collective effort as the members discussed the answers as a group. They were able to consolidate their ideas, thoughts and knowledge in formulating a response to the question. This "peer conversation type of assessment" was also advocated by Dykstra-Pruim (1997: 20) so that "students can support each other". Candidates were also able to divide the question and sub-questions as they liked, so that each student could choose to answer the sections that he or she felt most comfortable with. They could therefore also choose the order in which they wanted to answer the questions. "*You immediately feel more secure when you are facing the lecturer as a group. If you forget a word or you can't say out what you thinking, you know your friends will help out*". They sought comfort in the fact that their friends would help them to express their answers clearly and that "poor expression in English" would not mean that their answers would not be understood. "*The group members help you if you forget and they motivate you to be more confident and relaxed*". Being assessed with friends helped them to relax. The help and support afforded by the group helped them to relax further.

Nervousness, just the fact that one is being assessed, not having sufficient rest or sleep and

other factors can cause one to forget information. "*It really helps when the other group members are saying points and you start recalling points you have forgotten*"
Students benefited from the group experience in that they were prompted by each others responses and could add on to information or responses of their team mates which made them feel like valuable members of the group.

The interaction afforded by orals and the support offered by peers, allows participants and especially the assessors to determine the tone or degree of formality of the assessment. "*It's like having a discussion, even the lecturers didn't make you feel like it's a test*". Adopting an informal tone goes a long way in helping candidates to relax and manage their tension and nervousness. Students were in agreement that the group assessments were well controlled and skilfully conducted by the examiners. "*I was keeping quiet and listening to the group members, you know, learning from what they were saying, but the examiner made me talk too*," said one student, adding that "*lucky he did that, otherwise I would have a zero*". Another student did not agree though and felt that "*I don't know why the examiner had to bother with the one's that didn't want to talk, they should concentrate on those who have something to say*". Group orals can fail shy students if the assessments are not conducted properly because the introverts will generally remain quiet, not wanting to draw attention to themselves while the extroverts monopolise the situation. The examiner has to ensure that all candidates get an equal opportunity to talk or demonstrate their knowledge.

One assessor was particularly keen on using the group oral to "*teach difficult sections*" of the syllabus. He said that he would give his students "*all the reading material well in advance of the oral and they would have to prepare specific sections for the assessment*". Each group would be given one section to prepare and the class would have to read the relevant material before each assessment session. The whole class will attend the assessments. In this way, he said, "*students will be encouraged to read, something they do not do. They will have to work in a team to understand the notes and prepare for the assessment. During the assessment, the students will, in essence be teaching the class. Reading, teamwork, peer-teaching and assessment in one? I'd say it's a pretty good deal!*" In fact this is exactly what Butler and Wiseman (1993: 332) did in their *viva* in order to avoid the assessment "merely serving as an opportunity to regurgitate ideas and material" already discussed by the lecturers. Hay (1994: 49) agrees that "if students are assigned topics which mesh closely with the course content

desired by an instructor, some advantage can be obtained. Carefully researched and delivered student presentations may be used as an examinable supplement (or perhaps even a replacement) to other material presented by academic staff in a course". He added that this would provide "a range of perspectives on material which one staff member may be unable to replicate" and that "staff and students can be seen working collaboratively towards educational goals whilst students are provided with an opportunity to develop vital communication abilities".

Assessors were especially pleased that the group orals served to address "*the issue of time*". Assessing more students in less time was one of the reasons for exploring the group assessment route. One examiner commented, "*now we have the benefit of the oral in a shorter time. We were all done before tea!*" The group oral assessments cut the assessment time considerably from ten minutes per student in the individual oral assessments to twenty minutes per six students in the group assessments. This is a total reduction of forty minutes (one whole lecture period) per six students (a saving of just over six minutes per student) from the individual to the group oral format. In my experience with marking written assessments, I find it difficult to mark six written scripts which have mini essays or short answers in just forty minutes. This comparison between assessing in the oral and written formats, reveals that time need no longer be an issue when conducting oral assessments. In fact the group oral is a "useful and economical way" (Grant 1996: 15) of carrying out oral assessments. One may argue though that the written examinations are less time consuming to conduct. While this may be true, one must bear the following in mind. Marking of the individual scripts is very time consuming and usually has to be done in the assessors' own time, that is, outside teaching time and normally after working hours. Oral assessments are assessed while they are being conducted.

Written assessments do not allow the examiner to tailor the assessments to suit individual students. Assessors cannot set separate questions or different levels of questions on the same paper for the diverse talents in the classroom. This is very easily done in the oral assessments, as Deale (1975: 79) said, "the examiner can use the flexibility of the oral to discuss matters in depth with an able pupil, to tease out the meaning of an obscure statement, to probe for the reasons for a conclusion – in effect, to test understanding in the fullest sense, while retaining the ability to adjust the level of his questioning to children of higher or lower ability". One of

the assessors agreed, saying that "*this was the highlight of the orals for me*". Another added that "*our large mixed ability classes do not allow us to treat our students as individuals, but the oral allowed me to conduct private assessments with each of my students. It was a real eye-opener and fun too!*" Assessors welcomed the interpersonal benefits that they derived from the oral assessments (*see* Nelson 1986: 70). In the course of everyday lectures, especially in large classes, students and lecturers do not get the opportunity to interact on a personal level with each other unless there is a query or a problem to be discussed. The oral assessment (whether one on one or in a group setting) enables direct interaction and therefore dialogue between the examiner and the candidate. The student and lecturer may come to regard each other differently after the conversation afforded to them by the oral assessment situation. As Nelson (1986:70) so rightly said, "the most unexpected result of holding oral exams is an improved relationship with students as individuals. After all, how else would you ever find time to chat [privately] with each and every individual you teach?"

In the written examinations, students cannot seek help from the assessor, the invigilator or their peers to understand questions on the paper or to seek guidance on how to respond to a particular question. In the oral exam, however, assistance is readily provided by assessors and peers. So, while written assessments may be more cost effective in terms of time to *conduct*, oral assessments are more economical to *assess*.

WEIGHTING OF MARKS

There was no consensus on the weighting of the oral and the written marks. Some felt that 50% for either mode was too high and that the students "*could end up failing*", others felt that both should be assessed out of 100 and then divided by two (which actually equals a 50/50 weighting). Of course, combining raw scores in this way does not give them equal weighting. The real weightings are in proportion to the standard deviation of the two sets of marks. Other assessors felt that there should be no marks for assessments. Many of the overseas institutions that I surveyed, do not assign grades to their students. A pass or fail grade is assigned as they do not see the value of quantifying by how much a student has passed or failed an assessment. Of course, if we were to adopt such a strategy here, we would need to re-evaluate the whole notion of grades and points of reference (*see* Sieborger and Macintosh 1998: 13) and it would mean overhauling the whole system of evaluation. The criteria used to

determine 'pass' and 'fail' would have to be explicit and public so that assessors cannot randomly decide on a mark. Students would also have to be familiar with the criteria to understand exactly what is expected of them and how they will be assessed. Assessors in my project were unwilling to explore the route of "not assigning grades" because of the bureaucracy that surrounds any change in assessment at the institutional level. They were also not in favour of this method, because they had to "*produce marks at the end of the term and a simple pass or fail will just not suffice*". I was therefore not able to investigate the abandonment of grades or marks practically.

In some professions, graduates will need better oral skills, in others, better written skills will be required, and in others still, both oral and written skills will be of equal importance. We also need to cater for the diverse and multilingual student population at tertiary level in South Africa. Assessment has to be fair and not advantage one group over another. Assessment cannot be decided on the basis of different sets of criteria and division of marks for all EFL and all ESL students as this ignores the individual capabilities within the above classifications and stereotypes them as having the same capabilities in terms of language and performance. This is indeed a very naïve approach.

Some may argue that the ESL students should be given a 100% oral assessment if one takes their disadvantaged educational backgrounds and low levels of proficiency in English into account. Others may argue that the majority of the present students at tertiary level have been schooled primarily in the written rather than in the oral techniques and that they would be disadvantaged by the 100% oral examination. Of course it would lead to total chaos and discrimination if ESL students were given a 100% oral exam while the EFL students were given a 100% written exam – and, anyway, even if specific criteria were used to determine language proficiency, assessors would have to ensure that students were monitored on a regular basis because these levels of proficiency change depending on various factors, like for example, exposure to the language, and practice in speaking English to name just two such factors, that is, ESL students do not remain ESL all their lives. Also, a 100% oral would lead to a neglect of the written which is vital not only at tertiary level, but for life in general. Ignoring the written would be irresponsible and unacceptable. A split in the oral/written marks, be it 20/80, 70/30 or 50/50 would suit some and not the others. Those students who have strong oral skills would obviously prefer the oral marks to have a higher weighting. This

would apply to students with strong written skills as well. One examiner proposed that since "*the oral assessment is far shorter and covers a smaller section of the work, the marks should be weighted proportionately for each mixed mode assessment, depending on the amount of work tested in oral and in writing*".

Weighting of the oral and the written marks must therefore be determined taking the above into account and must be tailored to suit the population. On the other hand, students could undertake both the written and oral written forms of assessment (which would test the same material) and the final mark could be the higher of the two. In this way, students could get the benefit of the mode that they are most competent in, and, assessment would actually be decided on an individual basis without compromising another individual.

SUGGESTIONS FOR CHANGE

The mixed-mode assessments were hailed as "*a win-win situation for the students. Yes, there are challenges, but the student who can't write well can fall back on the orals, and the student who can't talk well can fall back on the written marks*". Four of the assessors at UND and three at MLST agreed that the oral and the written test different skills and that "*a combination of the two gives a more complete picture of the student's abilities*". They said that in a written test, the student "*answers the question*", but in an oral, "*one gets an idea of the student's overall knowledge and impression of the subject*", so, "*it would be advantageous to combine the two modes as they complement each other*".

One hundred percent of the students agreed that the two modes "*test different skills which are necessary in the workplace*" and that "*those who express themselves better orally, will do better in the oral assessment, and those who are having better writing skills, will do well in the written test*". While participants praised the mixed-mode assessments as testing different and necessary skills, constructive suggestions were offered for the enhancement of the assessments.

> "*In the written, all we test is the ability to remember. It is through talking that one can appreciate the depth of knowledge that a student possesses. Like good conversation, orals definitely require more time.*"

"The interaction provided by the group orals is wonderful. The students are communicating with each other and the examiner. There is a lot of dynamism at play. To get the most out of this, more time would have to be devoted to the orals."

"I need more time to give a good account of myself."

"Maybe the time allocated for the whole test and for preparation, answering and recap should be longer."

From the excerpts above, it is evident that time was an important issue for the respondents. I had expected that the assessors in particular would be eager to reduce assessment time especially in light of their earlier criticism that "*oral assessments are time-consuming*". Nine of the assessors felt that assessment time should be longer. This suggestion corresponds with the assessors previous comments that the oral assessments "*allow dialogue with your students*", "*it is a good indicator of understanding and thinking*", "*it is definitely a good learning experience*" and "*it is much better than marking written tests*". The 'informal' nature of the assessments did not only allow the students to relax or to reduce anxiety levels, it also produced the added benefit of leading to improved relationships between students and assessors. They were able to chat to each other face-to-face on an individual basis, something they "*do not get the opportunity to do in our large classes*". Also, when assessors were trying to get students to relax, they chatted about sport, programmes on television and other general topics of interest. Students were elated that they could "*chat*" to their lecturers "*as a person*". Students and assessors came to regard each other differently after the orals, they had established rapport. The orals they all agreed, led to "*improved relationships*" where students came to regard their lecturers as "*people we can talk to*" and lecturers "*understood our students better*". For some of the assessors, the oral assessments were the first time that they heard some of their students speak. Students may be intimidated in the large class set-up for various reasons and "*since our hectic schedules and large classes do not allow us to interact with each of our students on an individual basis, we have never heard some of our students speak*". Interaction during the oral assessments "*were a real eye-opener. I mean, just because a student doesn't answer or ask questions in class, doesn't mean that he doesn't know his stuff, it simply means that he does not want to talk in a room of two hundred strangers! I was*

really impressed with some of my students. I would not have been aware of the range of talents in my class had it not been for the orals". It was no wonder then that assessors suggested that the time for the oral assessments should be lengthened. Since the length of time that oral assessments take, has often been cited as a disadvantage of conducting oral assessments, I was surprised when the assessors suggested that the duration of oral assessments be increased.

One of the assessors though felt that fifteen minutes was adequate, "*or else the assessments would take up too much of time. Besides, one can get a lot of assessment done in fifteen minutes!*" It is a really commendable that after having done the orals and noting the benefits of this mode of assessment that the assessors were keen to lengthen the assessment sessions to derive maximum benefit even though they felt that the orals "*take up a lot of time*". Nutta and Pappamihiel (2004: 3) also noted that while some alternative forms of assessment can be time consuming, they are worth the effort when working with children who often have high anxiety levels under traditional testing situations.

The majority of the students, that is, fifty one in round one and seventy one in round two felt that fifteen minutes was adequate for the oral assessment. They agreed that, "*lecturers can soon see how much you know*" so there is "*no need to have drawn out sessions*" where "*you and the examiner just get tired*". I must point out at this stage, that I was concerned about the issue of time and the impact the assessment sessions would have on the time-tables and schedules of all the participants when I asked them to participate in my project. Apart from the assessment sessions, I was also asking participants to put in additional time to answer the questionnaires and to participate in the focus group discussions. It is not surprising therefore that the majority of the students did not want to increase assessment time.

Seven students at UND and ten at MLST that felt that the duration of the assessments needed to be longer. As one student said, "*fifteen minutes does not compare to one or two hours for the written exams*". The candidate's perspective on assessment time is well taken especially in light of the fact that they were being subjected to two modes of assessment. Students were concerned that "*the time was too short to say everything*" *they wanted to*" and that "the *assessment did not cover the whole syllabus*". In light of the participants' comments then, integrated into a formal assessment programme, the duration of the assessment sessions

would have to be reconsidered.

Four of the assessors preferred that "*the oral and written assessments be conducted on the same day*" since both modes were "*testing the same material*" and they did not want students to have "*more time to prepare for either of the modes of testing*". "*Let's compare apples with apples*" said one examiner. While another added that "*it would be easier to consolidate the marks and the whole process*". Five assessors were opposed to having both assessments on the same day. The comment made by one examiner seemed to sum up the others'thoughts, "*it would be hectic to invigilate the written test and then conduct the oral tests on the same day. What will we accomplish being so tired? And the students, how will they cope doing two tests on the same material in one day? It just sounds crazy to me*". One assessor could not decide on which scenario he preferred, saying that "*I'll go with whatever my students choose,*" meaning that he would go with the majority decision.
There was general disagreement among students on this issue:

> "*Two tests on one day? That's insane. What if someone is having a 'bad test day'? He will fail both tests? It is not fair*"
>
> "*At least we will be able to recover and study harder for the next one if we write on different days*"

Twenty percent felt that "*this is a good idea. We'll be over and done with it on one day!*" In the absence of consensus, resolving such an issue will require that both assessors and students will have to agree on a workable format which may differ from one situation to another. Students and assessors alike felt that although the individual oral assessment is a "*useful assessment tool*", the group oral "*allows more interaction between students and not just between examiner and student*" making it "*more productive, not just for the purposes of assessment, but for constructive discussion and learning as well*". One assessor commented that "*the group orals offer far more benefit over a shorter period. It just makes more sense to adopt a method that gives you more value*". Students were adamant though that the group orals would only be suitable if they "*are allowed to choose our own groups*" otherwise it would have "*the same effect as being tested in class*". Participants agreed that the individual oral assessments could be useful in subjects where individuals had to conduct experiments or

"*in assessing very shy students*". 20% (two) of the assessors at UND added that they would make the assessments "*private*" because "*students who have listened to three or four students before their turn are at an advantage*". Fortunately, with the revised format adopted at MLST, this would no longer be the case.

Suggestions were made regarding the *nature of the groups* as follows:

Homogeneity

Homogeneity of the groups was also cited by some of the students as being an important factor in deciding group make-up. Students who classified themselves as EFL students, wanted to be assessed together because they did not want to "*be held back by poor English speakers*". The students that classified themselves as ESL wanted to be assessed together so that they could "commit language errors" without being "*mocked or laughed at*" and they could "*support each other during the orals*".

A group of five male students jested that they too preferred to be assessed in a homogenous group because they did not want the females to be present when they "*could not answer the questions*". "*They will think we are dumb and they will not go out with us*" said one student. Ten African female students in round two preferred to be assessed in a group of African females only as they come from a patriarchal society and they felt "*awkward*" and "*overshadowed*" by the males. They did not "*feel comfortable participating in a group discussion with them*" and did not want them present at their assessment sessions. Rockhill 1994: 245) also noted the "male/female differences in everyday communicative practices" which are "constructed culturally and socially".

Size

Having taught in a multicultural environment for many years, I am aware of the problems that group orals can pose, and as Grant (1996: 15) cautioned, "assessment in groups can bring its own problems, since the size of the group, the selection of the group members, and the selection of the assessors can all influence the outcomes of the assessment". It is for these reasons I had advocated that students select their own groups for the assessment sessions so

that they could keep the groups homogenous or heterogeneous as they preferred.

There were no other suggestions for change, but one student suggested that "*coffee and biscuits would really help me to relax, you know, make me feel at home while I'm being assessed!*"

VALIDITY AND RELIABILITY, CONSISTENCY AND COMPARABILITY

Revisiting Killen's (2000: 18) eight principles (as explained *on page 37* in *Chapter Two*) to which assessment within an Outcome-Based System should conform, the following discussion attempts to show how the oral assessments in this study comply with these principles. The first two principles, *viz.* that the assessment procedures should be valid and reliable have been addressed in *Chapter Two* and under the heading, *Data Triangulation*, below. Principle three refers to the fairness of the assessment. It was precisely for this reason, to ensure that the assessment procedures were "not influenced by any irrelevant factors such as the learner's cultural background", that the oral assessments were introduced. This study was based on the premise that the ESL students in particular experienced difficulties with writing in English. The incorporation of oral assessments into the present system of assessments was an attempt to level the playing fields for students who come from diverse cultural and language backgrounds.

Communication within one's field of study, that is, being able to communicate with other professionals, stakeholders and clients was hailed by educationists as an important requirement for graduates in Science. Oral assessments help develop communication skills as an "important skill" for students to learn. In keeping with principle five, the oral assessments helped students to learn more about the subject matter and to get to know their lecturers better. The assessors in turn learnt about their methods and styles of teaching from the students. They also learnt more about their students. Students and assessors therefore learnt something they did "not already know". Probing during the oral assessments enabled the assessors to "stretch students to the limits of their understanding and ability to apply their knowledge" of a particular section being tested. The assessments were "comprehensive" in the sense that students were tested in depth on content, and they were "explicit" in that students were assisted in understanding the questions if they need any help. Both assessors

and students could seek clarity from each other so that meaning was "explicit".
The oral assessments definitely provided many opportunities for students to "learn things that are important" (*see Chapter Five for detailed discussion*), this was in fact one of the benefits of doing the oral assessments. The "individuality" of the students was maintained even in the group assessments where students were scored as individuals within a group setting. Assessments were conducted with each student in turn, individually, in other words, each student had an individual audience with the assessors.

Data Triangulation

Consistency and comparability in my study was achieved by data triangulation. Data were gathered on different issues relevant to oral assessments by using multiple methods of data collection, *viz.* questionnaires, focus group discussions, observations, and the assessment sessions. Participant responses were reported verbatim so that they "accurately reflected the real situation" or the "true" responses of the speaker (Guion 2002: 1). My observations together with the analyses of the (student and assessor) questionnaires, and the (student and assessor) focus group discussions provided the credibility, dependability (*see* Lincoln and Guba 1985: 300) and rigor ensure confirmability of perspectives on the different issues examined. The closed structure of the assessments (both in rounds two and three) of the assessments with specific time frames for each segment of the assessment helped to regulate the assessments, keep them uniform for all the candidates and ensured consistency of the assessments. Due to the pre-determined questions, the specific time frames, and the organized nature of the oral assessments, an audit (*see* Lincoln and Guba 1985: 317) of the assessment process confirmed dependability of the assessments. The participants were unanimous that the oral assessments provided clarity all round and led to improved comprehension and understanding for students and assessors alike. The orals provided definite benefits in terms of learning for the students and the assessors (and myself as observer). Collaboration and interaction provided by the orals led to improved relationships between students and assessors. The group orals successfully addressed the issues of reducing time while: maintaining the benefits of individual assessments, reducing anxiety by virtue of the verbal and non-verbal support of the group, and promoting learning.

HOW ACTION RESEARCH HELPED SHAPE THE ASSESSMENTS: AN OVERVIEW

> Action research implies adopting a deliberate openness to new experiences and processes, and as such, demands that the action of educational research is itself educational. By consciously engaging in their own educational development, teachers gain both professionally and personally; and it is this personal commitment that counts in the process of human enquiry. Without personal commitment, teaching is no more than what appears on the curriculum, and learning the product of a schooled society. For if we as teachers are truly to fulfil our obligations as educators, then we must accept the responsibility of first educating ourselves (McNiff 1988: 9)

Good relations were fostered and built among participants. Collaboration was very successfully achieved in this study with the participants from different backgrounds and indeed with different aspirations and expectations, working in harmony with each other. The "personal commitment" from the assessors went a long way in ensuring the successful administration of the assessments. The students too committed themselves to the process when they realised that the oral assessments would form part of their year mark. Nyof-Young (2000: 488) explains that "participants in an action research group learn both socially and individually. Their learning outcomes are a function on interaction and involvement". As one assessor commented, "*yes, we have educated ourselves, not only about oral assessments, but about our students too!*" Assessors were pleased that they had the opportunity to "*interact*" and "*chat*" with their students "*on a personal basis*", *something we don't get a chance to do in class. We could look past the reg. numbers and interact as two human beings* ". They felt that "*even the students got to see us in a different light*". In a formal classroom setting, "*the students formulate opinions about their lecturers as we do about them. We rarely have the opportunity to meet the person behind the face or script, but the orals afford us this opportunity to get to know each other*".

Some felt that the oral assessments should be held early in the year so that "*lecturers and students can get acquainted*" and "*barriers can be broken down*". They added that "*this will set the tone for personal interactions*" during the year. "*Orals held again later in the year*

will help us maintain the interaction and strengthen relationships, unless of course, we just cannot get along with each on a personal level!" jested one assessor. To which he quickly added, "*but the nature of the assessments does not allow for personal idiosyncrasies to filter through. It just allows us to chat on a professional level about subject issues*". Assessors were unanimous that they "*learned more about our style of teaching*". They agreed that the oral assessments allowed them to "*evaluate*" and "*critique*" their method or style of teaching in that they "*were able to discern which sections needed to be re-taught and which sections were indeed well understood by the students*". "*It's like a quality assessment of your teaching, without having to fill in countless forms,*" said one assessor. To which another added, "*these oral assessments have far more uses than initially meets the eye!*"

After the first round of assessments at the University of Natal, adaptations were made to address the following concerns raised *via* the questionnaires and focus group discussions by the students, the assessors and from my observations. The compilation of a question bank in three categories (short, medium and long questions), required a lot of work on the part of the examiners. Examiners felt that it was easier to just set a written test, whereas, the question bank required them to come up with a "*whole store of questions*". Because assessors drew from a bank, the question posed to the student, was basically the luck of the draw and students thought this was unfair as the questions were not standardized. They complained about the level and type of questions asked to the various candidates. Grouping of the questions proved to be a real problem for the assessors. They had to remember to ask the student a 'short', a 'medium' and a 'long' question so that they could arrive at a total of 50 marks per candidate and after a few candidates, this proved to be rather "*cumbersome*" and "*frustrating*" as they had to "*juggle many different thoughts and calculations in my head while the student was talking*".

Fifteen minutes or more per candidate meant a lot of hours of assessment for the assessors. This led to them being exhausted at the end of the day. There were also complaints about the breakdown of time for each student. Some students were assessed for more than fifteen minutes which lengthened their assessment time and therefore the session. The other students were very aggrieved by this as they felt that they were disadvantaged in terms of time. Also, the time spent on the short, medium and long questions differed from student to student because assessors divided the time at their discretion.

In terms of answering the questions, students were very unhappy about having to answer the question immediately without having any time to prepare a response. They complained that they were not able to write down their thoughts or plan their responses on paper before answering. Not having the questions in writing or all at once, meant that students could not choose the order in which they would have liked to answer the questions. They had to answer the questions as they were posed to them. Students complained that they were only given a few seconds to plan their response to question one and thereafter, they had to answer immediately without any preparation time. Assessors had to repeat questions when students did not hear the question posed or they just needed to be reminded (for various reasons) of the questions asked - because students did not have the questions in writing. Students were upset that they did not have the opportunity to go back to correct their mistakes or revisit unanswered questions before their session ended. Some of the students complained about having five other students present while they were being assessed, they felt that there were "*too many others*" in the room.

In accordance with an action research approach, the second phase of the assessments were restructured taking into account all the comments and criticisms levelled against the assessments at UND. In the individual oral assessments (in round two) at MLST then, the oral assessment was divided into two parts, a morning session and an afternoon session. This was done to give all the assessors concerned a long break between the two sessions. Also, the students were divided into the two sessions, so the students only had to wait for the duration of the one session leaving them free for the other session. Students had to wait in a room adjoining the assessment venue, so that contact between examinees would be minimised or eradicated thereby ensuring that students would not be privy to the questions asked of the others. The concern did arise that students would "*wander about and come into contact with other students who had already done the assessments*", but as one student said, "*there's no way, man, that I'm gonna' tell someone else what questions I was asked, so that he can do better than me. I mean, that would be, like, just foolish*". While I cannot vouch for the fact that students may not have shared information, we did not confine students to the exam venue.

The examiner compiled six questions in total, three for the morning session and three for the afternoon session. The assessors could decide whether they wanted to ask three broad

questions or whether they wanted to break up their questions into a main question with sub-questions. Again, these questions had to be of the same level and type as the questions asked on the written test and they had to be consistent for both sessions. These questions were moderated by the co-examiner. The work of the examiner in compiling questions was drastically reduced in the second round of testing from compiling a bank of questions to just three questions per session. The questions asked were also therefore standardized for all the students. The examiners did not have to search the question bank each time for a 'short', 'medium' and 'long' question as the questions were pre-determined.

The students were informed that they would each be assessed for ten minutes, this reduction in assessment time, was an attempt to address the issue of the length of time that the oral exam takes. The breakdown of the *ten minutes* was explained to the students as follows: *two minutes* to prepare a response to the questions, *six minutes* to answer the questions in any order that they preferred, *two minutes* to recap or come back to any questions that they had experienced problems with, wanted to elaborate on, or wanted to change a answer to. Students could also use the last two minutes to pose questions to the examiners. During the last two minutes of recap, the following candidate was given his/her question and thus began the next student's preparation time. The examiner gave the first student a choice of question 1, 2 or 3 without disclosing to the student what each question entailed. This was merely an attempt to ensure fairness, so that the student would not accuse the examiner of giving him or her a difficult question. Students were given writing material so that they could make brief notes. All the questions were typed and handed to the student for constant reference throughout their assessment. This also meant that students could decide in which order they wanted the questions and they could prepare responses to all the questions posed.

The closed structure of the assessments in round two meant that the duration of the assessments for each student, the division of their time, the uniformity of the questions asked, and the breaks were very structured. Students were pleased that the "*assessments were fair*" as they were getting the benefit of equal time per candidate and that they were asked the same questions. Assessors too were more relaxed as they did not have to "*draw new questions for each candidate from a question bank*" and the "*strict adherence to time helped us to follow the same routine with each student*", making assessment time equal for all students.

After the second round of testing, participants were satisfied with the format of the individual oral assessments. The only concern that was raised was that the oral assessments were still time-consuming in relation to the written assessments. The group oral assessment was therefore designed to address the issue of time. I had to be careful though that the group orals maintained the benefits of the oral while reducing time. The group orals were set up with six students per session. A smaller number of students per group would have negated the purpose of a group oral. Students were asked to choose the members of their group and to fill in their details on a roster one month in advance of the assessments. The assessments were again divided into a morning and an afternoon session. Students for each session were again seated in a room adjoining the assessment venue so that they would have minimal or no contact with the students that had already completed the assessments, thereby ensuring that the students awaiting assessment were not privy to the questions for that session. The examiners drew up two sets of major questions with sub-questions and this was moderated by the co-examiner, so this effectively meant that the examiner only had to compile one question per session per day, a further reduction in preparation time for the assessors.

Each session lasted twenty five minutes. The questions were typed and handed to the students. Students were given writing material to make notes. The allotted twenty five minutes gave each group *four minutes* to discuss the questions as a group, *three minutes* for each student to answer the questions in any order that they preferred (of course, this was the total talk-time allocated per student, it did not mean that the student had to talk for three minutes in a stretch) – this time had to be guided by the examiner, and *three minutes* to recap, ask questions or to address unanswered questions. This effectively cut the assessment time considerably from *ten minutes per student* to *twenty five minutes per six students*. This meant that a class of twenty four students could be assessed in one hundred minutes (ten minutes over one double period) with the group oral assessments as opposed to two hundred and forty minutes (three double periods) with the individual oral assessments. "*that is not bad at all*", said one assessor, "*in a three hour written exam, I can also assess content knowledge of say, thirty students, but not to the same extent or depth that the oral exam allows*". To which another assessor added, "*and not to mention the marking of the thirty scripts after the three hour exam*". Assessors and students agreed that "*improved relationships*" between them as a result of the "*oral encounter*" was a "*real bonus*". A student added that, "*I was not just a reg. number, I was a real face and my examiner had to talk to me, to ask me what I thought, and I*

could give him my opinion. I mean, for that time, he was only talking to me". The participants were unanimous that the group setting provided an ideal platform for learning. Students learned from their assessments, feedback from the examiners, and from their peer's assessments, and they learned more about their lecturers. Assessors learned about their teaching method or style, how students learned, and about their students as individuals.

My study has found that oral assessments can be used in conjunction with written assessments to facilitate comprehension, understanding and expression in students (both EFL and ESL) and assessors without disrupting the present traditional systems of assessment in South Africa. The interactive nature of the oral assessments, prompting and probing by the assessors, and that fact that assessors and candidates could seek clarity from each other went a long way in assisting comprehension and understanding among participants. The assessments were refined after each round of testing until suitable structures were agreed upon. The oral assessments as proposed in my study not only complement written assessments, but also allow for adaptation to the changing demographics of our classrooms.

SUMMARY

Science students in South Africa have traditionally been exposed to written only examinations and they feel comfortable with the following: They can *plan their time* when answering an examination paper. They can decide *the order* in which they prefer to answer the questions. They can *omit* or leave out questions they cannot answer and move on to the next question. They can *revise or change* their answers many times before submitting their script for marking and they need to write down their thoughts when planning their responses.

Considering the above advantages of written assessments, the structured format for the oral assessments as proposed in the individual assessments at MLST and the group oral assessments, allows learners the following: they can *plan their time*, in other words, they are given time to prepare their responses to the questions which are given to them in writing. Students are also given writing material so that they can make brief notes and organise their thoughts in writing if they so desire. They can answer the questions in *the order* that they prefer. They can either inform the assessor that they do not know the answer to a question or they may *seek clarification* or direction from the assessor to enable them to formulate a

response. The assessor also provides leads or prompts to assist the candidate to answer the questions. They may *revise or change* their answers or answer questions that they had earlier omitted in the time allotted to them at the end of their assessment.

Analyses of the questionnaires and the focus group discussions revealed that all the participants appreciated the improved comprehension and understanding between assessor and learner afforded to them by the interactive nature of the oral assessments. They were especially pleased that "*issues that could not be resolved with the written assessments, could be easily ironed out with the orals*" and that "*we could focus on the business of assessing rather than trying to understand each others' lingo!*"
Advantages of the individual and the group oral assessments were noted, but the group orals seemed to be the popular choice for both assessors and learners. Assessors appreciated the team building, camaraderie and moral support that was promoted by the group format. There was general consensus that the group orals were "*economical*" because they "*saved time*" and "*labour*" while allowing them to assess "*many students at one sitting*". Students were pleased with the verbal, non-verbal and moral support of their peers in the group setting. Confidence was boosted and team spirit was encouraged as students "*faced the assessors as a team*" and the oral assessments were hailed as a "*fantastic learning mechanism*" for the assessors and the learners. Suggestions for change were gratefully noted. The needs of assessors, students and institutions differ greatly. It is rather fortunate therefore that the format and administration of the individual and the group oral assessments can be adapted to suit different assessment scenarios or institutional needs.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

INTRODUCTION

"Not 20, not even 10, but ZERO! That's the 'pass' rate for subjects such as English recorded by some KwaZulu Natal Schools in two quarterly tests written by matric pupils this year" (Bisetty 2003b: 1). He reported further that the tests, written at schools yielded "pass rates of less than 50%". This is truly alarming. If the pass rate in English as a subject is so dismal, how can one expect good results in other subjects that are taught through the medium of English? Saville-Troike (1991: 1) concurs that second language students are at a disadvantage trying to understand instruction and express themselves in a foreign language, especially when they must compete with other students who have already mastered their first language. Bell (2004: 12) adds, "it is clear that successful achievement in mathematics and science is difficult enough for students learning through their L1 [first language]; it is significantly more difficult for L2 [second language] learners. Not only are these two subjects inherently difficult for most learners, but the specialised types of language that mathematics and science need, even from a very early stage, compound the problem for L2 learners".

My study started with the premise that proficiency in English does influence the outcome of assessment conducted in English and that ESL students in particular are disadvantaged by the written only assessments conducted in English. The ESL students in my study have repeatedly indicated that they cannot express themselves adequately in writing in English and that "*the expression of the examiners*" and the "*wording of the questions*" pose a problem in the written assessments. Kader Asmal, the then Minister of Education, agreed that language is a barrier and that "all our children deserve a decent education and we cannot neglect those who have been disadvantaged for so long by apartheid" (2002: 1).

Childs and O'Farrell (2003: 233) argue that "science teachers are becoming increasingly aware of the importance of language in the classroom. The language of science is difficult and often obscure, even for native speakers. It requires careful and precise explanation in

order to ensure a shared meaning between the participants in classroom discourse". My study acknowledges that it is not only the ESL students who experience problems with English, but the EFL students as well. Diverse linguistic, cultural, social, domestic, historical and educational backgrounds lead students to interpret or perceive things differently. My study also recognises that just by virtue of the fact that a student speaks English as a second language, does not mean that he or she is a "weak" student, in other words, ESL student does not equate to "incapable" just as EFL does not equate to "bright". The classifications simply refer to whether English is the student's first or second language. For the purposes of this study, the classifications, *EFL* and *ESL* were determined from: the demographic information on the questionnaires and the respondents themselves. All the participants in this project were adults and they are aware of their proficiency in the medium of English and the other languages they speak. Students and assessors classified themselves as either *EFL* or *ESL* – no proficiency testing was therefore done to confirm or deny these classifications.

Given that South Africa is a democratic country where eleven languages enjoy official status, one would assume that all is well regarding teaching and learning especially with regard to language. One would not expect to find a situation where all students are being taught and assessed in one language and more especially, in one mode only. "Conventional or traditional (closed book, limited time) examinations are still the most commonly used form of assessment in tertiary Science courses. It is believed that by having to study to remember the course material for the examination, students will be forced to learn; and assuming an appropriately set examination paper, the results produced from such a well tried method will be reliable" (Trigwell 1987: 56). To assess all students in the same way, regardless of their proficiency in English and in the mode of writing, using only one mode of assessment, is to ignore the wealth of diversity among our student population. In a multilingual, multicultural country like South Africa which also carries a lot of political baggage, one has to agree that assessing all students in the same way does not mean assessing all students equally.

Educators often do not want to acknowledge differences in their students as they believe that it is discriminatory to do so (*see* Nieto 1996). But, by ignoring cultural, language proficiency and language background differences, teachers are actually being discriminatory. Nutta and Pappamihiel (2004: 3) agree that "on the surface, these educators are trying to be fair and impartial. However this disregard for diversity often results in teachers refusing to accept

differences and appropriately accommodate LEP [Limited English Proficiency] students' needs. Consequently, we must embrace the differences that all children bring with them in order to educate each according to his/her own needs". Our democratic constitution requires that we embrace the diversity of our student population. By ignoring the differences, we are ignoring the rich cultures that our students come from. Lolwana (1996: 189) believes that "the majority of learners in South Africa have not only suffered more from the radically fragmented system, but they have benefitted least from a punitive assessment and examination system".

In an attempt to explore how assessment itself can contribute to equity and transformation in post-apartheid South Africa, my study introduced an oral component into the present assessment structures. Devising a system of oral assessment for the South African tertiary context was no easy task. A survey of South African and international institutions as well as literature searches did not reveal any particular method or model that was highly successful or that was used by many institutions. In fact, what I did find, was that assessment practices varied from one institution to the next and indeed from one country to the next. I had to devise a system using the information that I had gathered and by drawing on my own experience with second language teaching. This meant that flaws and merits in the system would only become apparent after it was trialled with students. Oral assessments in my study were therefore conducted using an action research methodology which suited my research objectives as I could devise a system, trial it with the students and assessors, address shortcomings that arose from analyses of the questionnaires and focus group discussions after each round of the assessments, build on strengths, and re-plan for the next set of assessments. Two rounds of individual oral assessments and one round of group oral assessments were conducted. The group oral assessment route was explored as a means of assessing more students in less time. The written assessments in each round of the assessments, tested the same sections of the syllabus or the same knowledge, and the questions were of the same level of complexity and structure as the oral assessments. After the third round of assessments, assessors and students were unanimous that the group oral assessments achieved the purpose of assessing individual students within a supportive or collaborative group setting within a short period of time.

REVIEWING THE PROCESS OF ASSESSMENT

The structure of the oral assessments is relatively new not only in South Africa but internationally. The assessments were based on a *closed structure* which meant that the same structure was replicated for all the students. *Specific time-frames* for each segment of the assessment were used in the second and third round of the assessments, so that the procedure was standardized for all students. In the individual assessments, the duration of each student's assessment was *ten minutes*. The ten minutes was divided as follows: *two minutes* to prepare a response to the questions; *six minutes* to answer the questions in any order that they preferred; *two minutes* to recap or revisit any questions they had omitted or experienced problems with, wanted to elaborate on, or change an answer to. Students could also use the last two minutes to pose questions to the examiners. During the last two minutes of recap, the following candidate was given his or her questions and thus began the next student's preparation time. In the group assessments, the duration of each group session was *twenty five minutes* per six students. The allocated twenty five minutes gave each group *four minutes* to discuss the questions as a group; *three minutes* for each student to answer the questions in any order that they preferred (three minutes was the total talk time per student, it did not mean that each student had to speak for three minutes at a stretch), this time was guided by the assessor/s; and *three minutes* to recap, ask questions or to address unanswered questions.

The oral assessments were divided into *two sessions* so that the examiners only had to *prepare two sets of questions* as opposed to preparing a whole question bank or having a different question for each candidate (*see* Superville 1992) while still maintaining transparency of the whole process. The division of the assessments into two sessions meant that students did not have to wait around to be called or that they could arrive on campus either in the morning or in the afternoon depending on the time of their session. It meant also that assessors could plan their breaks and take longer breaks in between the two sessions so that they did not feel worn out by the afternoon, or as one assessor commented, "*it was equivalent to invigilating two sessions of written exams*".

The issue of *time* (often cited as a drawback or deterrent to oral assessment) especially in the case of large classes, was addressed in my study with the introduction of the group orals. The group orals allowed for the assessment of the candidates as individuals, in other words, each

candidate was scored separately on the assessment grid. The group oral assessments shortened the assessment time considerably, from ten minutes per student in the individual oral assessments to twenty five minutes per six students in the group setting. This means that a class of thirty students can be assessed in two hours and five minutes using the group assessment method. Of course, use of either format would be dictated by many factors and could be adapted to suit the subject, the assessor, the demographics of the student population, time constraints, or the institution.

The marks obtained for the oral assessments were initially added to the written marks by converting each of the marks to a percentage out of fifty. Thus, the oral and the written marks contributed to 50% each of the final mark. This was done in the belief that the student would benefit from the higher mark (be it in the oral or the written mode), but this also ignored the possibility that some students passed only on the basis of the mark obtained in one mode. In other words, if for example, a student failed the written mode, and scored high marks on the oral, she or he could pass on the basis of this oral mark when the marks were added on a 50/50 spilt. This would definitely negate the purpose of combining marks on the basis of equal weighting. It was therefore later decided to assess the candidates using both the oral and written tests (which were designed to test the same knowledge and understanding) and their final mark would be the higher of the two assessments. In this way, candidates benefited from the higher marks obtained for the mode of assessment that they excelled in.

Lessons Learned

Incorporating oral assessments into the present system of assessments could be one way of putting the "starting blocks" (Sarakinsky 1993: 7) of all students in a straight line and working towards ensuring that a fair "assessment" race is run. Granted that using oral assessments would not serve to sort out all the problems in assessment, it is hoped that its use would at least pave the way for fairer assessment for all students. While this study does not propose that the oral mode of assessment is better than the written mode, it does propose that a combination of the two modes, reflects the real world of the student who engages in both oral and written communication, and that it is necessary to train the students for their roles in the real world. While it is acknowledged that assessments have to be uniform or standardized so that some students are not disadvantaged over others, we can allow for variation while still

maintaining standards. We do not have to cling to the old gate-keeping structures of assessment. Using oral and written assessments could mean that we could assess ESL (English second language) students and EFL (English first language) students using the same assessments throughout the year and still be fair to all students. Fair, in the sense that we would be allowing those students who have good written skills to benefit from their higher marks obtained in the written assessments, while the students who are better able to express themselves orally, could benefit from the higher marks obtained in the oral assessments. Unanimous feedback from the participants in this study echoed clearly that the oral assessments definitely facilitated comprehension, understanding and expression in students (both EFL and ESL) and assessors. They appreciated the fact that they could seek clarity from each other, that they could ask questions, and rephrase their questions (in the case of the assessors) or answers (in the case of the students). Students were pleased that the orals allowed them to seek help in terms of expression, that is, if they could not express a word or thought clearly in English, they were assisted by the assessor or a peer. EFL and ESL students agreed that "*in a test situation, because of nerves, you forget even a simple word*", but the interactive nature of the orals, provides ready help in this regard.

Both the oral and the written assessments must be carefully structured and implemented so that reliability and validity of the assessments are assured. Variations of the structure may be employed, but care should be taken that a 'closed structure' is used so that the assessments can be standardized. The structure of the assessments, the assessment grid, and time and mark allocation may be varied to suit the needs of the assessors, department, faculty or institution. A closed structure which details procedure and time frames is very important to ensure uniformity, reliability, validity and standardization of the assessments. Questions set for both the oral and written assessments must be moderated. The moderator or co-examiner must also ensure that the questions used in the different sessions (of the oral assessments for the same class) are of the same level of complexity so that students are not tested according to different standards.

Assessors must be trained in conducting the oral assessments. Scoring of candidates (where marks are ascribed to student performance) must be done using an instrument, for example, a detailed assessment grid or scoring rubric where each criterion must be explained with examples if necessary. The criteria used must be made explicit and students must be informed

of these criteria so that they will know how they will be scored and what the assessor will be looking for in their assessment. The format and structure of the assessments must be carefully explained and both students and assessors. Trial or mock oral sessions must be held to acquaint all participants with the procedures involved before the oral examinations commence. Students will also have to be informed about what is permissible in an oral assessment, for example, that candidates and examiners can seek clarification from each other without the student incurring any penalties. One must not assume that students will know about the interactive nature of the oral assessments, after all, they are accustomed to traditionally private written only examinations.

Assessors may decide on whether they prefer the individual or the group oral assessments, bearing in mind though that the group format also allows one to assess individual students within the context of a group and that it reduces assessment time significantly. The make-up of the groups can yield different results. Ideally students should be allowed to select their own groups so that they feel comfortable with their peers and anxiety levels may be subsequently reduced. Having noted that the assessments also serve a teaching and learning function, it may sometimes be necessary to structure the groups in a particular way in order to achieve a desired result.

Assessment rosters must be put up timeously for students to fill in their details. All information relating to the day, date, time, venue, examiners, and the names of the other students in the group must be clearly communicated to the students and assessors. Students must be informed that if they miss their oral assessment, they will be subjected to the rules of the department or faculty, regarding missed assessments. Students and assessors must be punctual for their assessments so that everything can proceed according to plan. To avoid disruptions, no-one should be allowed to enter the room once the assessment is in progress. The oral assessments may be audio- or video-taped. It is important to note though that consent must be sought from both the candidates and the examiners before any recording is done. These tapes can serve as evidence and be revisited in the event of a query. They may also be used to refine the assessment procedure further, or to train future assessors in conducting oral assessments. Students can also learn about oral assessments from the tapes in a bid to reduce the anxiety that students generally experience with assessment. A word of caution, though, audio and/or video tapes, recording equipment and transcribers (if necessary)

could prove to be expensive. A possible solution, would be to record over old assessments, thereby reducing cost and storage problems. Assessors should use carbon paper when scoring students on the assessment grid so that students can be given a copy of their individual assessment sheet. This will allow students to query their marks if necessary, at the end of the session.

Strengths and Limitations of Oral Assessment

Oral assessment can contribute towards addressing imbalances of the past in the South African context. Generally when one talks about addressing imbalances or disadvantage, one immediately assumes that another individual or group is going to have to pay the price, give up something, or now be disadvantaged. But in the assessing context, addressing the disadvantage of the ESL student in terms of written only assessment (with no concessions or variations for the ESL student) does not mean that the EFL student will now be disadvantaged. All students can benefit from the interaction with the examiners and the other students. They can all seek clarity from the examiner and vice versa, because EFL students experience problems with language issues as well. From my experience of teaching in a multilingual classroom, I have found that the students sometimes get bored when the lecturer has to spend extra time explaining concepts for the benefit of the weaker students (be they EFL or ESL). In the oral assessment this need not occur as candidates are allowed to choose their own groups, so for the individual and/or the group assessments, students can elect to be examined with only ESL or EFL peers or a combination of the two.

Any assessment situation induces a degree of anxiety in the candidate. Students were very tense and nervous when doing the oral assessments for the first time. After the initial anxiety, hesitance and misgivings about the oral assessments though, students who had gone through the assessments more than once, hailed the oral assessments as being an excellent way to test their knowledge while allowing them to learn at the same time. The examiners were delighted that 'assessment and learning' took place from the oral assessments. The students learned from each other and from the examiners' feedback and discussion with the students. The other benefit, is that it assists in steering students away from rote-learning or memorization of material. Students know that because of the interaction, their knowledge of the subject will be probed and that sub-questions may be posed. They therefore cannot learn off a few concepts

or memorise notes and simply regurgitate them in the oral exam as they might do in the written exam. Students by their own admission, have to understand the material to be examined. Analysis of the questionnaires and focus group discussions bear testimony to this, where students said that they cannot rote-learn for the oral exam, but that they could "*get away*" with this in the written exam.

A criticism against oral assessments is that there is no record of the assessment and that in the event of a query, there is nothing to fall back on. By that I mean that students have no recourse as in the written exam where the script can be revisited. For this purpose, transparency of the oral assessments was ensured by assessing students in groups so that the other members could bear witness to the fact that the candidates were examined fairly and that they were not privileged or disadvantaged in any way over the others. Having more than one examiner per session also ensured that there was fair play. I did audio-tape the oral assessments, but I must caution that this is a very costly exercise and should only be done if one needs samples of the assessments or one intends to use the tapes for any purpose later on. It must be borne in mind though, that the students' permission has to be sought when taping their assessments. In the case of a query (relating to the student's mark), the 'jury' which is, all the examiners and all the members of the group must be called in to the 'hearing' to make a decision. I would rather suggest though, that the students be given their marks immediately at the end of their session, so that complaints can be lodged immediately and discrepancies sorted out.

The assessors remarked that the incorporation of an oral mode of assessment in tertiary Science, together with the traditional written assessments, is a "*win-win situation for the students*". They agreed that the mixed-mode (combination of the oral and written modes) assessments really benefit all students, in that "*students who can't express themselves well in writing, can talk out their thoughts, and the students who can't talk well, can make up their marks in the written assessment*". The different formats of the written and oral assessments help to 'balance' the process for all students, because the one format (written) withholds help while the other (the oral) provides ready assistance. Students who require help with understanding questions and formulating their responses, albeit expressing their thoughts clearly in English, or answering the question as expected, will benefit greatly from the oral mode of assessment. This does not mean that only the ESL students benefit from the oral

mode of assessment. EFL students also require help with understanding questions and guidance on how to answer the question asked. The oral and written assessments also test different skills. In the written assessment, the students have to express their knowledge in writing. This mode of testing demands that the students depend entirely on their proficiency in English to understand the questions, translate their thoughts, formulate answers and express themselves, without any assistance, in a manner that is clearly understood by the assessors. In the oral mode of testing, students have to express their knowledge by speaking. In oral assessment, assistance provided by the assessors and peers, enables the students to answer the questions and express their thoughts in a manner that is easy to understand or until it is clearly understood by the assessors. Both assessor and candidate can continually seek clarity from each other so that language need not be an obstacle in the assessing process.

Vygotsky's zone of proximal development (Moll 1993: 3) emphasizes the role of the instructor in the development of the child when instructor and learner collaborate with each other. Vygotsky believed that the support or guidance provided by the educator enables the learner to develop their skills to a higher level. This notion of collaboration is also regarded in esteem by advocates of critical language awareness and critical literacy. Menacker (1998: 2) says that the idea of language awareness has grown to encompass language across the curriculum and brought about collaborations between teachers of English, ESL, and other languages. To this end, Prinsloo and Janks (2002: 36) welcome the inclusion of critical literacy in the Department of Education (2002) Curriculum document, where critical literacy is "now seen as fundamental to thinking and reasoning, which focuses on the use of language for learning across the curriculum". The focus on oral/aural skills in the learning area of Languages in the Curriculum 2005 document augurs well for the development of language skills especially for the ESL student. This could mean that students taught within the framework of the 2005 Curriculum could enter tertiary education equipped with better verbal and written skills in the languages provided that diligent and creative teaching and learning takes place under suitable conditions with adequate resources. This could have a ripple effect on learning in the other subject areas taught through the medium of that language.

Policy Reform

While language policies being drawn up by the government, tertiary and other educational

institutions, as well as other stakeholders, may argue for a change in the medium of instruction and testing to include the indigenous languages of the country, we must bear in mind that this could take a while to come to fruition, in the meantime though, we need to look for immediately employable solutions for our students in the system. Prinsloo and Janks (2002: 36-37) agree that even though the Revised National Curriculum statement for Home Languages recommends that "the learner's home language should be used for learning and teaching wherever possible" it is difficult to support the home languages of all the learners in schools. They add that many schools in black townships and rural communities lack the basic material resources like furniture, textbooks, stationery, computers, printers and paper, and it would be very difficult to provide the additional human resources to allow learners to benefit from special assistance and supplementary learning (2002: 37). Prinsloo and Janks are referring to the situation in schools, but it must be borne in mind that the schools feed into the tertiary system. Language policy and language instruction at schools impact directly on language in the tertiary sector. While advocates of CALP (Cognitive Academic Language Proficiency) would welcome such support for ESL learners, the reality of the poverty and under-resourced schools in many parts of South Africa need to be addressed before such plans can be implemented. My study has revealed that the students and assessors alike, favour the medium of English, for various reasons. While I am not advocating a monolingual language policy, I am acknowledging that the *status quo* in terms of the medium of instruction and assessment remains for now, and the dominance of English and the effect of globalisation may impede the smooth implementation of a pluralist language policy. The inclusion of oral assessment into the curriculum, could possibly contribute to promoting the goals of pluralism and multilingualism. Oral assessment by its very nature is interactive. Being assessed (with other students) in the oral mode in their mother-tongue, would mean that the other students present would be listening to the language being spoken. Students may be motivated to learn this language as it would mean that they would understand and could learn from the assessment of their peers. With further instruction in this language, students could learn another language.

Oral assessment could promote the special redress of marginalised languages like, for example, sign language. Sign, by its very nature, is oral. Hearing impaired students need no longer be treated differently from other students. Assessing students orally in their mother-tongue, would require that assessors be trained in these languages, which could mean that

assessors presently in the system could be trained by their respective institutions. In the interest of promoting a pluralist policy, the government would be obliged to provide the additional funding. It could also mean employment for language specialists and other academics from the diverse African and other language backgrounds. The demand for interpreters and translators in the educational, commercial, political and economic sector in pursuance of a multilingual country would also require that people be trained to take up these positions. This means that their oral skills will have to be developed. Being assessed orally in their mother-tongue would demand that students be instructed orally in these languages. This could motivate students to learn other languages.

The use of oral assessments (as discussed below) could support the basic requirements for a language policy as outlined by The Advisory Panel on Language Policy to the Minister of Arts, Culture, Science and Technology (2000: 3). "Supporting the development of human resources through the official use of all South African languages in terms of the constitutional obligation to promote multilingualism", could be achieved by employing people who can teach, interpret, translate and assess in the indigenous languages. The employment of interpreters and translators to deal with the diverse South African languages could promote the "professionalisation of language practitioners through legislation and other means". Simultaneous interpreting to facilitate understanding among a multilingual audience would require "the development of an efficient language industry, by among other things, using and developing appropriate technology". It would also mean that the student and assessor do not have to be proficient in each others' language. Their utterances would be simultaneously interpreted using technology so that valuable assessment time is not lost in the process. "Special redress for the marginalised languages, that is, the African languages including the Khoe and San languages, as well as Sign language/s" could easily be afforded by oral assessment as the particular needs of these students could be addressed. Foreign students could also be easily accommodated in this category. Incorporating oral assessments into the present system would support "the provision for learning and teaching of South African languages" both orally and in writing. Students who graduate from such a system of education, would in turn encourage the "private sector to promote, support and implement a policy of multilingualism. Oral assessments could therefore pave the way for the implementation of a pluralist or multilingual language policy in South Africa.

Reform of Assessment Practices

In Kader Asmal's proposed plan for matric examinations, marks will be replaced with symbols and written assessments will range from "'inadequate', 'satisfactory' to 'outstanding'" (Bisetty 2003a: 1). Implementing mixed-mode assessment using these bands of grading could yield useful and relevant research at senior secondary level where pupils are assessed in both the oral and written modes as opposed to the traditional written only final examination. The matric plan is going to pose numerous problems for the tertiary institutions because they will have to revise their access or entrance criteria and processes. Mixed-mode assessments could be used with great effect to determine access or acceptance into a particular field of study. An oral assessment could be added to a revised written assessment to get a more complete impression of the student's capabilities. The oral format could enable the examiner to gauge personal and academic competence while reviewing a candidate's suitability and capability for a particular profession. Coupled with the written assessment or aptitude test, the educators could get a holistic impression of the candidate.

Education Minister, Naledi Pandor says that tertiary institutions should rethink their role in providing skills to address the urgent "mismatch" between the education received by graduates and available jobs (Brown 2004: 3). Minister Pandor was referring to the "areas of focus" by tertiary institutions in South Africa, but this statement could also reflect the "mismatch" between student's skills and available jobs in terms of student's readiness to take on the jobs they have been educated or trained for. Training students in written skills only means that we are neglecting an important element of communication, that is oral communication. My experience with students who are foreign language speakers of English, bear testimony to this fact. Many foreign students studying at the Durban Institute of Technology in different departments fare reasonably well, in fact some of them obtain high marks in their written examinations. It is only when you try to converse with the student orally, that you realise how necessary it is to incorporate oral communication into their curriculum. Often their words are unintelligible and both students and lecturers have to resort to written communication to get their messages across. These students then enter the corporate or working environment, able to learn off material and reproduce the information as and when necessary, but unable to communicate orally. The incorporation of oral assessments into the curriculum could also mean then that we are equipping our graduates with written

and spoken skills so necessary for communication and discourse in their field of study and work, and indeed their everyday lives.

My study supports the inclusion of an oral mode of assessment into the present system of assessment at tertiary level. In the South African multicultural, multilingual and mixed-ability classroom, one will increasingly find that the students come from a pot-pourri of cultures, mother-tongues and abilities. In terms of the mixed-ability classroom, one may sometimes find that the students may be on either end of the continuum in terms of their ability, that is, there may be over-achievers or high-flyers that are very bright and need to be extended or challenged more than the other students, whereas the under-achievers need more help and motivation to bring out their potential. Oral assessments allow the examiners to tailor make the assessments for each group or individual without disadvantaging any one else. The written assessment however, have to be set in a way that enables students of all abilities or capabilities to perform reasonably. All students are asked the same question in exactly the same way regardless of language background or ability. The difference here is marked: in the oral assessment, the examiner can rephrase the question and probe or ask the sub-questions differently for the candidates, whereas the written assessment can at best hope to allow a reasonable performance from the students who fall within the "under-achieving or poor to average" category.

SOME LIMITATIONS OF THE STUDY

On the one hand the study has succeeded in demonstrating the ways in which we might begin to think of a more equitable assessment system for ESL students, and indeed how we might arrive at a system of assessment that could benefit all students regardless of whether they are EFL or ESL. On the other hand, the study also acknowledges that the incorporation of oral assessments alone into the present system of assessment in tertiary Science will not solve all our assessment problems in South Africa. Valdez *et al.* (2004: 3) agree that there are "more factors beyond the language barrier that play a role in Limited-English-Proficiency students' thinking process as well as their development of mathematics and science literacy and proficiency". Many more questions remain to be answered in order to fully address the issues relevant to assessment. Firstly, there are other factors that need to be taken into account, like, for example, the level of preparedness of the student for tertiary study in Science, the

language of the textbooks, and the relevance of content to name a few need to be carefully examined to determine its role in assessment in tertiary Science. Secondly, from my experience and from my discussion with the assessors and other lecturers, it is apparent that students "*end up*" studying Science at tertiary level, for the wrong reasons, they may be coerced by their families to enter the field of Science because of the 'need' for Science graduates in South Africa, because of the 'prestige' attached to studying Science, or because they applied late to the various departments or faculties (for whatever reason) for admission, and were eventually 'given' a place in Science to make up the numbers. These students may have a desire to study some other course, and therefore show little or no interest in the Science course they are enrolled for. Determining the percentage of students that are truly interested in Science, could also give a truer reflection of the results obtained. Although this study has provided some answers with respect to planning, administration, and scoring of oral assessments, limitations within the research are acknowledged.

Anxiety itself is an issue. Although it was beyond the scope of my study to look at how one might reliably measure anxiety, there is a rich body of literature in this area. If anxiety levels of students were measured during the assessments, these measurements could have been correlated with the assessment results achieved, so that this study could have accurately predicted the effect of anxiety levels on the test scores of ESL and EFL students. Although my study acknowledged that not all ESL students have poor proficiency in English and that not all EFL students have good proficiency in English, classifying students as EFL or ESL according to their own 'labels' or classifications may have led to confusion in this regard. If students were tested for their levels of proficiency in English, such classifications would have been easier to understand and it would have lent more credence to the results achieved in the assessments. Such tests would have also assisted in correlating data, making accurate inferences about student learning and achievement, and enhancing assessment design in line with students' capabilities in English. Measurement of student learning in the written assessment as compared to student learning in the oral assessment would have yielded information about how students learn for the two modes of assessment and also, how much of learning actually took place from the two modes.

For the purposes of this study, the samples were drawn from one university and one technikon, that is, the M.L Sultan Technikon (now the Durban institute of Technology) and

the University of Natal (now the University of KwaZulu-Natal) - both are tertiary institutions in Durban, where English is the medium of instruction. The university places emphasis on the professional aspects of one's career, while the technikon places emphasis on the technical and vocational aspects of one's career; consequently, the entrance requirements and the nature of the courses offered are different. It is important to note that my research is confined to two institutions, mainly because of my awareness of experiences and problems encountered by educators and students alike at the University of KwaZulu-Natal and the Durban Institute of Technology. My study is also limited in terms of the population studied and the geographical location. I had to be present at the oral assessments to ensure that everything went according to the schedule, so, the study had to be limited in terms of the population (Science) and the geographical location (Durban). Gipps (1995: 173) maintains that to pretend that we can generalize widely is to delude ourselves and others. Any significant results emerging from this study, therefore may not reflect the situation at all tertiary institutions, but will undoubtedly prove useful in beginning to understand and address assessment needs of students at tertiary level. Moss (1992: 250) and Gipps (1995: 173) agree that "transferability" which involves a description of the context in which the assessment took place, is far more important than "generalisability".

My study focused on the Faculty of Science for the following reasons: oral assessments are used with great success in Science in countries such as Italy, Sweden, Poland and Hungary and I wanted to draw on their experiences and methodologies to guide this study; departments within the Faculty of Science at both the ML Sultan Technikon and the University of Natal, Durban indicated willingness and enthusiasm to participate in this study; the Faculty of Arts at the ML Sultan Technikon, due to the nature of the courses that they offer, use exhibitions, drawings, artefacts and displays in addition to written assessments to showcase their work; the Faculties of Commerce and Engineering at both institutions were somewhat resistant to participate in this study, because they felt that they were too often "*targeted*" for research purposes and that they would "*prefer*" not to be involved again. Changing assessment procedures is often more difficult than the process of assessment itself. Resistance to change is normal" (Brown *et al.* 1997: 222). Given the battering that higher education has received in the past decade together with restructuring and the imminent or already actioned mergers between higher education institutions in a bid to rationalise tertiary education in South Africa, it is not surprising that many educators are suspicious of change

and are unwilling to challenge the present established or traditional systems. This is the reason why my study had to be delimited in terms of the samples used.

IMPLICATIONS FOR FURTHER RESEARCH

Given the above limitations though, the research sample could be varied to include: different departments in the Faculty of Science, other subjects and indeed other faculties (for example, the Faculties of Arts, Commerce and Engineering), other tertiary institutions in South Africa, first year students, and post-graduate students. It would be useful to track students over a three or four year period using a combination of the oral and written modes (mixed-mode) of assessment to determine the effect of these assessments on the student's level of proficiency in English, in other words, to determine whether there is indeed any improvement in the students proficiency in English. It would be useful to compare such a group's results with a control group that was assessed using only the written mode of assessment. The two groups could then be compared in terms of: their ability to engage in discourse in Science and about matters in general; the amount of actual learning that has taken place over the years, and to determine just how much of information or material is retained after that period of study. The students' readiness for participation in the real or working world will need to be measured and followed up by an assessment of the two groups' performance in the working environment.

The use of oral assessments as proposed in this study for Science, should be trialled in other departments and other faculties. In all subjects, students are trained for their success in their chosen careers. All of these careers require the graduate to be able to communicate both in writing and orally albeit to different extents for the different work situations. Studies in oral assessment need to be conducted in the different departments and faculties at tertiary level to determine their relevance in these areas. The faculties of Engineering, Commerce, and Arts train their students to operate within a consumer-driven industry. Engineering graduates need to communicate with their clients to determine their needs, and then in turn, they have to communicate their expertise in lay terms to their clients. Commerce graduates, be they chartered accountants, managers, or administrative clerks will have to communicate with clients and know how to be team-players to succeed in their fields. Arts graduates, who depend on various forms of communication for a living, need to equip themselves with good

oral and written skills. Across the spectrum, even builders, lawyers, architects, pharmacists, technicians and motor mechanics, need to have good oral skills. Without successful oral communication, it would be very difficult to succeed even with the most technologically advanced equipment as successful transaction of business will demand some form of oral communication.

Admittedly there were shortcomings in the assessment grid used, particularly with reference to the inclusion of the two categories of 'presentation' and 'prompting' which may have led to a particular set of outcomes or results. The exclusion of these categories could lead to a "fairer" reflection of students' knowledge of content by ignoring the above two categories altogether and scoring could have been done differently for the oral assessments. One such method would have been the use the SOLO (Structure of the Observed Learning Outcome) Taxonomy (Biggs and Collis 1982). The SOLO Taxonomy may be used for analysing learning tasks, hierarchies of objectives and for assessing students' work and "provides a systematic way of describing how a learner's performance grows in complexity when mastering many academic tasks" (Nightingale 2004: 1). She described also how the SOLO taxonomy may be used in authentic assessment where a student is asked to "do something he or she might have to do in the 'real world' after graduation" and where "the task requires students to use the subject's content in such a way that they may demonstrate learning at the extended abstract level. That is, they must perform their understanding" (2004: 1).

The five levels of Biggs' schema or taxonomy (Biggs 1996: 351-352) may be distinguished as follows: *Prestructural*, where the task is not attacked appropriately; the student hasn't understood the point; *unistructural*, where one or a few aspects of the task are picked up and used (understanding as nominal); *multistructural*, where several aspects of the task are learned but are treated separately (understanding as knowing about); *relational*, where the components are integrated into a coherent whole, with each part contributing to the overall meaning (understanding as appreciating relationships); and *extended abstract*, where the integrated whole at the relational level is reconceptualised at a higher level of abstraction, which enables generalisation to a new topic or area, or is turned reflexively on oneself (understanding as far transfer, and as involving metacognition). Within this taxonomy, 'pre-structural' could be regarded as barely satisfactory and 'extended abstract' as outstanding performance (Assessing Student Learning 2004: 5). When Biggs applied the SOLO

taxonomy to a unit of in-service school teachers as part of a degree program in Psychology, he explained the 'extended abstract' as "most desirable", where students are able to "use the taught content in order to *reflect* on their own teaching, *evaluate* their decisions made in the classroom in terms of theory, and thereby *improve* their decision-making and practice". He adds that other outcomes would be "*formulating* personal theory of teaching that demonstrably drives decision-making and practice, *generating* new approaches to teaching on the basis of taught principles and content" Biggs (1996: 352).

Since the assessors in my study wanted to use the oral assessments both summatively and formatively, marks had to be assigned. Of course, marks could have been assigned within the five levels of the SOLO taxonomy, but assessors were very reluctant to apply this method of assessing their students as this was their and their students' first experience with oral assessments and they wanted to "*keep it as close to home as possible*", in other words, they wanted to "*stick with a familiar method*" of scoring their students. Assessors explained that the marking memorandum utilised for the written assessments provided them "*with definite parameters within which to accept or reject a candidate's answer*" which meant that the "*range of acceptable responses are delimited making marking more standardized*". They therefore wanted a scoring rubric for the oral assessments that would also "*delimit*" what they were "*looking for*". Two of the assessors agreed that "*using other methods of scoring would be an option when we and our students are more experienced with oral assessments*" while another added, "*yes, it would be too much to take on right now, let's take things one step at a time*". Agreeably, assessors could have been trained to use the SOLO taxonomy or any other method of scoring, like they were trained to use the assessment grid, but, as discussed earlier, the assessors were an integral part in the design of the grid, and I did not want to dismiss their views and impose things on them as this study was based on collaboration and interaction.

Some of the international institutions surveyed in my study do not assign a mark or grade to the students' performance. Instead, they assign pass/fail grades to their students. The South African educational system would have to be overhauled to accommodate such a system of scoring which depends on marks or symbols for students to graduate to the next level of study. Nevertheless, using such a pass/fail system only, could reduce anxiety in students and allow them to relax more during the assessments. This in turn could affect student performance in the oral assessments. An exploration of scoring students using the SOLO

Taxonomy could lead to useful information about assessing students.

As I was not afforded the opportunity to try out different methods or options with the group assessments because of the lack of samples, I could not investigate the group assessments further. The group oral assessments could be further refined to enable assessors and students to achieve maximum benefit by investigating or trialling variations of the method proposed in my study. The make-up of the groups could be varied. Groups could be made up of students from different language backgrounds, that is, to combine ESL and EFL students in different ratios, or to combine weaker students with brighter students in the class (be they EFL or ESL). Students from different cultural groups could be put into one group, and the groups could be a mix of males and females. The ratio of males to females in a group could also yield different results. Groups could be homogenous in their make-up, in terms of sex, language background, race, cultural background, and capability in the subject (that is, all bright or all weak students in one group). Heterogeneous groups based on the above factors could also shed more light on which combinations could be most productive in the assessment context.

The assessors could be varied. Students could be assessed by external examiners, whom they are not familiar with to determine if the level of interaction differs from that of the group where students are assessed by their own lecturers. An assessing panel made up of a combination of their lecturers and external examiners could be explored. The effect of the sex, cultural background, language background, and race of the assessors on: male and female students' performance, and their levels of anxiety, needs to be investigated. The approach of the assessors or their manner of communication and 'how friendly or approachable they are' and the effect of this on student performance needs to be studied. This study may be taken further by investigating the effect of the above on male and female students, and on students from different cultural and language backgrounds. A comparison of assessors' scoring of students based on the above factors would possibly yield valuable information in terms of inter-rater reliability.

The closed structure in respect of time as proposed in this study needs to be investigated further. Using different time frames for the different segments, that is, planning, answering and recap, could lead to more efficient and productive assessments. Additional time could

also be afforded to other categories, like for example, application of content to everyday situations. The assessment time per student could be lengthened. If this is done, it may be necessary to investigate the effect of a longer assessment on the anxiety levels of the students. This variation in the time frames also needs to be investigated in terms of the individual oral assessments. For students who are particularly shy or afraid to be assessed with a group of students, an investigation of paired assessments, perhaps in line with the assessments used by Cambridge University (as discussed earlier) needs to be conducted. Again, the problems of assessment within a South African context need to be heeded, in terms of language proficiency, educational, language and cultural background of the candidates, as well as competency levels of the candidates within the subject being examined.

Implications for Methodology

Beyond what I found out about assessment in the study, there are also implications for methodology itself. As noted in Chapter Four, this study took on what might be described as a 'hybrid' version of action research in that I wanted to see how, as an instructor in language Education I could bring about change. Clearly this is a fruitful area for further investigation. As McNiff (1988: 72) writes, "Action research is political, in that it has to do with change. People are usually afraid of change and will often resist it by whatever means they have available. Action research needs teachers of courage". What I learned is that it is not easy to get other educators to commit to a project, and I battled to get samples for my research mainly perhaps because people were sceptical or because they were just not prepared for change. The assessors who participated in my study must be commended for all the extra time they invested in the design of the assessment grid, for diligently attending all the training sessions and for all the time they invested in the assessment sessions and the focus group discussions. They are "teachers of courage!" In reflecting on my approach towards this study, in the words of Green (1999: 123) "it seems to me that the qualities of openness, the willingness to engage with the unfamiliar, the friendships across subject boundaries" are what makes great teachers, where they too are willing to reflect on their practices for the benefit of their students.

It was a pity that more groups did not participate in the group oral assessments. After having put in a lot of time and effort into the individual assessments, I had to understand when

assessors said that they could not participate further because of "*time constraints*" imposed by their syllabi. They "*would have liked to participate further*" but were restricted because they had to complete sections on their syllabi and since the oral assessments were "*not part of their formal scheduled assessments of the year*", they could "*not afford*" to spend any more time on these assessments. "*Perhaps when we're done with our syllabus, we could look at the group assessments, but I cannot promise anything at this stage*" said one examiner who was really keen on the group orals. One benefit of doing the individual (and group) oral assessments within the same departments though, was that by the end of all the assessments, students and assessors had developed "*closer relationships*" and they were able to "*communicate more freely with each other*" as "*barriers had been removed*".

A Final Word

People and their interactions are more than a collection of objective, measurable facts; they are seen and interpreted through the researcher's frame – that is, how she or he organizes the details of an interaction, attributes meaning to them, and decides (consciously or unconsciously) what is important and what is of secondary importance or irrelevant (Brown and Pendelbury 1996: 16). Examination of some other aspects of oral assessments that evolved out of my study, which I perhaps left out or minimized could provide valuable other information regarding assessments. My study acknowledges that by virtue of the instruments used, the choice of samples, institutions, and geographical locations, and the way in which the data were analysed and presented led to the conclusions expressed, and that if any of the above were different, different conclusions may possibly have been reached.

It is my fervent hope that the findings of my study will spur institutions of higher learning to encourage the use of oral assessments in Science, and in other areas, and that further related research will ensue. When I began this study, I had a sense that we do not do justice to the learners in our classrooms at tertiary level and that we are fooling ourselves if we think we can transform our institutions simply by changing recruitment and admission policies. All aspects of the curriculum have to undergo transformation, with assessment itself being at the core of curriculum change. It is time to recognize that the written-only assessment practices in South Africa do not recognize the Rainbow Nation.

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CORRESPONDENCE:

Chapter Three quoted academics from abroad in the period: September-November 2000. Only the dates relevant to the quotes in my study have been indicated below. Permission was sought from these academics to quote them directly.

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06/09/00 at 15:55

Gurtler, E. 2000. eva.guertler@szfh.ch
02/11/00 at 10:08; 02/11/00 at 14:04.

Johnstone, A. 2000. alexjo@btinternet.com
13/10/00 at 08:17.

Szepes, L. 2000. Szepes@para.chem.elte.hu
22/09/00 at 17:00.

Perjes, P. 2000. Perjes@worldiddac.org
11/10/00 at 12:04.

Stauffer, M. 2000. Stauffer@edk.unibe.ch
31/10/00 at 18:00.

van Berkel, H. 2000. H.vanBerkel@EDUC.unimass.nl
07/09/00 at 15:55; 08/09/00 at 12:23.

van den Berg, I. 2000. i.vandenberg@IVLOS.UU.NL
07/09/00 at 11:30; 07/09/00 at 14:59; 08/09/00 at 09:50.

APPENDIX A

FACULTIES SURVEYED

Applied and Computer Sciences
Applied Science
Applied Technology
Health
Health and Environmental Sciences
Health and Social Sciences
Health Sciences
Higher Development Education
Mathematics and Natural Sciences
Medicine
Natural and Agricultural Sciences
Natural Sciences
Science
Science and Agriculture

APPENDIX B

DEPARTMENTS SURVEYED

Agriculture

Biochemistry
Biochemistry and Microbiology
Biological Science
Biomedical technology
Botany

Chemistry
Chemistry and Biochemistry
Child and Youth Development
Chiropractic
Civil and Building
Community Health
Computer Science
Consumer Science

Dental Technology
End User Computing
Engineering and Technology
Environmental Health
Environmental Sciences and Development

Food and Biotechnology
Food and Consumer Science
Food Technology
Foundation Studies

Geography
Geological Sciences
Geology

Health Technology
Homeopathy
Horticulture
Human and Animal Physiology

Journalism

Mathematics
Mathematics and Statistics
Microbiology
Molecular and Cell Biology

Nursing Sciences

Optometry

Paediatrics
Physics
Physics and Electronics
Radiography
Rock Art Research Institute

Software Studies
Somatology
Statistics
Statistics and Actuarial Science
Surgery

Technology and Fisheries
Tourism and Hospitality

Water Care

Zoology

APPENDIX C

SUBJECTS SURVEYED

Actuarial Science
Advanced Strategic Planning
Agricultural Economics
Agricultural Law
Agricultural Mechanisation
Air Pollution
Analysis and Design
Anatomy
Analytical Chemistry
Analytical Chemistry Practical
Animal Science
Applied Chemistry
Applied Mathematics
Archaeology
Auxiliary Therapies

Basic Computer Organisation
Biochemistry
Biology
Biostatistics
Biotechnology
Biotics
Blood Transfusion
Botany

Cellular Pathology
Chemical and Physical Water Processing
Chemistry
Chemistry for Engineers
Chiropractic Principles
Climatology
Clinical Chiropractic
Clinical Homeopathy
Clinical Radiographic Practice
Clothing and Textiles
Communication: Food
Community Development
Community Medicine
Computer Security
Computer Science
Control and Legal Aspects

Court and Crime Reporting
Crop Production
Crystallography

Data Analysis
Dental Materials
Development Software
Digital Systems
Dispensing
Drawing

Ecology
Economic Botany
Economic Environment
Electronics
Entomology
Environmental Legislation
Environmental Planning
Environmental Resources
Environmental Science
Enzymology
Epidemiology
Evolutionary Biology
Extension Personnel Management

Fisheries Science
Food and Beverage Studies
Food and Food Science
Food and Meat Hygiene
Food Biochemistry
Food Components
Food Industry Management
Food Microbiology
Food Package Development
Food Process Engineering
Food Product Development
Food Quality Assurance
Food Technology
Foundation Mathematics

General Concepts
General Parasitology
Genetics
Geochemistry
Geomorphology
Geography

Geology
Geophysics

Haematology
Health Insurance
Horticulture
Housing
Hydrology

Immunology
Informatics
Interior Merchandise
Internal Medicine
Introduction to Mass Communication
Invertebrate and Vertebrate Zoology
IT Project Management
IT Risk Management

Java Programming

Landscape Technology
Logic

Management
Management Information Systems
Management Practice
Mathematics
Mathematical Statistics
Mechanics
Medieval Chemistry
Metamorphic Geology
Measure and Integration Theory
Metabolism
Microbiology
Mineralogy
Molecular and General Virology

Networks
Neuro Physiology
Nursing Management
Nutrition
Occupational Health and Safety
Occupational Nursing
Ocular Pathology
Ocular Pharmacology
Operating Systems
Optometric Psychology

Optometry
Oral Anatomy
Organic Chemistry
Orthoptics

Paediatrics
Paediatric Optometry
Pathology
Pest, Weed and Disease Control
Physics
Physiology
Plant Morphology
Plant Nutrition
Plant Physiology
Plant Protection
Plantmaterial Studies
Plant Systematics
Primary Clinical Skills
Production Management
Programming
Psychiatric Emergency Care
Psychiatry
Psychopathology

Radiation Science
Radiographic/Topographic Anatomy
Radiographic Pathology
Radiographic Practice
Real analysis
Research Methodology
Risk Theory

Safety and Hygiene
Sanitation
Sedimentology
Site Planning
Socio-psychology of Clothing
Soil Science
Somatechniques
Statistics
Stratigraphy
Surgery
Survey Sampling
Sustainable Development
Systems

Therapeutics

Time Series Analysis
Tooth Morphology
Tourism Development
Travel and Tourism Practice

Waste Management
Water Care Technology

Zoology

APPENDIX D

SUBJECTS THAT TEST CONTENT ORALLY

Agricultural Economics
Air Pollution
Analytical Chemistry
Analytical Chemistry Practicals
Anatomy
Archeology

Biochemistry
Botany

Chiropractic Principles
Climatology
Clinical Optometry
Clinical Radiographic Practice
Clothing
Communication: Food
Computer Science
Co-operative Training
Crop Production

Dispensing

Entomology
Environmental Studies
Equipment Studies

Food and Food Science
Food and Meat Hygiene
Food Industry Management
Food Production Development
Food Project
Food Technology
Freshwaterfield Biology

Geology

Internal Medicine

Landscape Technology

Management

Management Planning
Microbiology

Nutrition

Occupational Health and Safety
Ocular Pharmacology
Operating Systems
Orthoptics

Paediatrics
Paediatric Optometry
Pathology
Plant Physiology
Plantmaterial Studies
Primary Clinical Skills
Psychiatry
Psychiatric Emergency Care
Psychopathology

Radiographic/Topographic Anatomy
Research Project

Sedimentology
Somatechniques
Surgery
Systems Analysis and Design

Therapeutics
Tourism Development

Waste Management

Zoology

APPENDIX E

PROTOCOL FOR THE ORAL ASSESSMENT: ROUND ONE

In preparation for the oral exam:

Put up a roster with the **day;date and time slots for each session**, (and of course other relevant details regarding the assessment) eg: SESSION 1: MON, 20 AUGUST 2001
08:05 – 11:05

		SURNAME	FIRST NAME/S	REG. NO
1	08:10 - 08:25			
2				
3				
4				
5				
6				

You may decide to have a 5min or 3 min gap between candidates – the times must be uniform and the time-slots must be indicated on the roster. Please adhere strictly to these times.

Students must then fill in their names on the roster - they can therefore plan/determine who will be in the group/session that they're being assessed. This will also help alleviate the problems of clashes, because students will not choose times in which they have clashes. Each candidate will have five other candidates in the room with him/her. Sometimes the candidate may want to have only one other candidate present or s/he may insist on being examined alone, this is OK, but in this instance - s/he must be cautioned that it is their choice and that they cannot squeal later, in the event that they want to appeal their mark, because the others present also ensures transparency of the examining process.

Students must be informed that once they put down their name/details on the roster, they are bound to that time-slot and they must regard it as an appointment to be assessed. Lecturers must confirm dates and times timeously with students.

Students will have to be informed about the format of the oral exam, which is as follows:

1 The session will start on time. Students must be present at least 5 mins before the start of the session - they will not be allowed to enter the exam room once the session is in progress . If they're late, they will have to wait outside and you can call them into the room after all the candidates have had their turn - they will have been allocated 15 mins

on the roster.

2 Each candidate will get 15 minutes - not more or less. It might happen though, that some candidates may know their work so well that they will finish before the allotted time - this is perfectly OK. We cannot allow anyone extra time.

3 The candidates will be scored on a grid provided - this must be shown to students and discussed with them in class prior to the assessment. At the end of each session and after the candidates have left the room, the examiner and the co-examiner will confer on the students' marks/performance while it is still fresh on your minds. You will have to reach consensus on each student's overall mark. It is not necessary to adjust or discuss marks for each category.

4 Explain why the session is being taped - ie.
a) for transparency/for the students' benefit in the event of a query and a record of the proceedings
b) for research purposes

5 Convey to the students that they should view this/the session as an informal chat and as an opportunity to learn. They should feel free to talk about what they have learned and to share their ideas – and that not being able to answer a question or two must not be regarded as a tragedy. It is an opportunity to learn and to share ideas.

6 Tell students that they must feel free to illustrate their answers on the board (provide pen/chalk and eraser/duster)

7 Impress upon them that their language skills/competencies are not being assessed.

8 Impress upon them that they must seek clarity or ask you to explain or re-phrase if they do not understand what you're asking/saying - that they must feel free to talk to you AND **that they will not be penalised in any way for seeking clarity**.

9 Emphasize that when you or the moderator/co-assessor asks them to re-phrase or explain something/seek clarity, it does not mean that you want to intimidate them or make them feel awkward, but rather that you want to maximise their opportunity of performing at their optimum. That they do not get this opportunity to explain themselves (until the examiner understands) in the written exams and they should therefore look at this positively.

To start the session:

1 Smile, greet the students

2 Introduce yourself and the co-examiner. Explain **very** briefly (as this would have been done in class before) how the assessment will proceed. Make small talk with the group so that they feel relaxed. Try to put them at ease.

3 Start with the first student (who will answer from his/her seat)

4 Ask the student to talk about his/her favorite section of the course/syllabus (the sections you want to test) or a section of the course that they understood best.

5 Start asking questions when the student has eased him/herself into the situation. Ask follow-up questions.

6 As you ask questions, do a mental calculation or write down that you've asked a short, medium and long question to total 50 marks.

7 Try not to write too much while the student is talking as this will make the student nervous, and it will become difficult to maintain a conversation.

7 Allow the co-examiner to ask some of the questions AND to help you to re-phrase questions/instructions where necessary - so that s/he is not regarded as an "observer" or "intruder" and students don't get nervous

8 Give students a chance to think about their answers before responding. Decide (between the moderator/co-assessor and yourself) on a standard number of minutes/seconds – if after this time, no response is forthcoming, start probing.

9 Encourage students with your non-verbals, pay attention to your facial expressions - look encouraging. Do not frown, scowl or look bored.
Also, make encouraging sounds like: uh huh; well done; that's great; fantastic; I like that; go on (encouraging them to say more)...

10 If the student says something wrong, say for example: "okay, let's look at this differently"; "... what about..."; "let's backtrack a little"; ...

11 If it is obvious that the student absolutely does not know an answer, move on to something else, so that there is no uneasy long silences or wastage of time.

12 After you've asked all the questions/end of each student's turn, (if they couldn't answer any of the questions) ask them if there's any question they'd like to go back to.

13 Please leave the room during the breaks (between sessions) so that you will feel refreshed when you get back.

14 Please ensure that you pin up the roster for each day outside the exam venue so that students may be reminded of their times.

15 Absentees should be dealt with in the same manner as is done for a written assessment - this must be communicated to the students well in advance of the assessments.

THANK YOU VERY MUCH FOR AGREEING TO PARTICIPATE IN THIS PROJECT.

APPENDIX F

PROTOCOL FOR THE ORAL ASSESSMENT: ROUND TWO

In preparation for the oral exam:

Put up a roster with the **day;date and time slots for each session**, (and of course other relevant details regarding the assessment) eg:

SESSION 1: THURS, 9 MAY 2002
08:00 - 08:30

		SURNAME	FIRST NAME/S	REG. NO
1	08:10 - 08:20			
2				
3				

Students must then fill in their names on the roster - they can therefore plan/determine who will be in the group/session that they're being assessed. This will also help alleviate the problems of clashes, because students will not choose times in which they have clashes. Each candidate will bring two other candidates into the room with him/her. Sometimes the candidate may want to have only one other candidate present or s/he may insist on being examined alone, this is OK, but in this instance - s/he must be cautioned that it is their choice and that they cannot squeal later, in the event that they want to appeal their mark, because the others present also ensures transparency of the examining process.

Students must be informed that once they put down their name/details on the roster, they are bound to that time-slot and they must regard it as an appointment to be assessed. Lecturers must confirm dates and times timeously with students.

They will therefore be assessed in groups of 3.

Students will have to be informed about the format of the oral exam, which is as follows:

1 Students will be seated in a room adjoining the examination room. Put up the roster in this room, so that it serves as a reminder to them of their turn and it will avoid confusion.

2 The session will start on time. Students must be present (in adjoining room) at least 5 mins before the start of the session - they will not be allowed to enter the exam room once the session is in progress . If they're late, they will have to wait outside and you can call them into the room after all the candidates have had their turn - they will have been allocated 10 mins on the roster.

3 Each candidate will get 10 minutes - not more or less. It might happen though, that some candidates may know their work so well that they will finish before the allotted time -

this is perfectly OK. We cannot give anyone extra time.

4 The candidates will be scored on a grid provided - this must be shown to them and discussed with them in class prior to the assessment.

5 Explain why the session is being taped - ie.
a) for transparency/for the students' benefit in the event of a query and a record of the proceedings
b) for research purposes

6 Convey to the students that they should view this/the session as an informal chat and as an opportunity to learn. They should feel free to talk about what they have learned and to share their ideas – and that not being able to answer a question or two must not be regarded as a tragedy. It is an opportunity to learn and to share ideas.

7 Tell students that they must feel free to illustrate their answers on the board (provide pen/chalk and eraser/duster)

8 Impress upon them that their language skills/competencies are not being assessed.

9 Impress upon them that they must seek clarity or ask you to explain or re-phrase if they do not understand what you're asking/saying - that they must feel free to talk to you AND **that they will not be penalised in any way for seeking clarity**.

10 Emphasize that when you or the moderator/co-assessor asks them to re-phrase or explain something/seek clarity, it does not mean that you want to intimidate them or make them feel awkward, but rather that you want to maximise their opportunity of performing at their optimum. That they do not get this opportunity to explain themselves (until the examiner understands) in the written exams and they should therefore look at this positively.

PROCEDURE:

1. **The exam room**: One Examiner and one co-examiner, and 3 candidates/students at a time. The exam room must have a board, chalk/pen and duster or flip chart and pen + blank sheets of paper + a silent clock so that everyone can keep track of the time.

2. Hand the first candidate a slip of paper with 3 questions on it (short, medium, long) - s/he will have 2 mins to plan responses to these questions. S/he can jot down ideas (not write whole essays). In the meantime the others can settle in and the examiners can get ready. At the end of the 2 mins, the assessment starts. Candidates can answer the questions in any order that they choose. They will have 6 mins to answer the questions. At the end of the 6 mins, they have 2 mins to come back to any missed answer or any question they want to revisit. At the beginning of this 2 mins, hand candidate 2 his/her slip of paper with 3 questions ...

To start the session:

1 Smile, greet the students

2 Introduce yourself and the co-examiner. Explain **very** briefly (as this would have been done in class before) how the assessment will proceed. Make small talk with the group so that they feel relaxed. Try to put them at ease.

3 Start with the first student (who will answer from his/her seat)

4 The student may answer the questions in any order that s/he chooses.

5 Ask follow-up questions or probe where necessary. Assist students with verbal or non-verbal cues where they need help. Avoid long silences as this will just waste time and it will make the student uncomfortable.

6 Try not to write too much while the student is talking as this will make the student nervous - and it will be difficult to maintain a conversation

7 Allow the co-examiner to ask some of the questions AND to help you to re-phrase questions/instructions where necessary - so that s/he is not regarded as an "observer" or "intruder" and students don't get nervous

8 Encourage students with your non-verbals, pay attention to your facial expressions - look encouraging. Do not frown, scowl or look bored.
Also, make encouraging sounds like: uh huh; well done; that's great; fantastic; I like that; go on (encouraging them to say more)...

9 If the student says something wrong, say for example: "okay, let's look at this differently"; "... what about..."; "let's backtrack a little"; ...

10 If it is obvious that the student absolutely does not know an answer, move on to something else, so that there is no uneasy long silences or wastage of time.

11 After you've asked all the questions/end of each student's turn, (if they couldn't answer any of the questions) ask them if there's any question they'd like to go back to.

12 Please leave the room during the breaks (between sessions) so that you will feel refreshed when you get back.

13 Absentees should be dealt with in the same manner as is done for a written assessment - this must be communicated to the students well in advance of the assessments.

FOR THE EXAMINER AND THE CO-EXAMINER:

1 Please draw up 3 sets of questions, ie.: 3 long, 3 short and 3 medium questions and

combine these differently so that students don't know which ones they'll be getting, even if others have informed them.
As students will attend/be assessed in groups of 3, you can use 1 set per student.

2 Examiner and co-examiner to please score each student on the grid separately. Please use the 3rd grid to put down the 'agreed upon' mark. I need all three sheets for my research purposes, please.

3 Impress upon students that if they inform others of the questions (which will vary) that they are actually disadvantaging themselves.

4 Students will have to complete a questionnaire after the assessment. Please impress upon your students the importance of them completing the questionnaire and handing it back.

5 I would prefer to also talk to the class as a group + the examiners for about 15 mins very soon after the assessments to get feedback

THANK YOU VERY MUCH FOR AGREEING TO PARTICIPATE IN THIS PROJECT.

APPENDIX G

PROTOCOL FOR THE GROUP ORAL ASSESSMENTS: ROUND THREE

In preparation for the oral exam:

Put up a roster with the **day, date and time slots for each session**, (and of course other relevant details regarding the assessment) eg:

SESSION 1: WED, 29 MAY 2002
08:30 - 09:00

		SURNAME	FIRST NAME/S	REG. NO
1				
2				
3 (up to 7)				

Students must then fill in their names on the roster - they can therefore plan/determine who will be in the group/session that they're being assessed. This will also help alleviate the problems of clashes, because students will not choose times in which they have clashes. Each candidate will bring two other candidates into the room with him/her.

Students must be informed that once they put down their name/details on the roster, they are bound to that time-slot and they must regard it as an appointment to be assessed. Lecturers must confirm dates and times timeously with students. If a student is absent for the group assessment, the rest of the group **will continue** with the assessment The absentee may be dealt with in terms of departmental rules.

Students will be assessed in groups of 7 (in the case of an odd number eg. 35 or in groups of 8 if there's an even no. of students)

Students will have to be informed about the format of the oral exam, which is as follows:

1 Students will be seated in a room adjoining the examination room. Students for session 1 must be seated by 08:50 and for session 2 (depending on the break) by 10:50. Put up the roster in this room, so that it serves as a reminder to them of their turn and it will avoid confusion.

2 The session will start on time. Students must be present (in adjoining room) at least 10 mins before the start of the session - so that they can get their groups together and be in readiness. Students will not be allowed to enter the exam room once the assessment session is in progress.

3 Each group will get 28 mins in total - not more not less. It might happen though, that some groups may know their work so well that they will finish before the allotted time -

this is perfectly OK. We cannot allow anyone extra time. Strive to give each candidate at least 3 mins of talk-time.

4 The candidates must be scored on a grid provided - this must be shown to students and discussed with them in class prior to the assessment.

4 Explain why the session is being taped - ie.
a) for transparency/for the students' benefit in the event of a query and a record of the proceedings
b) for research purposes

5 Convey to the students that they should view this/the session as an informal chat and as an opportunity to learn. They should feel free to talk about what they have learned and to share their ideas - that not being able to answer a question or two must not be regarded as a tragedy. It is an opportunity to learn and to share ideas.

6 Tell students that they must feel free to illustrate their answers on the board (provide pen/chalk and eraser/duster)

7 Impress upon them that their language skills/competencies are not being assessed.

8 Impress upon them that they must seek clarity or ask you to explain or re-phrase if they do not understand what you're asking/saying - that they must feel free to talk to you AND **that they will not be penalised in any way for seeking clarity**.

9 Emphasize that when you or the moderator/co-assessor asks them to re-phrase or explain something/seek clarity, it does not mean that you want to intimidate them or make them feel awkward, but rather that you want to maximise their opportunity of performing at their optimum. That they do not get this opportunity to explain themselves (until the examiner understands) in the written exams and they should therefore look at this positively.

PROCEDURE:

3. **The exam room**: Examiner, co-examiner/s, and 1 group (7 or 8 candidates/students) at a time. The exam room must have a board, chalk/pen and duster or flip chart and pen + blank sheets of paper + a silent clock so that everyone can keep track of the time. Leave writing material on the desks for the students to use.

2 Smile, greet the students

3 Introduce yourself and the co-examiner. Explain **very** briefly (as this would have been done in class before) how the assessment will proceed. Make small talk with the group so that they feel relaxed. Try to put them at ease.

4 Put up the question or 2 questions of equal value on a transparency together with the sub-

questions (and have this printed on a sheet of paper too) **or** write the questions on the board (personally I prefer having the questions on the board so that the students can always refer to it during the assessment).

5 Give the typed questions to the group. Allow the group 4 mins to plan responses to these questions. They can jot down ideas (not write whole essays) - students may discuss the questions with each other/in the group – allow them to chat. In the meantime the examiners can get ready.

6 Candidates can answer the questions in any order that they choose. They can also decide how they are going to answer the question, ie. they can divide the question among themselves and decide which section (and in what order) they would like to answer.

Each student is allowed approx 3 mins to answer a question. Try to break up this 3mins of talk time. If you allow a student to speak for 3 mins at a stretch – the others may feel that this student is monopolizing the assessment. I will keep time to ensure that no candidate takes up more than the allotted 3 mins. At the end of the 25 mins (4 + 21), the group will have 3 mins to come back to any missed answer or any question they want to revisit. Students may also ask you questions in this time, or use it to pose questions to their colleagues. Each group of 7 students will therefore be allotted 28 mins.

This leaves 2 mins for the group to exit and for the next group to come in. Please remember, group members are allowed to assist each other (verbally and non-verbally) during the assessment.

Remember:

1 Ask follow-up questions or probe where necessary. Assist students with verbal or non-verbal cues where they need help. Avoid long silences as this will just waste time. Ensure that any one student does not dominate the discussion, by saying something like, "thank you, Sipho - that was great. Bheki, what is your view on ...?"

2 Try not to write too much while the student is talking as this will make the student nervous - and it will be difficult to maintain a conversation

3 Allow the co-examiner to ask some of the questions AND to help you to re-phrase questions/instructions where necessary - so that s/he is not regarded as an "observer" or "intruder" and students don't get nervous

4 Encourage students with your non-verbals, pay attention to your facial expressions - look encouraging. Do not frown, scowl or look bored.
Also, make encouraging sounds like: uh huh; well done; that's great; fantastic; I like that; go on (encouraging them to say more)...

5 If the student says something wrong, say for example: "okay, let's look at this differently"; "... what about..."; "let's backtrack a little"; ...

6 If it is obvious that the student absolutely does not know an answer, move on to something else, so that there is no uneasy long silences or wastage of time.

7 Please leave the room during the break (between sessions) so that you will feel refreshed when you get back.

8 Absentees should be dealt with in the same manner as is done for a written assessment - this must be communicated to the students well in advance of the assessments.

FOR THE EXAMINER AND THE CO-EXAMINER:

1 Please draw up 2 sets of questions, 1 set for the 1st session (eg. 09:00 - 10:30) and one set for the 2nd session (eg. 11:00 - 12:00) – so that there is a 30 min. break @10:30 - this is of course for the examiners and co-examiners to decide. Please indicate the breaks on the roster as well so that students are aware of this, and all concerned can take an uninterrupted break.

When drawing up the questions, please ensure that all the questions have the same weighting (eg. all are out of 10).

2 You may give the group one or two major questions and give them 4 mins to prepare - they can talk to each other/discuss it and decide how they'll answer, they have to nominate different students to answer different parts of the question as long as all the members of the group are participating. Where there are two questions, the group will have to decide which members will answer q1 and which will answer q.2. This is after all, a group assessment, so they must work with each other.

3 Examiner and co-examiner to please score each student on the grid separately. Please use the 3rd grid to put down the 'agreed upon' mark, ie. the mark that will be entered onto your markheet. I need all three sheets for my research purposes, please.

4 Impress upon students that if they inform others of the questions (which will vary) that they are actually disadvantaging themselves.

5 Examiners, co-examiners and students to please note that there will be a Focus Group Discussion at the end of all the assessments. Date and time to be finalised by all concerned.

THANK YOU VERY MUCH FOR AGREEING TO PARTICIPATE IN THIS PROJECT.

APPENDIX H

STUDENT QUESTIONNAIRE

..... 2001

Dear Student

I am presently engaged in a doctoral research project to investigate the influence of the use of mixed mode assessment (oral and written in combination) in the testing of content in Science at tertiary level.

Following your recent oral assessment, I would be very grateful if you would complete the attached questionnaire. Your attitude and your feelings regarding the oral assessment would be of tremendous value to this project as it would give us an insight into your experience and it would inform the structure and content of future oral assessments.

Please be assured that all information you provide will be treated as confidential and that your anonymity is guaranteed.

Thank you for your co-operstion.

.....

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4000

Tel.: (031) 3086720/3086735
082 706 4642

Fax: (031) 3086734 (Att: Penny)

e-mail: pennysin@wpo.mlsultan.ac.za

Please answer the following question by placing a [√] in the appropriate box:

1 Gender:
1.1 Male [ ]
1.2 Female [ ]

2 Level of study
2.1 2nd year [ ]
2.2 repeating 2nd year [ ]
2.3 3rd year [ ]
2.4 repeating 3rd year [ ]

3 What language do you speak at home?
3.1 English [ ]
3.2 Afrikaans [ ]
3.3 Zulu [ ]
3.4 Xhosa [ ]
3.5 Hindi [ ]
3.6 Tamil [ ]
3.7 Other (please specify) [ ]

_____

4 In what language do you normally speak to:
4.1 your fellow students? _____
4.2 your friends? _____
4.3 the staff at your institution? _____

5 Which language would you prefer to be assessed in? _____

6 Have you done an oral assessment (question/answer session) at tertiary level before?
6.1 Yes [ ]
6.2 No [ ]

If you answered *yes* to 6 above, please provide the following information:

6.1.1 the year in which you did the oral assessment _____
6.1.2 the subject in which you did the oral assessment _____

Please answer the following regarding the oral assessment:

7 Please √ one or more of the following that best describes your feelings on the day of the oral assessment

7.1 nervous [ ]
7.2 afraid [ ]
7.3 excited [ ]
7.4 looking forward to the assessment [ ]
7.5 other (please specify) [ ]

_____

Please explain why you felt this (your answer in 7) way _____

_____

8 Did you feel more nervous before this oral assessment than you usually do before a written assessment?

8.1 Yes [ ]
8.2 No [ ]

If you answered *yes*, please explain why: _____

_____

_____

9 Please √ one or more of the following that best describes your feelings/thoughts while you were sitting in the room during the session listening to the others

9.1 it helped me to understand the process of the oral assessment [ ]
9.2 I was getting bored [ ]
9.3 it helped me to prepare for my turn [ ]
9.4 I learned more about the subject matter [ ]
9.5 it made me nervous [ ]
9.6 other (please specify) [ ]

_____

_____

10 How did you feel about having other students present while you were being assessed?

10.1 comfortable [ ]
10.2 uncomfortable [ ]
10.3 did not make a difference [ ]

Please explain why _____

_____

11 Were you satisfied with the way in which the assessment was conducted?

11.1 Yes [ ]
11.2 No [ ]

12 Do you think that 10/15 minutes was adequate for the oral assessment?
12.1 Yes [ ]
12.2 No [ ]

If you answered *no*, please explain why _____
_____
_____

13 What did the examiner do (if anything) to put you at ease?
13.1 did not try to put me at ease [ ]
13.2 smiled [ ]
13.3 made small talk [ ]
13.4 cracked jokes [ ]
13.5 other (please specify) _____
_____
_____

14 Did the examiner succeed in putting you at ease?
14.1 Yes [ ]
14.2 No [ ]
If you answered *no* to 14, please state what you think the examiner should have done to put you at ease _____
_____

15 The following statements describe the nature of oral assessment. Please **rate** each of these statements by using the 5-point scale below, to indicate how important **you** consider each statement in taking an oral assessment.

Please answer this question by rating each of the 4 statements below on a scale of 1 to 5 where:

1 = not important
2 = slightly important
3 = does not make a difference
4 = important
5 = very important

15.1 students can seek clarity from the examiner when they do not understand the question/instruction [ ]
15.2 the examiner can seek clarity from the student when s/he does not understand the student's response [ ]
15.3 the examiner can assist the student who is unsure by providing clues or asking shorter questions until the student can answer [ ]
15.4 the students can rephrase their answers or illustrate them on the board so that the examiner understands what they are trying to say [ ]

16 Please state any disadvantage/s that you experienced during the oral assessment:

_____

_____

_____

_____

17 Please indicate how you felt about seeking clarity from the examiner by placing a √ next to the appropriate statement/s:

17.1 I saw it as an opportunity to really understand the question [ ]
17.2 I used it to confirm whether I was on the right track or not [ ]
17.3 I was intimidated by the examiner and therefore did not seek clarity [ ]
17.4 I was too nervous to ask for clarity [ ]
17.5 other (please specify) [ ]

_____

18 Please indicate how you felt when the examiner sought clarity from you by placing a √ next to the appropriate statement/s:

18.1 I welcomed the opportunity to rephrase my answer [ ]
18.2 it gave me an opportunity to rethink my answer [ ]
18.3 I felt the examiner was trying to make me uncomfortable [ ]
18.4 other (please explain) [ ]

_____

_____

19 Do you feel that it is easier to prepare for an oral or a written assessment? Please √ the appropriate box:

19.1 oral [ ]
19.2 written [ ]

Please explain why: _____

_____

_____

20 How would you rate your level of preparedness for this oral assessment? Please √ the appropriate box:

20.1 very good [ ]
20.2 good [ ]
20.3 fair [ ]
20.4 poor [ ]
20.5 very poor [ ]

21 Did you study differently for this oral assessment as compared to a written assessment?

21.1 Yes [ ]
21.2 No [ ]

If you answered *yes* to 21, please explain what you did differently _____

_____

_____

_____

22 Please √ the appropriate box below:

22.1 oral assessments afford students a better opportunity (than written assessments) to learn more about the subject matter [ ]

22.2 written assessments afford students a better opportunity (than oral assessments) to learn more about the subject matter [ ]

22.3 both the oral and the written assessments afford students equal opportunity to learn more about the subject matter [ ]

Please explain your answer: _____

_____

23 Please √ the appropriate box below to indicate your preference:

23.1 oral assessments are a more accurate reflection of my capabilities [ ]

23.2 written assessments are a more accurate reflection of my capabilities [ ]

23.3 a combination of oral and written assessments are a more accurate reflection of my capabilities [ ]

Please explain your answer above: _____

_____

_____

24 Please √ the appropriate box to indicate whether you agree or disagree with the following statement

Oral assessments are easier to do than written assessments

24.1 agree [ ]

24.2 disagree [ ]

25 Disregarding all other issues, do you personally feel that you communicate better in writing or by speaking?

25.1 writing [ ]

25.2 speaking [ ]

26 Any comment (positive or negative) that you would like to make regarding the oral assessment: _____

_____

_____

_____

Thank you very much for taking the time to complete this questionnaire.

APPENDIX I

ORAL ASSESSMENT GRID

Date : _____
Subject : _____ Level of study: ___
Examiner : _____
Co-examiner : _____
****
STUDENT NAME : _____
REG. NO : _____

** **EXAMINER/CO-EXAMINER, PLEASE NOTE**: THE STUDENT MUST BE GIVEN A **MARK OUT OF 5** FOR **EACH CATEGORY**. The second column merely shows the weighting of the marks.	stud's mark: /5	Weight	stud's mark x weight
Knowledgeable eg. good background knowledge; knows theory; good basic knowledge; student has adequate information about the subject matter.		5	
Integrative skills - Critical thinker eg. analytical; has problem-solving ability; able to demonstrate clear reasoning + - Application of concepts eg. can use prior knowledge to forecast potential problems/solutions		4	
Logical eg. student presents information in logical order; arrives at a logical conclusion or can make logical deductions and/or draw inferences from the information presented		4	
Prompting eg. student needs little prompting to arrive at a conclusion, make deductions or draw inferences; student needs little prompting to provide answers to questions asked		2	
Presentation eg. student speaks clearly; can be easily understood; articulates/communicates thoughts and ideas clearly		2	
TOTAL	25	17	

Comments: _____
_____

APPENDIX J

EXAMINER/CO-EXAMINER QUESTIONNAIRE

_____ 2001

Dear Examiner/Co-Examiner

I am presently engaged in a doctoral research project to investigate the influence of the use of mixed-mode assessment (oral and written in combination) in the testing of content in Science at tertiary level.

Following your recent oral assessment, I would be very grateful if you would complete the attached questionnaire. Your attitude and your feelings regarding the oral assessment would be of tremendous value to this project as it would give us an insight into your experience and it would inform the structure and content of future oral assessments.

Please be assured that all the information you provide will be treated as confidential and that your anonymity is guaranteed.

Thank you for your co-operation.

_____

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082 706 4642
Fax.: 3086734 (Att: Penny)

e-mail: pennysin@wpo.mlsultan.ac.za

Please answer the following by placing a √ in the appropriate box:

1 Gender:
1.1 Male [ ]
1.2 Female [ ]

2 Your position in the institution:
2.1 lecturer [ ]
2.2 senior lecturer [ ]
2.3 head [ ]
2.4 dean [ ]
2.5 other (please specify) [ ]

3 Years of experience at tertiary level:
3.1 1 - 5 [ ]
3.2 6 - 10 [ ]
3.2 11 - 15 [ ]
3.3 more than 15 [ ]

4 Have you conducted an oral assessment (question/answer session) at tertiary level before?
4.1 yes [ ]
4.2 no [ ]

5 If you answered *yes* to 4 above, please provide the following information:
5.1 the year/s in which you did the oral assessment

_____

5.2 the subject/s in which you did the oral assessment

_____

6 Have you been a candidate at an oral assessment (question/answer session) at tertiary level before?
6.1 yes [ ]
6.2 no [ ]

7 If you answered *yes* to 6 above, please provide the following information:
7.1 the year/s in which you did the oral assessment

_____

7.2 the subject/s in which you did the oral assessment

_____

8 What language do you speak at home? _____

9 In what language do you think students should be assessed?
9.1 their mother-tongue? [ ]
9.2 English [ ]

Please answer the following regarding the oral and written assessment:

10 What, if anything did you do to put the students at ease?

_____

_____

_____

_____

11 How many questions on average was each student asked?

11.1 1 - 5 [ ]

11.2 6 - 10 [ ]

11.3 more than 10 [ ]

12 Did the number of questions asked to the student affect the final mark allocated?

12.1 Yes [ ]

12.2 No [ ]

Please explain your answer

_____

_____

_____

13 Was the same material assessed in a written test?

13.1 Yes [ ]

13.2 No [ ]

13.1 If yes, how did the oral and written tests assess the same material differently?

_____

_____

_____

13.2 How did the students fare in the oral assessment in comparison to the written assessment?

13.2.1 better [ ]

13.2.2 worse [ ]

13.2.3 no significant difference [ ]

Please explain your answer: _____

_____

_____

_____

14 Please one or more of the following that describes your response when a student was unable to answer any of the questions:

14.1 I provided clues to help the student [ ]
14.2 I broke up the question into shorter questions [ ]
14.3 I drew on the board to illustrate my question [ ]
14.4 I moved on to the next question [ ]
14.5 I asked the student to think harder [ ]
14.6 Other (please specify) [ ]

_____

_____

15 Do you think that your mood/emotional state affected the interaction between you and the student at any stage?
15.1 Yes [ ]
15.2 No [ ]

If *yes*, please explain how and why this happened _____

_____

16 How did you differentiate in terms of marks if a student demonstrated a deep understanding of the subject matter as compared to a student who simply answered the questions asked? _____

_____

_____

17 Do you think that students who were assessed later in the day were:
17.1 advantaged in terms of the questions asked?
17.1.1 Yes [ ]
17.1.2 No [ ]
Please explain _____

_____

17.2 Disadvantaged in terms of the emotional state or tiredness of the examiner?
17.2.1 Yes [ ]
17.2.2 No [ ]
Please explain _____

_____

18 Please explain to what extent (if at all) each of the factors below affected the way in which you assessed the student:

18.1
18.1.1 student's style of language use/delivery (in the oral) : _____

_____

_____

18.1.2 student's style of language use (in the written assessment): _____

_____

_____

18.2 student's physical appearance: _____

_____

_____

18.3 student's race: _____

_____

_____

18.4 student's gender: _____

_____

_____

18.5 your knowledge of a student (eg. student's: prior involvement in class; personal conduct; previous marks/assessments):

_____

_____

_____

_____

19 How would you evaluate/compare assessment in the oral to assessment in the written (eg. in terms of the: student; process; assessment; ...) specifically with regard to:

19.1 anonymity in the written to face-to face interaction in the oral assessment?
oral: _____

_____

written: _____

_____

19.2 the effect of your mood/emotional state?
oral: _____

_____

written: _____

_____

19.3 comprehension of questions and answers (both for the students and the examiners)?
oral: _____

_____

written: _____

_____

20 The following statements describe the nature of oral assessment. Please **rate** each of these statements by using the 5-point scale below, to indicate how important **you** consider each statement in taking an oral assessment.

Please answer this question by rating each of the 4 statements below on a scale of 1 to 5, where:

1 = not important
2 = slightly important
3 = does not make a difference
4 = important
5 = very important

20.1 Students can seek clarity from the examiner when they do not understand the question/instruction [ ]

20.2 The examiner can seek clarity from the student when s/he does not understand the student's response [ ]

20.3 The examiner can assist the student who is unsure by providing clues or asking shorter questions until the student can answer [ ]

20.4 The students can rephrase their answers or illustrate them on the board so that the examiner understands what they are trying to say [ ]

21 Please the appropriate box below:

21.1 oral assessments afford examiners a better opportunity to assess/test students' knowledge of a subject [ ]

21.2 written assessments afford examiners a better opportunity to assess/test students' knowledge of a subject [ ]

21.3 both the oral and the written assessments afford examiners equal opportunity to assess/test students' knowledge of a subject [ ]

Please explain your answer

_____

_____

_____

_____

22 How would you rate the students' level of preparedness for this oral assessment?

22.1 very good [ ]

22.2 good [ ]

22.3 fair [ ]

22.4 poor [ ]

22.5 very poor [ ]

23 What (if anything) would you change in future when conducting an oral assessment?

_____
_____
_____
_____
_____
_____

24 Any comment (positive or negative) that you would like to make regarding the oral and written assessments:

oral: _____
_____
_____

written: _____
_____
_____

Thank you very much for taking the time to complete the questionnaire

APPENDIX K

SOUTH AFRICAN SURVEY

Dear Dean

I am presently engaged in a doctoral research project to investigate the influence of the use of mixed-mode assessment (oral and written inj combination) as a strategy to neutralise language bias in the testing of content at tertiary level.

One aspect of this project is to conduct a survey by collecting data from the various tertiary institutions in South Africa regarding their assessment practices.

I believe that this project has tremendous implications for future instruction and assessment at tertiary level and it will endeavour to address the issue of language and the pass/failure rate. I would therefore be very grateful if the academic staff members of your faculty could complete the attached questionnaire.

This information will be used to inform my study and is crucial in that it will inform my research about the practices regarding oral assessment and the use of mixed-mode assessment.

Thank you for your co-operation.

.....

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.....

Dr Relebohile Moletsane
Senior Lecturer and Thesis Supervisor
e-mail: moletsaner@nu.ac.za

19 April 2001

Dear Participant

Please complete this questionnaire as part of a study investigating the influence of the use of mixed-mode assessment (oral and written in combination) as a strategy to neutralise language bias in the testing of content at tertiary level. The questionnaire is intended to gather information on assessment practices in South African tertiary institutions. Your contributions are crucial as your experiences and practices will play a major role in informing this study.

Please be assured that all the information you provide will be treated as confidential and that your anonymity is guaranteed.

Your name (optional) _____

Name of your institution _____

Name of your faculty _____

Name of your department _____

Subject/s that you teach _____

Please answer the following by placing a cross [x] in the appropriate box:

1	Gender	
1.1	Male	[ ]
1.2	Female	[ ]
2	Your years of experience lecturing at tertiary level:	
2.1	1-5	[ ]
2.2	6-10	[ ]
2.3	11-15	[ ]
2.4	more than 15 years	[ ]
3	Please indicate the approximate percentage (%) of students in a typical class that you teach:	
3.1	African	[ ]
3.2	Indian	[ ]
3.3	Coloured	[ ]
3.4	White	[ ]
3.5	other (please specify)	[ ]

_____

Kindly answer the following questions as fully as possible:

4 Please indicate which of the following forms of assessment you presently use with your students by putting down the percentage that each of these assessments contributes to the student's final mark:

4.1 written tests [ ]
4.2 assignments [ ]
4.3 projects [ ]
4.4 portfolios [ ]
4.5 oral presentations [ ]
4.6 oral tests/examinations [ ]
4.7 other (please specify) [ ]

_____
_____
_____
_____

5 Do you test subject content orally?

5.1 Yes [ ]
5.2 No [ ]

If you answered YES to question 5, please proceed to question 6
If you answered NO to question 5, please proceed to question 11

6 What are your reasons for using oral assessments?

6.1 to assist in the improvement of the students' communication skills [ ]
6.2 to test the students' deeper understanding of concepts [ ]
6.3 to allow the students to express themselves verbally [ ]
6.4 to test application of knowledge [ ]
6.5 other (please explain) [ ]

_____
_____
_____
_____

7 Please complete the following information for those subjects in which you assess content orally:

Subject for which you test content orally + year of study (eg. 1st ...)	**Form of assessment (eg. vivas; presentations; question/answer session; interviews ...)**	**Are the students assessed individually (I) or in groups (G)? How many in each group?**	**How long (in minutes) is each session?**	**How many examiners are there for each session?**

8 Do you combine the above mark with the mark obtained for a written assessment for each student?

8.1 Yes [ ]

8.2 No [ ]

9 Please indicate the percentage (weighting) that each contributes to the final mark of the student:

9.1 oral assessment [ ]

9.2 written assessment [ ]

Please explain the reasons for the above breakdown:

_____

_____

_____

_____

10 Please indicate with an [x] what particular advantages and/or disadvantages you have experienced with oral assessments:

10.1 misunderstandings due to language are minimized [ ]
10.2 oral assessments allow the examiner to probe for deeper understanding [ ]
10.3 students can ask the examiner to clarify/explain the question/instruction [ ]
10.4 the examiner can ask the student to explain further/substantiate [ ]
10.5 the examiner can seek clarity on a response from the student [ ]
10.6 oral assessments are time-consuming [ ]
10.7 block-booking venues are a problem [ ]
10.8 conducting oral assessments for large classes is tiring [ ]
10.9 other (please explain) [ ]

_____
_____
_____
_____

11 If you are not using oral assessment, please state why

_____
_____
_____
_____

12 Please indicate with a [x] what your view of mixed-mode (combination of the oral and the written) assessment is:

12.1 not useful [ ]
12.2 useful [ ]
12.3 very useful [ ]

Please give reasons for your response above

_____
_____
_____
_____

Please mail the completed questionnaire to me in the S.A.S.E provided.

Thank you for taking the time to complete the questionnaire.

Please e-mail pennysin@wpo.mlsultan.ac.za should you have any questions/queries/comments.

APPENDIX L

INTERNATIONAL SURVEY

Dear Professor

I am presently engaged in a doctoral research project to investigate the influence of the use of mixed-mode assessment (a combination of the oral and written) as a strategy to neutralise language bias and facilitate critique in the testing of content at tertiary level.

One aspect of this project is to survey current practice abroad for the purpose of control and contrast and to examine the methodologies being employed.

I believe that this project has tremendous implications for future instruction and assessment at tertiary level and that it will endeavour to address the issue of language and the pass/failure rate at tertiary level in South Africa. I would therefore be very grateful if you would complete the attached questionnaire.

Please be assured that your responses to the questions will be treated with strict confidentiality and that your anonymity is guaranteed.

Thank you for your co-operation and for taking the time to fill in this questionnaire.

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RESERVOIR HILLS
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Durban; KwaZulu-Natal;
South Africa

PERSONAL DETAILS

Name of Institution: _____

Physical address of institution: _____

_____

_____

Postal address of institution: _____

_____

_____

The department in which you teach: _____

The faculty in which you teach: _____

The subject/s you teach: _____

_____

_____

1 Please indicate with a tick [√] which of the following forms of assessment you presently use with your students

written tests [ ]
assignments [ ]
projects [ ]
portfolios [ ]
oral presentations [ ]
oral tests/examinations [ ]
other (please specify)

2 What percentage does each of the above (that you have ticked) contribute towards the students' final mark?

2.1 written tests [ ]
2.2 assignments [ ]
2.3 projects [ ]
2.4 portfolios [ ]
2.5 oral presentations [ ]
2.6 oral tests/examinations [ ]
2.7 other (please specify)

_____

_____

3 Do you test subject content orally?

3.1 yes [ ]
3.2 no [ ]

4 If you answered YES to question 3, what percentage of the final mark does the oral assessment constitute?

_____

_____

5 Please explain how the rest of the mark is constituted (in percentages)

_____

_____

_____

_____

6 What is your/your institution's purpose/aim in using oral assessments?

_____

_____

_____

_____

_____

_____

7 Please complete the following information:

Subjects/ courses for which you test content orally	**Year of study in which oral assessment is used**	**Are these subjects/courses assessed by continuous evaluation or examinations**

8 What form do these assessments take (eg. presentations; vivas; interviews; question/answer sessions...)? Please indicate the subject in brackets.

_____
_____
_____
_____
_____
_____

9 Please explain how these oral assessments are conducted by completing the following:

Course/ subject + level/ year of study	**Are the students assessed individually or in groups (how many in each group)?**	**How many examiners are there for each session?**	**How long (in minutes) is each session?**

10 Do the above students also **write** an exam/test in addition to the oral assessment?

10.1 yes [ ]

10.2 no [ ]

11 If you answered YES to question 10, please proceed to question 12.
If you answered NO to question 10, please proceed to question 15.

12 Do you combine the oral and written mark for each student?

12.1 yes [ ]

12.2 no [ ]

13 Please explain the reasons for your answer in 12.

_____

_____

_____

_____

_____

_____

14

14.1 Do your students generally fare better in the oral or in the written assessment?

_____

_____

_____

14.2 What reasons can you advance for the above?

_____

_____

_____

_____

_____

_____

15 How do students feel about the oral assessment?

16 How do the staff in your department feel about oral assessment?

17 Is the oral assessment a question/answer session?

17.1 yes [ ]

17.2 no [ ]

18 If you answered NO to question 17, please state exactly what the oral assessment constitutes/what students are expected to do

19 If you answered YES to question 18, please answer the following questions:

19.1 Do you hold public or private exams?

19.2 Please explain how many people are present and why

19.3 What do you do (if anything) to put the candidate/student at ease?

19.4 How many questions on average is each student asked?

19.5 If a student is unable to answer any of the questions, how do you (as the examiner) respond?

19.6 Does the mood/emotional state of the examiner affect the interaction/assessment?

19.7 Please explain your answer in 19.6

19.8 How does the state of freshness/tiredness of the examiner affect the interaction/assessment?

19.9 To what extent is an examiner allowed to probe (to check level of understanding)?

19.10 How does the examiner differentiate in terms of marks if a student demonstrates a deep understanding of the subject matter as compared to a student who has simply answered the basic questions asked?

19.11 Are examiners allowed to 'tack on' or ask 'follow up' questions to the student's answer?

19.11.1	yes	[ ]
19.11.2	no	[ ]

19.12 If you answered YES to 19.11, to what extent is this allowed?

19.13 How is the student's marks affected by the 'follow up' questions?

19.14 How are the questions selected for the oral assessment?

19.15 Who is responsible for setting the questions?

19.16 How do examiners ensure that students who are assessed later in the day are not advantaged in terms of knowledge of the questions asked?

19.17 How do examiners ensure that they have an 'inexhaustible' supply of questions?

19.18 How are the questions moderated/standards maintained?

19.19 How are the students prepared for this oral assessment?

19.20 Do the students have any prior knowledge of possible questions that they may be asked?

19.20.1	yes	[ ]
19.20.2	no	[ ]

19.21 If YES, how do they obtain this prior knowledge?

19.22 Please explain the assessment criteria that you use for the oral assessment

19.23 How are student marks moderated?

19.24 How is reliability ensured?

19.25 How is validity ensured?

20 What particular advantages and/or disadvantages have you experienced with oral assessments (both for yourself and the student)?

Advantages:

Disadvantages:

20 Please describe your feelings about/ attitude to the oral assessment of subject content

21 Please describe your feelings about/attitude to the proposed mixed-mode assessment of subject content

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete this questionnaire.
Please e-mail pennysin@wpo.mlsultan.ac.za should you have any questions/queries/comments.

APPENDIX M

Focus Group Discussion: Students

1 In terms of language, do you feel that the orals helped you to:

1.1 understand the questions better?

1.2 Answer the questions better?

2 In terms of language, how do you feel about the written assessment?

3 How would you compare the oral assessment to the written assessment in terms of understanding?

4 Were you in any way affected by the examiners in terms of their:

4.1 race?

4.2 sex?

4.3 way in which they speak English?

4.4 their facial expression, tone of voice, manner?

5 Would you have preferred different examiners? Why?

6 Did you feel any different after having done the orals once?

7 How did you feel when the examiner was prompting or probing your response?

8 Do you think that the mixed-mode of assessment is a fair reflection of your capabilities?

9 Were you comfortable with the other students being present?

10 Which format do you prefer, the individual or the group oral? Why?

11 What benefits if any, did you get out of the oral assessments?

12 Are there any changes that you would like to see in terms of the oral assessments?

APPENDIX N

Focus Group Discussion: Assessors

1 In terms of language, do you think that the oral assessments helped you understand the student's better (than in the written test)?

2 What benefits, if any, did you get out of the mixed-mode of assessments?

3 What suggestions do you have for cutting down on time when doing the oral assessments?

4 How would you compare the EFL students to the ESL students in respect of:

4.1 their responses in the oral?

4.2 their marks in the oral

4.3 their responses in the written assessment?

4.4 their marks in the written assessment?

4.5 preparation for the oral

4.6 preparation for the written?

5 Were there any significant differences in individual's student's performance that did the mixed-mode assessments more than once?

6 Do you think that a combination of the oral and written mark is a fair reflection of the students' capabilities?

7 Which format do you prefer, the individual or the group orals? Why?

8 Do you have any suggestions for change for the oral assessments?