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ACADEMIC WRITING ABILITY AND PERFORMANCE OF FIRST YEAR UNIVERSITY STUDENTS IN SOUTH AFRICA

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A research report submitted to the Discipline of Psychology, Faculty of Humanities, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Education (Educational Psychology)

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Declaration

I hereby declare that this research report is my own unaided work. It is being submitted for the degree of Master of Education (Educational Psychology) at the University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination at any other university.

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Date

Abstract

Poor academic performance and high failure rates in South African tertiary institutions have lead to a need for intervention of some sort. Academic performance is said to be strongly influenced by one's academic writing ability. Therefore, this study aimed to determine how much influence academic writing ability has on academic performance. It also aimed to establish which measure - the International English Language Testing System (IELTS) or Wechsler Individual Achievement Test II (WIAT-II) - is a more accurate measure of academic writing. Lastly, the research aimed to determine whether any differences between English First Language (EFL) and English Additional Language (EAL) students' exist. A convenience sample of 125 first-year Psychology students from the University of the Witwatersrand wrote argumentative essays that were analysed quantitatively using the IELTS and WIAT-II scoring system. Correlations and t-tests, as well as regression and reliability analyses were used to investigate the aims and establish the results. From the results it was evident that the IELTS and WIAT-II are both adequate measures of academic writing. However, the results showed that academic writing ability is not a major predictor of and contributor towards academic performance. Significant differences in performance were noted between groups of EFL and EAL students on all measures. The results also showed that failure rates were not as high in this sample as in previous statistics. Further investigation is required in order to determine other factors that contribute to one's academic performance. Other aspects of academic literacy such as reading and speaking, as well as previous preparedness or intelligence, may need to be considered as determining factors of academic success.

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Chapter 1: Introduction and Literature Review

1.1 Introduction

This study aimed to investigate whether academic writing ability is a predictor of academic performance at a first-year university level in a South African context. The academic writing ability of 125 first-year students was evaluated using two measures – the International English Language Testing System (IELTS) and the Wechsler Individual Achievement Test (WIAT-II). Academic performance was determined by the first semester results for the students' Psychology 1001 (Psych1001) course. This mark was comprised of an examination, two essays and two tests.

In the chapters that follow, literature regarding first-year university statistics, language in South Africa, language acquisition, writing and writing tests in South Africa will be discussed. The methodology will discuss the procedure that was undertaken in producing this research, including sampling. Information on the data collection and analysis processes of the research will also be discussed. A discussion of the results, with reference to the research aims and questions, as well as the literature, will be provided. Lastly, strengths and limitations of the study, as well as recommendations for further research in this field will be discussed.

1.2 Literature Review

There are numerous factors that contribute to one's success or lack thereof at university level. In South Africa, these factors can include a student's background (academic and other), psychosocial factors – especially with regard to disadvantaged learners, and cultural differences (Fraser & Killen, 2003 and Petersen, Louw, & Dumont, 2009). It is also possible that students' learning disorders or other barriers to learning, as well as one's innate intellectual ability are contributing factors to one's success or lack thereof at a tertiary level of education. Feast (2002) also identified the institution, such as university or school and its teaching methods, as a contributing factor. Language differences between the institution's language of teaching and the student's home language, resulting in "low levels of competency" (van Dyk, Zybrands, Cillie, & Coetzee, 2009, p. 333) are also elements that need to be considered (Feast, 2002). Similarly, poor or no proficiency in the language of

instruction can contribute towards academic difficulties and successes (Butler & van Dyk, 2004).

Numerous studies have found that one of the main reasons for failure in first year, or high student dropout rates, is due to academic under preparedness (Makoni, 2010). The most prominent cause of this academic under preparedness is the inequalities of the past, and repercussions of the apartheid regime. In particular, Bantu education, which was prescriptive in the type of education it 'allowed' for African students, has resulted in some of this deprivation, lack of preparedness and inequality (Butler & van Dyk, 2004). Apartheid policies regarding segregated education opportunities have influenced policies and education today. Due to "inequalities that still exist in the secondary school system" (Nagel, 2010), for example the importance that is placed on English or Afrikaans as the only medium of instruction, many students are not performing adequately in tertiary education. This under-preparedness could take the form of inadequate teaching at high school level, especially in a subject such as English which is necessary for all academic encounters such as assessment, presentations, teaching and learning, in university. This under preparedness could also be a result of regular changes in the schooling system – for example, curriculum changes, changes with matriculation examinations and language policies (van Dyk, Zybrands, Cillie, & Coetzee, 2009).

Academic literacy, which encompasses reading, writing, listening or speaking, have been determined in studies to be a main reason for success or lack of academic success in university students (van Dyk, Zybrands, Cillie, & Coetzee, 2009). Learners who do not speak English as their first language are often being taught and assessed in English. Not only do these learners have to grapple with learning new and advanced subject matter as they proceed through school and university, but also with learning the subject matter in a different language to their mother tongue. According to Greenbaum and Mbali (2002), "acquiring a discourse" (p. 234) is difficult and problematic for English First Language (EFL) and English Additional Language (EAL) learners and students for reasons mentioned above regarding learning of new subject matter (for EFL and EAL learners) as well as learning the new subject matter in an unfamiliar, non-mother tongue language (for EAL learners). Many learners and students are "inadequately equipped to engage successfully in the academic discourse" (van Dyk, Zybrands, Cillie, & Coetzee, 2009, p. 334) required of them in a particular subject. Additionally, tertiary education students struggle to cope with the demands

placed on them in terms of reading and writing expectations for course work (Butler & van Dyk, 2004).

Curriculum 2005 (C2005) was introduced in order to rectify previous inequalities in the education system. An integral part of C2005 was Outcomes-Based Education (OBE), which focused on outcomes, and what the learner can achieve, which are "high quality culminating demonstrations of significant learning in context" (Spady, 1994, in Killen, 2000, p. 49). OBE and C2005 encouraged more learner participation, and less rote learning, where the teacher acted as a guide and facilitator as opposed to an imparter of knowledge (Bertram, 2001 and Killen, 2000). However, the implementation of OBE in South Africa was not as successful as it had been in other parts of the world. A lack of resources, lack of adequate teacher education, poor infrastructure and lack of teacher training in the new policies resulted in a relative failure of OBE to achieve what it had intended (Harley & Wedekind, 2004). Many teachers did not place enough emphasis on learning, and would instead use group work so that learners could learn from each other. While this was one of the suggestions of OBE, many teachers did not act as facilitators of the group activities as they should have. Similarly, the non-descriptive nature of the content resulted in unequal teaching and learning in different institutions, placing some learners at a disadvantage (Harley & Wedekind, 2004). These disruptions in policy and essentially disruptions in teaching and learning have had negative impacts on the learners who were involved, which is a contributing factor to poor performance of tertiary education students now.

Following the 'phasing out' of C2005 and the principle of OBE, the National Senior Certificate (NSC) examination was first introduced in 2008, in place of the previous Senior Certificate (SC). The NSC was, as the name suggests, a national examination and curriculum, as opposed to the previous provincial SC examinations (Grussendorff, Booyse, & Burroughs, 2010). The NSC was based on the New Curriculum Statement (NCS) which stipulated that all grade 10, 11 and 12 students were required to take seven subjects (Education statistics in South Africa 2008, 2010). Two of the subjects had to be languages, and new subjects such as Life Orientation and Mathematical Literacy were offered. In 2008, 62.2% of South African matriculants passed. Of the total number of students, 19.1% qualified for a bachelors programme, 23% qualified for a diploma, 19.1% qualified for a certificate programme, and 1% passed, but were not allowed admission to a tertiary institution (Education statistics in South Africa 2008, 2010). The remaining 37.8% of those who wrote the examination in 2008

failed. In 2007, there was a 65.2% pass rate. It must be noted that these results, like the 2006 results, are based on the old curriculum, and not the new NSC curriculum (Education statistics in South Africa 2008, 2010).

These results can be compared to the 2006 matriculation results, where the previous examination system was still in place. In 2006, 66.6% of the students who wrote the examinations passed (Education statistics in South Africa 2006, 2008). Of the total number of students who wrote, 16.3% were granted admission to a university (with endorsement), while 50.3% were not granted admission, without endorsement (Education statistics in South Africa 2006, 2008). Therefore, 33.4% of those students who wrote the examination failed. The failure rates in 2006 were slightly lower than those in 2008. However, the percentage of students allowed a university entrance was higher in 2008, which could be attributed to the new framework.

Between 2005 and 2009, student success rates of first year students have ranged from between 72.2% and 73.8%. Differences can be noted between different race groups, with, for example, a 69.7% success rate among Black students in 2009 in comparison to 80.9% success rate of White students, 72.3% of Indian students, 71.9% of Coloured students and 72.1% success rate of students classified as 'Other'. Similarly, differences can be noted among students from different faculties, namely Science, Engineering and Technology (71.2%), Business and Commerce (68.4%), Education (82.3%) and Other Humanities (73.3%) in 2009 (First-Time Entering undergraduate success rates of contact and distance mode students in public higher education institutions, by race and cesm, from 2005 to 2009, 2009). These statistics are in line with data produced by the South African Department of Education that states "that 25% of first-year students at universities leave the higher education sector before the end of their first year" (van Dyk, Zybrands, Cillie, & Coetzee, 2009, p. 233). (For a full table of comparison, regarding faculty as well as race differences among distant and contact learners, see Appendix VI).

South Africa has 11 official languages. Twenty-four percent of South Africans speak isiZulu as their primary language, 17.64% of South Africans speak isiXhosa as their primary language, while only 8% of South Africans speak English (Census 2001 by province and language, 2001). In other words, 92% of South Africans do not speak English as their mother tongue or first language. It is surprising, therefore, that the majority of one's education

(throughout school, and in tertiary education) is spent learning in English, an additional, non-mother tongue language.

Many non-English speaking learners from disadvantaged or rural South African settings come from families where reading and writing is not "integral to their daily lives" (Bertram, 2006, p. 12). Emphasis is therefore not placed on these aspects of literacy, and learners are not provided with an environment that encourages practice in reading or writing. Many students come from backgrounds that are not conducive to learning. Often school-going children are expected to look after their own siblings, and are not given the opportunity to focus on their homework or studies. In cases like these, and others, parents of students are often unavailable physically, or academically to help them. The apartheid system has resulted in many parents of the current generation of school going learners being uneducated themselves. An atmosphere and general attitude of learning is sometimes lacking in situations such as these, and the importance and understanding of education is absent, making it difficult for students to succeed.

Most English learners are educated in English from when they start school. Non-English speaking learners are often educated in their mother tongue up until approximately grade 4, and are thereafter educated in English (Foxcroft & Aston, 2006). As a result of apartheid in South Africa, the education system previously faced, and still faces many difficulties – especially with regard to language of instruction in educational institutions (Barkhuizen & Gough, 1996). The consequence of these previous unequal and unfair education systems is that there is now an ongoing cycle of under preparedness among previously disadvantaged groups of students (Archer, 2010).

In 2009, the Minister of Education, Angela Motshekga was presented with a review of the implementation of the NCS. In this report, the importance of English as a First Additional Language was emphasised. The report stated that "crucial attention needs to be paid to issues of language, in particular First Additional Language English, which remains a strong predictor of student success at school" (Department of Education, 2009, p. 41). Many students from South Africa are not English speaking, but are required to know English in order to "master educational concepts...and engage meaningfully in the information age on a global stage" (Department of Education, 2009, p. 41). The report also states that many schools are only introducing English as a subject in grade 3, which is only a year before

learners are required to use English through which to learn their other subject matter (Department of Education, 2009). Policy maintains that English should be taught alongside one's home language from grade 1 (Department of Education, 2009). Many teachers may be reluctant to introduce English so early, considering their learners may not yet be academically proficient in their home language or mother tongue. The impact of these challenges and difficulties is likely to be seen as learners progress through their schooling and the education system as a whole – students who were not given the opportunity to learn English aptly over their schooling, and therefore do not have an adequate base, are likely to be disadvantaged later on.

C2005 and OBE were accompanied by numerous and varied problems and implementation difficulties. Teachers have expressed much dissatisfaction around OBE, and many of their reasons for dissatisfaction are directly related to difficulties that learners present with in high school and tertiary education. For example, teachers felt that OBE focused more on speaking, and less on writing or reading, and the fact that learners are not being assisted at home because the content is not understandable for illiterate and uneducated teachers (Bloch, 2009). Other educationalists also confirm that OBE has detracted from writing. Taylor (2008) explains that writing for children encourages their reading ability, as well as "develops their cognitive processes" (p. 5). Taylor (2008) also explains that students learn other subject matter such as history or mathematics through reading and writing, and that emphasis was not placed on reading and writing during OBE, disadvantaging and under-developing learners' abilities. OBE also placed much focus on group work, and activities such as working outside to visualise what was being studied, in this way, less focus was placed on the individual, and the development of the necessary language skills (Harley & Wedekind, 2004).

Archer (2010) provides four facts that universities and writing centres in South Africa need to keep in mind when assessing the way in which language and writing impacts on students. According to Archer (2010), the following needs to be considered:

> Firstly, most students need to write in English, a language other than their mother tongue. Secondly, the academic underpreparedness of all students, but particularly those from previously disadvantaged communities. Thirdly, all students need to learn the academic discourses of different disciplines. And finally, the fact that students

> come to tertiary institutions with different literacies [sic] and cultural conventions (p. 496).

The "different literacies [sic] and cultural conventions" that Archer (2010, p. 496) discusses, as well as reasons for under preparedness of first-year students, can be related to the students' cognitive ability and the process of accomplishing cognitively demanding tasks versus cognitively undemanding, communicative tasks.

Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP) are two terms that were introduced by Jim Cummins in 1979 (Cummins, 2008) to create a distinction between "conversational fluency and academic language proficiency" (Cummins, 2008, p. 72). He found it necessary to create this distinction after Oller (1979, in Cummins, 2008) argued that there is "global language proficiency" (Cummins, 2008, p. 71) and that all "individual differences in language proficiency could be accounted for" (Cummins, 2008, p. 71) by this factor. Oller's idea of global language proficiency is supported by various researches in that "high correlations between literacy skills and general intellectual skills" (Cummins, 1980, p. 176) have been found.

Roessingh (2006) explained BICS as the tip of an iceberg, and the type of communication that is seen and observed. In a similar fashion, CALP was described as being the rest of the iceberg, the part that is hidden, but forms a large part of the iceberg, and in this case, a large part of communication and language proficiency (Roessingh, 2006). This therefore means that "BICS may represent only about 10% of the overall proficiency of an academically competent learner" (Roessingh, 2006, p. 92). In other words, one cannot determine whether students or learners are proficient in English simply by speaking to or communicating with them. A deeper engagement of the person with academic and cognitively demanding tasks is required.

BICS can be described as somebody's conversational ability, the ability to engage with another person on a basic level. In the case of BICS, "context provides cues to support meaningful conversation" (Broom, 2004, p. 515) and skills such as "accent, oral fluency, and sociolinguistic competence" (Cummins, 1980, p. 177) are developed and acknowledged. These skills are not difficult in terms of cognitive requirements, and are developed and

acquired easily through interactions as a speaker or listener (Brown, 2004). It is believed that it takes a second language English speaker approximately two to three years of exposure to English to acquire BICS (Brown, 2004) or what is also referred to as "peer-appropriate conversational fluency in English (Cummins, 1999, p. 2).

On the other hand CALP is described as "academic language proficiency" (Cummins, 2008, p. 71) where the aforementioned "cues are reduced" (Broom, 2004, p. 515), often making language that is not contextual, and predominantly academic, difficult for second language learners (Broom, 2004). Second language learners find it difficult to completely understand what they read, and also battle to express themselves in academic writing (Brown, 2004). Cummins explains that second language learners often need at least five to seven years of exposure to conversational language before being able to be proficient in CALP (Brown, 2004). Learners need to be proficient in CALP in order to succeed in cognitively demanding academic tasks such as essays and presentations (Brown, 2004). Students need to develop CALP in their primary language before being able to develop CALP in their second language (Bylund, 2011). Cummins (1999) describes three facets that need to be incorporated into learning and acquisition of CALP – cognitive, academic and language facets. 'Cognitive' refers to the idea that tasks should require higher order cognition and be cognitively challenging. These tasks need to be academic in nature too, and relate in some ways to subjects such as mathematics, science and art. Lastly, these tasks need to incorporate language, and give learners an opportunity to extend their language use. In summary, BICS are the skills one needs to relate to others on a communicative, social level, while CALP is the level of proficiency that students need in order to be successful in academic situations that require competent use of the English language (Cummins 2008).

Due to socio-political barriers, many learners receive a poor quality education throughout primary and high school. Often teachers who are teaching English are second language English speakers themselves, and therefore the learners have "poor role models for teaching and learning English" (Broom, 2004, p. 522). Similarly, many students and learners in South Africa come from home backgrounds that are not conducive to learning in any form, never mind the learning of, and success in, an additional language. This means that learners may leave primary and even high school without developing a strong command of the English language, and essentially, without reaching a sufficient level of CALP, which is necessary in order to successfully accomplish cognitively demanding academic tasks (Brown, 2004).

Being proficient in CALP in one's home language first also assists one to become proficient in CALP in their second language, as many features or rules in one language are evident in other languages (Bylund, 2011). CALP development "must become a central focus in schooling and in tertiary education" (de Kadt, 2000, p. 31) as it is necessary for learning in all other subject areas. Students not only require CALP in language subjects at school, but also in other subjects requiring higher-order understanding of content and terminology. Research has also found that a strong predictor of second language performance is the amount of exposure to and schooling in one's home language (Bylund, 2011).

Language proficiency can be defined in terms of three components. de Kadt (2000) identified intelligibility (the ability to comprehend and be comprehensible), use of appropriate language and use of English as a cognitive tool for learning as the three components that make up language proficiency (de Kadt, 2000). Writing, particularly academic writing is a cognitive task that in most tertiary education settings requires English as a cognitive tool.

Academic literacy courses have been introduced at various institutions in South Africa. Attending these courses is often compulsory for students in various faculties. Academic literacy courses were introduced for a few reasons. McGhie (2007) explains that "under-preparedness of students due to the poor South African public schooling system" (p. 35) is one of the main factors impacting on the decision to introduce an academic literacy course at tertiary level. It was also explained that students cannot read comprehensively, write grammatically or fluently, and cannot "argue and engage with texts in a meaningful and critical manner" (McGhie, 2007, p. 35). These factors were largely attributed to the fact that students at tertiary level had often studied English as a second language at high school, as opposed to a first language (McGhie, 2007). Mngomezulu (1997, in McGhie, 2007) acknowledges that the language barrier at tertiary institutions for EAL learners is the second most hindering factor for students, after study skills.

According to Heugh (1995), many parents of younger learners believe that learning English from as early as possible will be beneficial for their children academically and in the future. However, as Cummins (1999) established, learners need to be proficient in their home language or mother tongue before they will be able to learn another language. Similarly, learners should not be encouraged or forced to complete cognitively demanding tasks in their

second language if they have not achieved CALP in their primary or home language (Luckett, 1995). Learning a second language before acquiring CALP in one's first language could be detrimental to the development of both languages (Luckett, 1995).

Rote learning in many South African classrooms hinders students and learners from progressing and developing a language at a cognitive level (Zulu, 2005). Learners are not encouraged to develop their language, but are instead limited by what the teacher is teaching and saying (Zulu, 2005). Therefore, as students progress through the education system, and into tertiary education, they battle to use cognitively demanding language to learn and express themselves, hindering their performance and ability to study.

1.2.1 Academic Writing Ability

Hammill and Larsen (1985, in O'Toole, 2010) consider writing to be the "highest and most complex form of human communication" (p. 9). Furthermore, it is considered to be most complex because it is said to develop after one's ability to speak and read, and as a result of these abilities (Hammill & Larsen, 1985, in O'Toole, 2010). Bearing in mind that writing is a complex task, it is likely that one's ability to write may be linked to one's academic ability more so than one's ability to speak or read would be linked to academic ability.

According to Brumfit (1980, in O'Toole, 2010), students who are cognitively developed will be able to "display mastery of language concepts which are abstract" (p. 9), whereas students who are not cognitively developed or able will battle to express themselves, and may be "constrained by a linguistic dependence on a very basic grammatical level" (p. 9). One's understanding of information is also demonstrated through one's writing (O'Toole, 2010). It is through writing that the distinction between BICS and CALP is evident.

Most literature surrounding writing in South Africa revolves around writing centres, and ways to improve academic writing ability. This research is useful in that it identifies problems and difficulties that students may have around academic writing, and possible solutions. Other research describes the writing abilities or necessary abilities of researchers and academics, and how certain factors impact on their writing or 'write-up' ability of academic texts, in particular research and publications (Wang & Bakken, 2004). Many of these requirements or difficulties experienced can also be applied to less academic, 'amateur' writers of academic texts, such as first-year students writing essays. Wang and Bakken

(2004) also explain that many English Second Language (ESL), and EAL learners (learner's whose third, fourth or even fifth language is English) and researchers "lack adequate writing experience and basic understanding of academic writing" (p. 184).

Writing in some form, and in particular of academic essays for coursework and examination purposes is used in all aspects of tertiary education (Archer, 2008). It is one of the more important skills that students need to have or develop (Torrance, Thomas, & Robinson, 1999) and it is "central to academic success especially at university level" (Uysal, 2010, p. 314). Writing is a particularly important aspect of academic literacy in that it is the most commonly used form of assessment at university level, especially in first year where classes are large and subject matter is broad (van Dyk, Zybrands, Cillie, & Coetzee, 2009).

Academic literacy and vocabulary is the "kind of literacy needed for achievement on traditional school tasks and standardized [sic] assessments" (Baumann & Graves, 2010, p. 5). It has also been described as "a register of English that has distinctive lexical, morphological, syntactic, and stylistic features" (Scott, Nagy & Flinspach, 2008, in Baumann & Graves, 2010, p. 5). Many students who are not academically literate in English will struggle with academic tasks at school or tertiary education that require an apt understanding and command of the English language, not only communicatively, but cognitively.

It is important that students at tertiary level learn "domain-specific academic vocabulary" (Baumann & Graves, 2010, p. 6) as well as the specific writing style required by their designated course. Domain-specific academic vocabulary refers to the specific vocabulary and terminology required in certain courses at a tertiary level. It is necessary for students to know specific terminology for specific courses.

Many studies have found that one will be able to "transfer writing abilities and strategies, whether good or deficient, from their first language to their second language" (Friedlander, 1990, p. 109). This therefore implies that a learner, who can write sufficiently in their home language, should also be able to write sufficiently in English as their second language. This, however, is not always the case in South Africa. A traditional view of writing implies "that the combined burden of generating content and finding appropriate words in which to express it overwhelms our cognitive resources" (Torrance, Thomas, & Robinson, 1999, p. 190). This concept can be somewhat linked to the concepts of BICS and CALP – if a learner can achieve

CALP in their home language, they should be able to achieve it in their second or third language, after being exposed to the language for five to seven years (Brown, 2004). The reason for this transfer is that learners should be able to apply skills and techniques for writing learnt in their first language, to assist the writing technique in their second language (Friedlander, 1990). Other studies generated similar findings. Jones and Tetroe (1987, in Friedlander, 1990) found that transferring of skills to ones second language was not dependent on language proficiency, but dependent on whether the skills were acquired adequately in the first language. This is often not the case in some South African households, where there is little or no emphasis on writing or reading (Harley & Wedekind, 2004).

There are a number of EAL learners entering university each year. A study by Friedlander (1990) found that success in academic writing of ESL (and EAL) students "will be improved if ESL writers are able to use their first language at certain points while they are generating their texts" (p.123). In other words, they believe that learners might perform better if they are given the time and opportunity to process a task in their first language at certain stages during the writing process, instead of only planning, processing and writing in English. As mentioned, however, many high school teachers are often not qualified in the subjects they teach (Harley & Wedekind, 2004), and whether one's first language has been taught correctly is uncertain. Planning and processing in ones first language in cases like these may not be beneficial.

Conversely, topics at university level for essays or assignments are provided in English. Therefore, at a university level, "academic writing frequently involves the use of translation from languages in which one is not competent" (Elton, 2010, p. 153). In other words, students whose first language is not English may battle to understand what is required of them in certain tasks due to a lack of competence in the English language. This therefore makes academic writing in English difficult. These students may have to spend more time than necessary interpreting the topic, or translating it into their home language in order to understand and comprehend what is required of them.

According to Lavelle (2003), many universities provide writing workshops or courses in the first year of university, "with few opportunities to hone and refine skills as students progress through the university" (p. 87). As a result, as content gets more intense, and more advanced writing is required, little assistance is provided and students are not equipped with skills to

perform successfully. Similarly, attention needs to be paid to different forms of writing, and students need to be equipped with the different skills required for different forms, such as narrative and academic (Lavelle, 2003). Within a subject or faculty, writing skills should also be developed (Lavelle, 2003). In other words, while it is useful to know general writing skills, it is also necessary to know skills for writing that are specific to the subject for which the written task is required (Lavelle, 2003). Different faculties and subjects will adopt different planning techniques, writing styles, as well as referencing styles which learners and students need to be made aware of. Within these different faculties, students are rarely taught general writing skills and how to produce a "well-structured and well-written piece" (Elton, 2010, p. 151). Instead, students are often expected to write in a specific way for a specific faculty, and without being taught how to write generally, in terms of grammar, vocabulary use and syntax, are expected to produce well-written pieces of work (Elton, 2010). Different disciplines and faculties have been found to have a different concept of 'good writing' as a result of the different discipline requirements (Elton, 2010), and therefore students' writing may be acceptable in one discipline, but not another.

Cameron, Nairn and Higgins (2009) explain that there are numerous strategies that one can use to develop "technical know-how" (p. 276) of writing. This technical know-how includes "structuring an argument, sentence and paragraph construction, use of passive and active voice" (Cameron, Nairn, & Higgins, 2009, p. 276) which are crucial aspects of academic writing. Lloyd (2007) adds that "many students are unable to construct proper sentences and paragraphs" (p. 55), which as mentioned above, are vital parts of academic writing.

Wang and Bakken (2004) found that mistakes such as inappropriate format, "limited vocabularies and simple sentence patterns" (p. 184), lack of organisation and coherence and "use of flowery speech without conciseness" (p. 184) were common amongst EAL students and less common amongst EFL students. These are some of the differences found between the academic writing ability of EFL and EAL students. Green (2007) explains that factors such as age, educational experience, "cognitive style and attitude" (p. 80) are also "significant predictors" (p. 80) of one's writing ability. Writing is an integral part of academia, and can be assessed in a number of ways.

1.2.2 IELTS and WIAT-II

Many studies on language proficiency show that learners who score higher on predictive language tests are more likely to succeed academically (Dooey, 1999). With this in mind, it is important to look at various language tests that are potential predictors of language proficiency, and thus, academic success. For the purposes of this research, the IELTS and WIAT-II will be discussed.

The International English Language Testing System (IELTS) is a test that is commonly used for foreign language students who wish to gain access into English medium tertiary institutions, or for people wishing to immigrate into countries like Australia or New Zealand (Feast, 2002). There are two versions of the IELTS – academic and general. Both versions have the same four modules: writing, reading, speaking and listening (Feast, 2002). The academic version of the IELTS assesses suitability for entry to university for foreign language students, while the general version examines ones potential for success in the work environment and broader context, as well as for people hoping to enter certain countries (Feast, 2002). The IELTS writing component scores pieces of writing on bands between 0 and 9, with a core of 0 being given to those who did not attempt the test, and 9 being awarded to expert users. Most universities or institutions accept foreign language candidates with IELTS scores of 6.5 or 7 (Geranpayeh, 1994). Research regarding the reliability and validity of the IELTS is rare, and no published statistics were found.

Various studies in the United States and Australia have found that there is a weak correlation between IELTS score and academic performance (Cotton and Conrow, 1998, in Feast, 2002). One study found a regression coefficient of approximately .3, showing a weak relationship between the two variables (Feast, 2002). Dooey (1999) found that there was no strong correlation between the IELTS score and academic success, but that "there was some correlation in the case of individual modules" (p. 116). In other words, correlations were found between some of the modules (writing, reading, listening and speaking) with each other. Similarly, Kerstjens et al (2000, in Feast, 2002) found a "small to medium predictive effect of academic performance from the IELTS score" (p. 72).

A study in Australia revealed a moderately strong correlation between IELTS score and academic performance (Feast, 2002). In this case, a correlation coefficient of .54 was reported (Feast, 2002). Gibson and Rusek (1992, in Feast, 2002) suggest that the

contradictory results found in the studies could mean that "language skill is not one of the variables which predict academic success" (p.73) and that "skills other than language proficiency are needed to ensure academic success in these disciplines" (Dooey, 1999, p. 117). Feast (2002) also found in their study that there was a "significant and positive, but weak relationship" (p.83) between IELTS (language proficiency) and academic performance. The discrepancy between the IELTS scores make it necessary to use additional measures in order to determine the correlation, or lack thereof of academic writing ability and academic performance, as determined by first semester results.

Other studies have not found any evidence suggesting that students who score low band scores will perform poorly at a university level, and have, in some studies, found that students who achieved a high IELTS score often performed 'worse' at a university level (Feast, 2002). With this in mind, the current study aims to determine whether or not the IELTS is a reliable measure of academic performance. The IELTS is a widely used tertiary education selection instrument, and it is necessary to determine whether or not it is a fair instrument to use in South Africa universities.

The Wechsler Individual Achievement Test (WIAT-II) is an "individually administered achievement test" (Treloar, 1994, p. 292). The WIAT-II "contains nine subtests that combine to form four composite scores: reading, mathematics, written language, and oral language" (Watkins, Glutting, & Lei, 2007, p. 15). Within the written language component, there are five smaller sections – alphabet, word fluency, sentences, paragraphs and an essay component (O'Toole, 2010). The essay writing component is the component most closely linked to academic writing (in comparison to the other WIAT-II components) and measures four elements of writing – mechanics, organisation, theme development and vocabulary (O'Toole, 2010). These four subtests, collaboratively, add up to a maximum score of 41. Research shows that the WIAT-II has a .85 test-retest correlation and a .85 inter-scorer reliability on the written expression component (Lichtenberger & Smith, 2005). Huysamen (2006, in Roodt, 2009) recommends that "if measures are used to make decisions about individuals" (p. 52), a reliability coefficient of .85 or higher is optimal, whereas for decisions about groups, a reliability coefficient of .65 is acceptable.This therefore means that the written expression component is a reliable measure of one's writing ability, and that the scorers of the written expression are reliable.

O'Toole (2010) found that there was a significant correlation (r = .56) between the WIAT-II and academic performance. In this study, academic performance was measured by two essays, two tests and an examination (O'Toole, 2010). It was noted that a high score on the WIAT-II was directly proportional to a high score for a Psych1001 module (O'Toole, 2010). In particular, moderate correlations of r = .44, .43 and .54 were found between the Organisation, Theme Development and Vocabulary sections of the WIAT-II respectively and the Psych1001 mark. A low correlation of r = .32 was found between the theme development subtotal of the WIAT-II and an average score for the students' essay marks (O'Toole, 2010). This was result was surprising in that theme development was assumed to be an integral part of academic essay writing. A regression analysis in this study revealed that 31.76% of one's academic performance can be attributed to writing ability (O'Toole, 2010).

The IELTS is currently used as a selection instrument for tertiary education institutions in South Africa. In particular, the University of Pretoria, University of the Witwatersrand and Rhodes University make use of the IELTS for international students if they have not met the admission criteria for university entrance. It is therefore necessary to determine whether the IELTS is a reliable measure of academic performance, or perhaps whether the WIAT-II is a more accurate measure, and therefore a more reliable selection instrument. So far, no research is evident regarding the correlation between the IELTS and the WIAT-II with regard to academic performance. For the purposes of this research, correlational analyses will be run between the two tests in order to determine whether the scores achieved on one test correlate with the scores achieved on another, and whether one measure is a more reliable instrument for measuring academic performance.

It is important that cultural differences are taken into account when pieces of writing are scored by the IELTS (Uysal, 2010). First-year students in South Africa are varied in their cultural and socio-economic background. It is useful therefore to take these differences into consideration when scoring, so that scores are fair and contextual. It is also important to note that considering the IELTS is an international testing system, the scoring of writing according to "Western writing norms" (Uysal, 2010, p. 318) in certain contexts, such as South Africa may be inappropriate.

1.3 Aims and Rationale

Over the last 5 years, success rates of first year students have averaged around 70% (First-Time Entering undergraduate success rates of contact and distance mode students in public higher education institutions, by race and cesm, from 2005 to 2009, 2009). The reason why the other 30% are not succeeding needs to be investigated. Various reasons, such as academic under-preparedness, incongruities between a student's home language and the language of teaching/learning, adjustment to university (with regard to work load, lecture style and subject matter), learning the discourse of the specific courses and academic literacy are all possible predictors or causes of poor academic performance. Many researchers feel that academic literacy, and in particular academic writing is a major contributing factor to academic success. The reason for this is that academic writing is needed for all spheres of university, in all faculties and subjects. Most university assessments, especially in the Humanities and Language departments, revolve around essay writing in some form, and these marks determine a student's academic performance. It is therefore necessary to find out whether academic writing has an impact on academic performance. If this is the case, research findings will be used to make recommendations about intervention strategies to improve first year academic writing.

This research aims to collect samples of academic writing from first year Psychology students and determine three things. Firstly, it aims to determine if there is a correlation between an International English Language Testing System (IELTS) score and an adapted Wechsler Individual Achievement Test (WIAT-II) protocol score. To the researcher's knowledge, there is currently no literature or previous research on the relationship between the IELTS and the WIAT-II. It will be useful to determine whether these tests measure similar aspects, and can be used interchangeably when establishing the academic literacy and ability of students of all ages. Secondly, this research aims to see if writing ability, as scored by the IELTS and WIAT-II protocol correlates with academic performance of first year Psychology students as determined by their first semester results. Any relationships between academic performance and the specific aspects of writing such as vocabulary, syntax and organisation will also be explored. Whether the IELTS or the WIAT-II is a better predictor of academic performance will also be explored. Lastly, this study aims to see if there are differences in writing ability scores of English First Language (EFL) and English Additional

Language (EAL) learners. EAL students are those whose first language is not English. English might be their second, third, or even fourth language.

1.4 Research Questions

- Is there a correlation between the IELTS score and WIAT-II protocol score for a piece of academic writing?
- Are there differences between EFL and EAL learners' scores on tests of writing, and if so, what are these differences?
- Is there a correlation between academic writing ability and academic performance of first year students as determined by their first semester results?

1.5 Hypotheses

It is hypothesised that there will be a correlation between the IELTS and the WIAT-II as both tests involve writing.

It is also hypothesised that there will be a correlation between the WIAT-II and IELTS scores and Psych1001 results.

Lastly, it is hypothesised that there will be difference between EFL and EAL learners' scores on the IELTS and WIAT-II. It is predicted, that on average, EAL students will score lower on all measures than EFL students.

Chapter 2: Methodology

2.1 Research Design

A quantitative, non-experimental, correlational design was used. This design is appropriate because quantitative research produces "numeric and quantifiable data" (Belli, 2009, p. 60). Quantitative data can be produced in two ways – through experimental and nonexperimental methods. A nonexperimental method was used because "nonexperimental research involves variables that are not manipulated by the researcher and instead are studied as they exist" (Belli, 2009, p. 60). In the current research, no variables were manipulated, and the sample was studied without manipulation. Lastly, a correlational design was used in order to measure a range of variables (Punch, 2009).

2.2 Sample and Sampling

Data from a sample of first year students studying Psychology were used. The students were sampled using purposive non-probability sampling because distinctions between groups needed to be made and it provided a "maximum chance for any relationship to be observed" (Punch, 2009, p. 252). This was necessary for the current study, as the relationship between first year students' writing achievement and their academic performance needed to be observed in order to determine whether or not there was a correlation between the two variables, and whether or not academic writing was a predictor of academic performance. Purposive sampling ensured that the participants were not only available and willing to participate, but they were also "typical of the population" (Durrheim & Painter, 2006, p. 139). The sampling was purposive in that first year, Psychology students were the desired population, and were sought out in first year lectures – participants were typical of the population (Durrheim & Painter, 2006). The first year students used in this study are those students who finished Grade 12 in 2010. A final sample of 125 students was studied. Of the 125 students, 77 classified themselves as EFL and 48 classified themselves as EAL. Of these 125 students, 109 were female and 16 were male. 73.6% of the students were 18 years old at the time of the study. 65 (52%) of the students studied English and Afrikaans at high school. 10 (8%) studied English and isiZulu, and 25 (20%) of the students studied English, Afrikaans and another language at high school. For full descriptions of the sample, see Appendix VII.

Table 1

Details of the sample

Age		**EFL/EAL**		**Total**
		EFL	EAL	
17	Female	3	5	8
	Male	0	0	0
18	Female	53	26	79
	Male	12	1	13
19	Female	8	11	19
	Male	1	2	3
20	Female	0	3	3
	Male	0	0	0
		77	48	125

2.3 Measures

Quantitative data were collected using the International English Language Testing System (IELTS). There are two versions of the IELTS – academic and general. Both versions have the same four modules: writing, reading, speaking and listening (Feast, 2002). The academic version of the IELTS assesses suitability for entry to university for foreign language students, while the general version examines ones potential for success in the work environment and broader context, as well as for people hoping to enter certain countries such as Australia and New Zealand (Feast, 2002). The academic version of the IELTS was used. The second part of the writing module of the IELTS was administered to first year students. The test required students to "present an argument or discuss a problem" (Jakeman & McDowell, 1996, p. 6) in at least 250 words. They were given 40 minutes to complete the task (See Appendix IV).

The IELTS scripts were scored and assessed holistically, with consideration of "performance in the following areas: Arguments, Ideas and Evidence (AIE), Communicative Quality (CQ) and Vocabulary and Sentence Structure (VSS)" (Shaw, 2002, p. 16). The IELTS scores in bands ranging from 0 (those who did not take the test) to 9, which would be an "expert user" (Feast, 2002, p. 76). Generally, scores of 7 or 8 are "considered more than adequate" (Coffin & Hewings, 2005, p. 156). See Appendix V for a full description of band scores. For the purpose of this research, only the score for the writing component was used. The IELTS

written component was scored and moderated by an IELTS trained professional and the data were provided. Moderation is important to ensure score reliability (Uysal, 2010).

Demographic information of each student was gathered alongside the data from the IELTS (See Appendix III). The demographic questionnaire collected information regarding the students' age, gender, first language, second language, and other languages that are spoken. The students' high school's medium of instruction, as well as the languages that the students studied at high school were also established. Whether or not the students speak English at home was also questioned. Students were asked to state whether English was their first, second, third, fourth or fifth language.

The pieces of written work produced in the IELTS were also analysed using the WIAT-II scoring system, specifically for the essay component of the written expression section. A scoring protocol was used in a previous research study by O'Toole (2010) and a similar version will be used for this research. The WIAT-II scores writing in terms of four aspects and subtotals – mechanics, organisation, theme development and use of vocabulary. For the purpose of this research, the WIAT-II was adapted to include a score for essay length.

The Mechanics subtest of the WIAT-II measures errors made in terms of spelling, punctuation and grammar within the written piece. Students were required to write an essay of at least 250 words. The word length was taken into account when scoring errors made in the piece. The raw spelling and punctuation errors made are converted to a quartile score ranging from 0-4. A score of 4, for example, means the student did not make any spelling errors. A score of 3 was given if the student made between 1 and 4 spelling errors. Punctuation errors were scored in the same way. Lastly, a score of 1 was given if the students' essays contained no multiple spellings for the same word. Therefore the maximum score for this subtest is 9.

The Organisation subtest assessed sentence structure, whether or not students used complete or fragmented sentences, paragraphing, argument, use of linking phrases or words between paragraphs and sentences, sequencing of ideas, and adherence to essay conventions such as including an introductory and concluding sentence or paragraph. The maximum score for the original subtest was 17. However, for the purposes of this research, a score for whether or not

the essay was written as a letter was excluded, and therefore the maximum score for the subtest in this research is 15.

The Theme Development subtest was adapted from the original WIAT-II subtest. The original subtest awarded marks if students' essays contained three supports for the position and contained backup to the supporting argument. These two sections were adapted, as the topic required students to discuss both views to an argument, and therefore needed to provide support for two views. Students therefore were awarded marks if they discussed more than one view of the argument, provided back up evidence for both views, only wrote 'on-topic' and did not merely answer the question posed. The maximum score for this subtest is 8.

The Vocabulary subtest determined whether the student used a variety of words to discuss the topic, and whether any unusual or creative phrases and statements were made. Students were awarded marks if the words used were specific to the topic (as opposed to vague and general), if words were varied and expressive, and if there were any statements that were able to "capture the reader's interest" (WIAT-II Scoring Supplement, p.62). The maximum score for this subtest is 7.

Lastly, the WIAT-II scoring was adapted to include a one point score for the students who wrote an essay of longer than 250 words (as required). Therefore the total score for the WIAT-II protocol used for this research was 40.

The Psych1001 mark was comprised of two essay marks; two test marks and the June examination mark. Each essay contributed 20% of the Psych1001 mark, each test contributed 15%, and the June examination contributed 30%. The tests were short questions, and the June examination was in Multiple Choice Question (MCQ) format.

2.4 Procedure

Permission was asked of the Head of Humanities, Head of Psychology as well as of the First-Year Psychology Coordinator and lecturer. Similarly, Informed Consent was asked of the first-year students involved in the study. The students were made aware of the requirements involved in participation in the research, as well as the risks and the benefits. The students were reminded that they were permitted to withdraw at any stage, without repercussions. The

written piece produced by the first year students was collected during a 40 minute tutorial session.

The written piece produced by each student was also scored using a WIAT-II protocol. After the universities' June examinations, results from the students' course work throughout the semester, as well as from their actual examinations were accessed with permission.

2.5 Data Analysis

There were three phases to the data analysis. Firstly, the data – the written pieces produced by first year students – were analysed in two ways. Secondly, a correlational analysis was run between these two scores. Thirdly, a further correlational analysis was run between the two scores, as well as the academic performance of the first year students as stipulated by their first semester results.

Phase 1: The data gathered were scored using the IELTS scoring system. This system required a trained professional to score the data, and the information was provided to the researcher. The scores provided were on a scale between 1 and 9 for each student (see Appendix V). Secondly, the data gathered were scored by the researcher using the WIAT-II protocol. More detail on the scoring procedure is available in Chapter 4.

Phase 2: Correlational analyses were run between each of the subtest scores of the WIAT-II protocol (mechanics, vocabulary, theme development, and organisation) and the IELTS. Correlational analyses were also run between the overall scores of the WIAT-II protocol and the IELTS.

Phase 3: Correlational analyses were run between each subtest score of the WIAT-II and the academic performance as determined by the students' first semester results, as well as between the overall score of the WIAT-II and academic performance. The same correlational analysis was run between the IELTS score and the academic performance. Differences in the correlations between EFL and EAL students were also determined. A regression analysis was also run in order to determine whether the IELTS or WIAT-II is a better or more reliable predictor of academic performance.

2.6 Ethical Considerations

Permission was requested of the Head of the School of Psychology for access to the first year students during their lectures. Permission was also requested of the first year Psychology coordinator. As the students in the sample were over the age of 18, it was not necessary to ask the permission of their parents or guardians. The first year students in the sample were provided with informed consent forms regarding the research and were allowed to voluntarily participate in the study. They were also allowed to leave the study at any point during the study if they so wished. See Appendix II for the full informed consent form. Students were known by student number when linking their IELTS Writing Test to their first semester results and in this way anonymity was ensured.

Any information regarding the research will be kept in a locked filing cabinet once the researcher has finished the research. Access to the information will only be granted to the researcher and the researcher's supervisor.

Chapter 3: Results

The data collected from the first year university students were analysed using Correlational Analysis via SPSS. This was done in order to establish the relationships between various scores that the students obtained in the IELTS, WIAT-II and overall Psych1001 score. Frequencies of the IELTS and WIAT-II scores were also established. SPSS was also used to determine the mean and standard deviation of the students' scores on these measures. Lastly, various SPSS analyses were used to determine the relationship between EFL and EAL students and the scores they received on the measures. The results will be discussed in line with the hypotheses.

3.1 IELTS, WIAT-II and Psych1001 Descriptive Data

Table 2

IELTS Band Score Frequencies and Means

Band	EFL	EAL	Total
5.5	6	4	10
6.0	9	9	18
6.5	6	18	24
7.0	26	13	39
7.5	15	3	18
8.0	14	1	15
8.5	1	0	1
Total	77	48	125
Mean	7.026	6.552	
Standard Deviation	.7604	.5577	

Data gathered were scored using the IELTS scoring system. Table 2 shows the band score frequencies for the EFL and EAL students. 39 of the 125 students (31.2%) achieved a band score of 7 on the IELTS. This is the score often required for entry into tertiary institutions. Of these students, 26 were EFL and 13 were EAL students. 52 out of 125 students (41.6%) achieved a Band Score of lower than 7 on the IELTS. Of these 52 students, 21 were EFL students and 31 were EAL students. Table 2 also shows the mean and standard deviation of

the scores achieved by the EFL and EAL students on the IELTS. The mean for the EFL students' IELTS scores was slightly higher than the mean for the EAL students' IELTS scores. For analysis of significance between the EFL and EAL means, see Table 6.

Table 3

WIAT-II Score Frequencies and Means

Score Range	EFL	EAL	Total
17-19	7	5	12
20-23	21	18	39
24-28	30	20	50
29-32	17	5	22
33-35	2	0	2
Total	77	48	125
Mean	25.36	23.46	
Standard Deviation	4.148	3.274	

The data were scored using the WIAT-II scoring system. Table 3 shows the score range frequencies for the WIAT-II. 50 of the 125 students achieved a score of 24-28 out of 40 (60-70%). The table shows the mean and standard deviation of the scores obtained on the WIAT-II. The mean of the EFL students' WIAT-II scores was slightly higher than the mean of the EAL students. For analysis of significance between the EFL and EAL means, see Table 6.

Table 4 (Page 27) shows the mean and standard deviation of the scores obtained by the EFL and EAL students. The mean score for the EFL learners is slightly higher than the mean score for the EAL learners. For analysis of significance between the EFL and EAL means, see Table 6.

Table 4

Means and Standard Deviations for Psych1001 EFL and EAL Students

		Mean	Standard Deviation
Psych 1001	EFL	66.48	10.178
	EAL	58.75	11.449
June Exam	EFL	60.01	14.49
	EAL	48.32	14.68
Essay 1	EFL	70.84	11.54
	EAL	64.12	11.98
Essay 2	EFL	68.62	9.79
	EAL	61.42	13.91
Test 1	EFL	70.76	14.37
	EAL	62.82	17.27
Test 2	EFL	67.41	16.25
	EAL	62.92	20.02

3.2 WIAT-II, IELTS and Psych1001 Correlations and Reliability

A correlational analysis between the WIAT-II subtest scores, total score and the IELTS, as well as the Psych1001 mark for the two groups of students, EFL and EAL, was run. Pearson's "R" correlational analysis was used to establish the correlation coefficient, 'r'. The Organisation subtest of the WIAT-II has a very strong positive correlation (r = .924) with the overall total of the WIAT-II, at a 1% significance level. The IELTS and the total WIAT-II have a high correlation (r = .725).

There is a low correlation and a weak relationship between the subtest scores of the WIAT-II and academic performance (as measured by the Psych1001 mark). Similarly, the correlations between the WIAT-II and the IELTS with the Psych1001 marks are weak (r = .332 and r = .290 respectively). Therefore there is a small positive relationship between them.

There are weak correlations between the students' scores on the WIAT-II subtests and total, IELTS, Psych1001 marks and whether or not they are EFL or EAL students. Therefore there is no significant relationship between the language of the students and the scores they achieved on the various measures. (For a full Correlation Matrix, See Appendix VII).

A correlational analysis between the Psych1001 contributing marks, the WIAT-II total and the IELTS was run. There are weak correlations between the various assignments and tests making up the Psych1001 marks with the WIAT-II and IELTS scores. The IELTS has no significant correlation (r = .179) with Test 2 of the Psych1001 mark. The IELTS has low correlations with the remaining components (Test 1, Essay 1, Essay 2, and June examination). The WIAT-II has low correlations (r = between .262 and .282) with all of the Psych1001 components. (For a full Correlation Matrix, see Appendix VII).

Table 5

WIAT –II and Psych1001 Scale Reliability

	Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
WIAT-II	.576	.616	5
Psych1001	.822	.824	5

Table 5 shows the Scale Reliability scores for the WIAT-II and the Psych1001 scale. For the WIAT-II, a Cronbach's Alpha reliability coefficient of .576 was generated. This score is below .7, which is an adequate score for research instruments (Finchilescu, 2002). Therefore the WIAT-II cannot be deemed a reliable measure for this sample.

Correlational analyses were run between contributing modules of Psych1001 – namely the June examination, Essay 1, Essay 2, Test 1 and Test 2. A Cronbach's Alpha reliability coefficient of .822 was generated, which is above .7, meaning that the Psych1001 scale is reliable with the sample (Finchilescu, 2002).

3.3 Regression Analyses

A regression analysis was run in order to determine if the IELTS and WIAT-II are accurate predictors of academic performance. The coefficient of determination that was retrieved was .115. This means that only 11.5% of the variance in the Psych1001 mark can be accounted for and explained by the scores on the WIAT-II and the IELTS. In other words, only 11.5% of the variance in the Psych1001 marks can be attributed to the students' writing ability.

The results revealed that the WIAT-II is a stronger predictor of academic performance. The Beta value for the WIAT-II (.257) was slightly higher than the Beta value for the IELTS (.103), meaning that it makes more of a contribution to the equation. The contribution that the WIAT-II makes towards the Psych1001 mark is significant in that .039 < .05, therefore making it a better predictor of academic performance. The IELTS does not make a significant contribution towards the Psych1001 mark in that .405 > .05. For full regression tables, see Appendix VII.

3.4 EFL and EAL Mean Differences

Table 6

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	Sig. (2-tailed)
WIAT	Equal variances assumed	4.992	.027	2.699	.008
Total	Equal variances not assumed			2.850	.005
IELTS	Equal variances assumed	3.616	.060	3.734	.000
	Equal variances not assumed			4.006	.000
Psyc	Equal variances assumed	.358	.551	3.935	.000
1001	Equal variances not assumed			3.829	.000

An independent-samples t-test was conducted to compare the WIAT-II, IELTS and Psych1001 marks for EFL and EAL students. There was a significant difference in scores for EFL and EAL students on the WIAT-II, IELTS and Psych1001. The magnitude of the differences in the means on the WIAT-II was medium (Cohen's d = 0.53). The magnitude of the differences in the means on the IELTS and Psych1001 were larger than the WIAT-II (Cohen's d = 0.67 and 0.71 respectively).

The organisation subtest of the WIAT-II was the only subtest that yielded a significant difference between the means of the EFL and EAL groups. A Cohen's d of 0.65 reveals that this is a medium difference. For full independent samples tables, see Appendix VII.

All modules of the Psych1001 except Test 2 were found to have significant differences between the EFL and EAL means. The differences in means on Test 1, Essay 1 and Essay 2 were all medium in effect (Cohen's d = .5, .56 and .61 respectively). The differences in mean scores of the EFL and EAL students on the examination was large (Cohen's d = .79). For full independent samples tables, see Appendix VII.

No correlations between first language, medium of instruction at school, and languages studied at school and any of the scored components of the IELTS, WIAT-II and Psych1001 were found. For full correlation tables, please see Appendix VII.

Chapter 4: Discussion

4.1 Discussion of Results

The research conducted was quantitative in nature, where a sample of 125 first-year Psychology students at the University of the Witwatersrand participated in the study. The students were required to write an essay on a provided topic, and fill in a demographic questionnaire. The students were allocated 40 minutes in which to complete the essay. The data (essays) were analysed using the IELTS and the WIAT-II scoring system. The IELTS system prescribed a band score between 0 and 9 to each student, while the WIAT-II assigned a mark out of 40 to each student. The WIAT-II scores were comprised of four subtests – namely Organisation, Theme Development, Mechanics and Vocabulary. Thereafter, Psych1001 marks were accessed, and were used alongside the IELTS and WIAT-II scores, as well as the demographic data to determine three things which will be further discussed.

This study aimed to answer a variety of questions. Firstly, it aimed to see if there is a correlation between the IELTS score and WIAT-II score for a piece of academic writing produced by first year Psychology students. Secondly, the study aimed to see if there is a correlation between academic writing ability (as scored by the IELTS and WIAT-II) and academic performance (as determined by the students' first semester Psychology results). Lastly, the study aimed to establish if there are any differences between EFL and EAL students' scores on these measures.

For the first aim, it was hypothesised that there would be a positive correlation between the IELTS and the WIAT-II. This hypothesis was made because both the IELTS and WIAT-II include tests of writing ability. For the second aim, it was hypothesised that there would be a correlation between academic writing ability and academic performance. This was hypothesised because a strong emphasis is made on writing at a tertiary level, and most assessment revolves around writing in some form. Lastly, it was hypothesised that there would be differences between the scores of the EFL and EAL students on these measures. Much literature has been found regarding differences that these learners experience at all levels of education.

The first hypothesis which stated that there would be a correlation between the IELTS and the WIAT-II was investigated by running a correlational analysis. There is currently no published research on the relationship between the IELTS and WIAT-II. Therefore it is difficult to determine whether the results in the current study are consistent with other research.

The results revealed that there is a high positive correlation of .725 between the IELTS and the WIAT-II. This therefore means that high performance on one measure is strongly indicative of high performance on the other measure. As both subtests are supposed to measure writing ability, it is possible that a correlation coefficient of this magnitude means that the two measures test similar aspects of writing. There is a moderate correlation of .686 between the Organisation subtest of the WIAT-II and the IELTS. The Theme Development and Vocabulary subtests of the WIAT-II have a considerable relationship with the IELTS, with correlation coefficients of .465 and .468 respectively. A weak relationship ($r = .270$) between the Mechanics subtest of the WIAT-II and the IELTS was found. A high positive correlation between the IELTS and the total WIAT-II score also suggests that the tests could possibly be used interchangeably to determine one's writing ability. From the results it appears that IELTS scores are not affected by aspects such as theme development, vocabulary and the mechanics of the writing, as there were no correlations between the IELTS and these aspects in the WIAT-II. This could be attributed to the fact that the IELTS entails a more holistic scoring system, and these aspects are not analysed individually. According to the results, the IELTS seems to place more focus and attention on the organisation of writing.

It has been noted that deviations such as scorer subjectivity or inconsistency, in the scoring of the WIAT-II may result in reduced reliability of the measure (Lichtenberger & Smith, 2005). In the case of this research, deviations in terms of how the test was administered, and the subjective and adapted scoring may have impacted on the test's reliability. Caution was taken to follow the scoring guidelines as accurately as possible. Research has shown that reliability coefficients of .7 or higher are adequate and appropriate for research instruments such as the WIAT-II (Finchilescu, 2002). A low Cronbach's Alpha of .576 in this study could be attributed to the aforementioned factors (scorer subjectivity or inconsistency), rending the measure unreliable for the sample.

The second hypothesis which stated that there would be a correlation between academic writing and academic performance was investigated by running correlational analyses between the WIAT-II and IELTS scores (including subtest scores) and the Psych1001 mark.

According to the results, the Psych1001 scale, comprising of two tests, two essays and an examination (Test 1, Test 2, Essay 1, Essay 2 and the June examination) is a reliable measure for the sample. A Cronbach's Alpha of .822 was established for the scale, indicating that the five components are reliable in what they aim to measure – academic performance. The reliability of the scale would decrease if any of the items were excluded, showing that each component is a useful contributor to the Psych1001 mark. This high reliability coefficient also implies that the results achieved by the students for each component are accurate reflections of the students' academic ability, and accurate reflections of their knowledge on the content being assessed.

A correlation coefficient of .290 was established between the IELTS band score and the Psych1001 mark. A coefficient of this size indicates a weak relationship between the two variables. This therefore means that scores on the IELTS test are not necessarily appropriate indicators of academic performance, and exclusion of students who do not achieve a certain band score on the IELTS could be unwarranted or unfair. These findings are consistent with other research, where no correlations were found between the IELTS and academic performance (Feast, 2002). In some studies, the converse has been found, where students who achieved low band scores actually achieved higher academically than students who achieved higher band scores, and vice versa (Feast, 2002). It was not possible to determine the reliability of the IELTS, as the scores for the IELTS were assigned holistically, and were not made up of a scale with multiple items. This would have been useful in order to see whether the IELTS is a reliable measure of writing ability. However, a regression analysis revealed that the IELTS is not a strong predictor of academic performance (Beta value = .103). The contribution that the IELTS makes towards academic performance is not significant (Sig = .405 which is > .05). This could therefore be attributed to the possibility that the IELTS is not a reliable measure of writing ability, or that writing ability is not an accurate predictor or cause of academic success.

Of the sample, 27% of the EFL students and 65% of the EAL students achieved an IELTS Band Score of less than 7. According to research, scores of 7 are generally required for entry

to tertiary education institutions (Geranpayeh, 1994). Therefore, according to this guideline, 41.6% of the sample would be excluded from tertiary education. While academic writing is said to be "the determining factor for progress in the lives of every student in the learning process" (McGhie, 2007, p. 39), it would appear from the results that this is not always the case. It was hypothesised that one's writing ability would impact on one's academic performance, and that plans could be made to improve the writing ability of students in order to assist them academically. However, of the 52 students who achieved a band score of less than 7 on the IELTS, only 8 students scored less than 50% for Psych1001, and 31 of the 52 achieved a Psych1001 mark of more than 60%. In other words, students who may not have been granted access into a tertiary institution due to their low IELTS score are, on the whole, currently performing well in first year at university. This hypothesis is confirmed by the fact that writing ability, as measured by the IELTS, was proven to make an insignificant contribution to academic performance as measured by the Psych1001 mark, and should therefore not be used as an entrance requirement.

Both the IELTS and the WIAT-II score students according to grammar and spelling (among other things). With regard to the Psych1001 June examination, multiple choice type questions were asked, and therefore spelling and grammar, as well as other aspects tested by the IELTS and WIAT-II are not considered, and do not play a role. Low correlations between these subtests and the Psych1001 mark are indicative of this. It is probable that these factors are actually ignored when scoring and marking academic papers in tertiary institutions, such as the Psych1001 essays (Essay 1 and Essay 2) and the tests (Test 1 and Test 2) which were in short question format. While students need to be able to express themselves sensibly, more focus seems to be on the content of the paper, and the information and knowledge that is demonstrated. This is evident in that there were no correlations between any of the contributors of the Psych1001 mark, and the WIAT-II or IELTS. In other words, even though emphasis is placed on writing, and the fact that some students are not as proficient in English as they should be at a tertiary level, many students are still able to learn content and subject matter of a particular discipline. In particular, there was no correlation between the Test 1 and Test 2 scores and the mechanics subtest of the WIAT-II. Correlations between the WIAT-II and Test 1 and Test 2 were low, as were the correlations between the WIAT-II and Essay 1 and Essay 2. This is further evidence that writing ability, as indicated by the WIAT-II, is not a major component or factor considered when scoring pieces of academic writing.

In the Mechanics subtest of the WIAT-II, a common error made by students was inconsistent spelling of words. For example, students spelt '*responsibility*' correctly, and also as '*responsability*' in the same essay. Other spelling errors such as '*intelectual*,' '*merital'* and '*persue'* were often made. Incorrect homonym use such as using '*their*' instead of '*there*' and vice versa was a common mistake. Students also made punctuation errors, using commas and apostrophes incorrectly, as well as incorrect capitalisation of some words. Only one student in the sample was able to successfully write their essay with no spelling or punctuation errors. Of the sample, 18 students (14.4%) made one punctuation or spelling error. Of this group, 5 students were EAL students. However, there were no statistically significant differences between the mean scores of the EFL and EAL students in this subtest. Therefore, spelling and punctuation errors occur across language, and are not a specific difficulty of one group.

In the Organisation subtest, fragmented, run-on and incomplete sentences were common errors made by students. Of the sample, only 27 (21.6 %) did not make these sorts of errors. Similarly, many students struggled to sequence their sentences and paragraphs in an appropriate and understandable way, resulting in an essay that was incomprehensible and disorganised. Most of the sample, however, included at least an introductory and concluding sentence. There were medium (Cohen's $d = 0.63$) statistically significant differences between the mean scores of the EFL and EAL students in this subtest. EAL students' scores were, on average, significantly lower than EFL students' scores. This therefore means that EAL students are more likely to make errors regarding sentence sequencing, paragraph use, fragments, topic sentences, sophistication of writing and ability to follow instruction than EFL students.

Students were awarded marks in the Theme Development subtest if they were able to present both sides of the argument, and provide evidence for their points. Approximately 70% of the sample failed to present both views in the essay, and tended to focus their argument on one view, which was often presented in the introduction to the essay as the topic of the essay. In the Vocabulary subtest, students who used vague and general language repetitively were awarded fewer marks than those who used a variety of descriptive words and phrases. Students were awarded marks if they made use of unusual, captivating expressions. Subjectivity in this subtest was a potential point of error, in that a captivating expression may be received differently by two different scorers. There were no significant differences between the mean scores of the EFL and EAL students on these subtests.

There were no significant correlations between the subtests of the WIAT-II and any of the contributing tests and assignments to the Psych1001 mark (See Appendix VII). It was originally assumed that the Organisation or Theme Development subtest would have some correlation with the written pieces included in the Psych1001 mark, because these aspects are required in most forms of academic writing, but this was not the case. The Organisation subtest had correlations of .236 for the first essay, and .257 for the second essay. This subtest covered organisation of the written piece, and awards marks for correct format, use of linking phrases, ability to argue a point, and the ability to integrate information concisely. It is interesting therefore that there is a weak correlation between this subtest and the two Psych1001 essays (See Appendix VII). These aspects of the subtest are vital and standard parts of all academic writing, but are seemingly not considered to be criteria for academic essays at a first year university level. It is hypothesised, therefore, that academic essays at a university level are content focused, and are not marked according to the students' ability to organise content according to the WIAT-II criterion. The Theme Development Subtest had a correlation of r = .256 for the first essay, and r = .146 for the second essay. Again, the possibility that these aspects are not criteria for academic essays at a university level is considered. It is also possible that while academic essays at university level need to be 'readable,' errors in aspects such as spelling and grammar may be noted, but are not penalised to an extent that significant changes in academic success are noted. Consistent with these findings and assumptions, Gibson and Rusek (1992, in Feast 2002) concluded that it is possible that "language skill is not one of the variables which predict academic success" (p. 73).

A regression analysis revealed that the WIAT-II is a better and more reliable predictor of academic performance than the IELTS (Beta value = .257). The WIAT-II makes a significant contribution towards the academic performance result (Sig = .039 which is < .05).
The regression analysis also revealed that only 11.5% of one's academic performance can be attributed to academic writing ability. Therefore, the other 88.5% of one's academic performance must be attributed to other factors. These results are inconsistent with the findings of O'Toole (2010), who found that academic writing ability contributed to 31.76% of academic performance. These inconsistent results could be due to sample size (a larger sample may have been beneficial), scorer reliability or scorer bias and subjectivity. The lower contribution in this study could also be attributed to the addition of the IELTS as a measure

of academic writing. Using two measures such as the WIAT-II and IELTS may have assisted in establishing a more accurate result. However, these factors do need to be explored further.

There are no significant correlations between any of the subtest scores and the language of the students. There are also no correlations between the subtest scores and the students' Psych1001 marks. It is therefore assumed that students with different mother tongues do not make specific errors in specific areas of writing. These errors are therefore made across language, although errors in organisation are more prominent amongst EAL students.

The third hypothesis which stated that there would be differences between the EFL and EAL students was investigated using correlational analyses, as well as t-tests. The sample consisted of 77 EFL students and 48 EAL students. This was determined by the demographic questionnaire, where students specified whether English was their first, second, third or even fourth language. Those who selected English as their first language were categorised as EFL, and those who selected English as any other language were categorised as EAL.

On the IELTS, EFL students scored, on average, a band score of 7.026, while EAL students scored, on average, a band score of 6.552. This therefore means that on average, EAL students would not be granted access into tertiary education, as their IELTS score is less than 7. This difference in the EFL and EAL means is of a medium significance, and therefore implies that EAL students are, on average, weaker in terms of writing ability. On the WIAT-II EFL students achieved an average score of 25.36 out of 40, while EAL students achieved a mean score of 23.46 out of 40. There were many outlying scores in all of the categories, but the difference in the EFL and EAL means is of medium significance (Cohen's d = .51). As with the IELTS, this significant difference (Cohen's d = .71) suggests that EAL students are poorer than EFL students with regards to writing ability. Lastly, the Psych1001 marks showed that EFL students achieved a mean score of 66.48%, while EAL students achieved a mean score of 58.75%. The difference in the EFL and EAL means is also of medium significance (Cohen's d = .71). The Psych1001 marks, are not influenced much by academic writing, and seem to be more content focussed. This therefore means that EAL students are generally weaker academically in terms of course content. There are therefore significant differences between the EFL and EAL students on all measures, with the EAL students scoring significantly lower than EFL students.

Wang and Bakken (2004) described some differences in the writing ability of EFL and EAL students. They found that many EAL learners and researchers "lack adequate writing experience and basic understanding of academic writing" (Wang & Bakken, 2004, p. 184). Use of inappropriate format, simple sentences, general vocabulary and lack of organisation were all identified as difficulties some EAL students may experience. Some of these differences were evident in the WIAT-II subtest mean scores. While there were no significant differences between the EFL and EAL mean scores for the Mechanics, Theme Development and Vocabulary subtests, there is a significant difference between the EFL and EAL mean scores for the Organisation subtest. The mean score for EFL learners in the Organisation subtest of the WIAT-II was 10.12, and was 8.75 for EAL learners. This difference was of medium significance (Cohen's d = .63). It is therefore necessary to look at the organisation subtest in more detail in order to determine which aspects are of significance in creating the differing mean scores. The organisation subtest measures sentence structure, paragraphing, use of linking words or phrases, sequencing of ideas and adherence to essay conventions such as use of an introductory and concluding sentence or paragraph. The findings that EAL students scored lower in this domain are consistent with Wang and Bakken's (2004) findings whereby EAL students presented with a lack of organisation and coherence in their writing.

There were medium significant differences between the means of the EFL and EAL students on the Test 1 (Cohen's d = .5), Essay 1 (Cohen's d= .56) and Essay 2 (Cohen's d = .61) components of the Psych1001 mark. On average, EFL students performed better than EAL students. There was a largely significant difference between the means of the EFL and EAL students on the June examination. Again, the EFL students performed significantly higher than the EAL students. The June examination was Multiple Choice Question (MCQ) format, which means that it would have been only content focused, and writing ability would not be a factor. Therefore the June examination indicates that EFL students perform significantly higher than EAL students in terms of content learnt, in this case, Psychology.

It was originally assumed that EAL students may have difficulties with certain aspects of writing such as spelling and grammar. However, the results have shown that there is almost no correlation between the scores on the mechanics subtest and the first language of the students in the sample. A correlation coefficient of -.099 was found between Mechanics and First Language, and a coefficient of -.113 was found between Mechanics and whether the

students were EFL or EAL students. Similarly, no significant differences in the mean scores of the EFL and EAL students were found on the Mechanics subtest.

Students who have had exposure to English either as a high school subject or as a medium of instruction are likely to have some sort of fluency in English when entering a tertiary education institution (McGhie, 2007). Research has also shown that students who study English as a second language at school will have more difficulties with academic proficiency than students who study English as a first language. In the sample studied, 124 of the 125 students attended a high school where the medium of instruction was either solely English, or dual-medium with English as one of the languages of instruction. No correlations between the language of instruction at high school and scores achieved on the IELTS, WIAT-II and Psych1001, including their components were found. Similarly, 122 of the 125 students studied English in some capacity at high school level. There were also no significant correlations between the languages studied at high school and scores achieved on the measures. There were numerous negative, low correlations between components of the Psych1001 module and the WIAT-II and the first language of the students.

Students were not given the opportunity to indicate whether they studied English as a first or additional language at high school. This would have been a beneficial element in determining whether there are correlations between the languages studied at school, not just languages spoken as determined by the selection of EFL or EAL as a home language. Cummins (1999) distinguishes between BICS and CALP in terms of cognitive language proficiency and ability. It is possible that students who are EAL speakers at home, and who studied EAL at high school, have not achieved CALP, in the same way that many mother tongue English speakers often do not achieve cognitive proficiency in languages such as isiZulu or Afrikaans.

According to McGhie (2007), if EAL learners have difficulty acquiring proficiency in English, they "may not be successful in the learning process" (p. 37), and may be referred to as "dumb or lazy or weak" (p. 37). However, many of the students in the sample were not proficient in English, did not speak English as a first language, and did not achieve acceptable scores on the IELTS writing test for university entrance or the WIAT-II, yet the majority of students are still successful in academic areas of university. In other words, McGhie's (2007) statement regarding English proficiency and success is not valid in this

sample. This is probably also due to the fact that students who are not proficient in communicative English may not appear to be clever, and may appear "dumb or lazy or weak" (McGhie, 2007, p. 37) but are competent in the discourse in which they are studying.

Inclusive education demands that teachers (and lecturers) make allowances for learners and students who have barriers to learning. EAL students at tertiary level are in some ways hindered by a language barrier, even though this barrier would have hindered the students throughout their scholastic careers. McGhie (2007) recommends that staff and lecturers make provisions for these students – they need to be catered for. These students need to be encouraged to make use of academic literacy courses and workshops that will assist them to increase their knowledge of the English language, and have less difficulty writing academically (McGhie, 2007). It may also be useful to implement specific workshops within different faculties or schools, so that the discourse of the subject can also be learnt and developed. With the results in mind, it must be noted that these workshops will most likely, merely assist learners to improve their writing ability, and may not alter or affect students' academic success, as this is only somewhat affected by writing ability.

Makoni (2010) attributed students' lack of success at university level to academic under preparedness. It was thought that this academic under preparedness was a result of the inequalities that arose out of the apartheid era. Currently, many teachers in South Africa (at all levels) are unqualified to teach the subjects they teach or to teach at all (Bloch, 2009). These teachers, if qualified, often have to teach their subject to learners who are not fluent in the language of instruction (English) and the subject matter itself. Even though the medium of instruction at the high school is English, EAL students often struggle as they have not gained cognitive academic literacy, or CALP. It is likely that many of the EAL students in the sample come from backgrounds of socio-economic deprivation. Due to the aforementioned inequalities of the past, the parents of these students were not given an adequate chance to have access to an education. These students, therefore, often do not have the support and guidance to assist them to succeed academically, and in particular, in tertiary institutions.

The students included in the sample had to meet certain criterion before entering the University of the Witwatersrand. For admission, each student would have obtained at least 50% in EFL or ESL for their matriculation examinations. Furthermore, each student would have obtained at least 34 admission points. These admission points are awarded depending on

the NSC percentage obtained by students for each of their subjects. For example, 8 points are assigned for 90-100%; 7 points are assigned for 80-89% and so forth. Students who obtain 34 admission points would need to obtain approximately 5 points (60-69%) for each of their subjects. It is therefore assumed that the students who are able to achieve 34 points are competent academically.

Bearing in mind the Psych1001 marks and the low failure rates in comparison to the statistics, it is necessary to define what is meant by academic success, or academic failure. Some scales consider a pass mark of 50% to be successful, while others consider 40% on a subject to be a pass. In terms of the Psych1001 marks, students who achieved above 50% were 'passed.' The Psych1001 mark comprised of two short questions tests worth 15% each, two essays worth 20% each, and an MCQ June examination worth 30%. Of the sample, only 14 out of 125 (11.2%) achieved below 50% for their Psych1001 mark, meaning that the sample achieved an 88.8% pass rate for Psych1001.

While this research set out to understand how student performance is related to their English writing abilities at a first year level, it is necessary to look at the first semester results of the students in the sample to determine whether the current first-year students are performing poorly. Statistics from 2009 show that approximately 73.3% of Humanities students successfully pass first year at university. In other words, approximately 26.7% of students fail first year. Psychology is a most popular subject in the Humanities faculty, and therefore it is assumed that these Humanities statistics could be applied broadly to Psychology. In this study, 11.2% of the Psychology students sampled failed the first semester of first-year. This statistic is significantly lower than the 26.7% statistic reported, and could be due to the specificity of the sample in terms of subject. A broader and more varied sample from within the Humanities would be necessary in order to compare these results accurately.

Academic writing ability only accounts for 11.5% of one's academic performance. Language seems to be a "nuisance factor that impacts on the test performance of English second language speakers" (Foxcroft & Aston, 2006, p. 98) and does not seem to be the predicting factor, or the influencing factor in one's academic performance. It is, however, a nuisance factor that still has some influence and needs to be taken into account. It is necessary, therefore, to determine and discuss other factors that contribute towards one's academic

performance so that tertiary institutions can plan appropriate interventions and encourage student development in fields of difficulty.

Cotton and Conrow (1998) found that poor performance at a university level can be attributed to numerous factors, other than language, and that there are many "moderating variables which affect student performance" (p. 75). Their research found that "personality and affective factors such as attitude, motivation and friendships" (Cotton & Conrow, 1998, p. 75) can play a role in students' performance. It is likely that students' attitudes are often influenced by their friends or peers, which also impacts on motivation and performance. Furthermore, financial difficulties, familial pressures and involvement of the staff have been found to play a part (Cotton & Conrow, 1998). As this study was not conducted in South Africa, it is useful to consider some of the other factors that could contribute towards the academic performance of South African students, or international students studying in South Africa.

South Africa's history of inequality has lead to difficulties in the education system as a whole. Students' under preparedness prior to tertiary education as well as these inequalities have contributed towards students' poor performance at university. Similarly, socio-economic factors such as poverty, disease and violence, which many students face on a daily basis, could impact on one's academic ability to learn, or cause disruptions in one's schooling (Fraser & Killen, 2003). Some students may have learning disorders such as dyslexia, or a reading disorder, which may contribute towards their ability to write well. Many students find the adjustment to university difficult, and they battle to learn academic discourses, cope with the work load required of them, and may struggle to adapt in general (Fraser & Killen, 2003). The 'student life' is also a factor that contributes towards academic performance. Many students perform adequately or well in high school, but struggle to keep a balance between this 'student life' and studying once restrictions of the school system, and possibly their parents, have been removed.

Conversely, factors such as preparedness prior to tertiary level, quality of education, buffering socio-economic situations and factors, no or few barriers to learning such as language differences or learning disorders, ability to cope with the discourses required and the work load, will contribute towards academic proficiency. All of the aforementioned promoting and hindering factors may account for individual differences in attitude and

motivation, which may have impacted on the results. Much research revolves around the influence that writing has on academic ability. This research is predominantly European and American in context and little has been researched in South Africa. In a South African context, it is possible that writing may have the same influence, if the extraneous and hindering socio-economic and other factors were removed. However, this is the reality in South Africa, and therefore those are the aspects that need to be addressed first and foremost.

It must be noted, however, that the focus of the study was academic writing, and the aforementioned factors were not considered in the study. Without even considering these differences or factors, one can only hypothesise about the effect that they might have on academic performance. Even though it was found that academic writing has a small contribution towards academic performance, the significant difference between the EFL and EAL groups on all measures is of importance. The EAL students scored significantly lower on the two writing tests, as well as in the Psych1001 course. These lower scores can be attributed to the factors discussed previously such as previous inequalities, the quality of previous education, or whether or not the student achieved CALP. This is especially possible for foreign language students (those that speak a language other than one of South Africa's official languages) who have not been exposed to English in any form. With this in mind, it is possible to plan specific interventions that address some of the difficulties that EAL students are facing at tertiary education. Targeting specific difficulties such as dyslexia, poor use of grammar or sentence construction, or aspects that EAL students struggle with would be beneficial for their progression and future success at university. It is not only important for interventions targeting EAL students, but for some EFL students too. The results found were average scores, and some outliers in scores did exist, making it possible for some EFL students to score lower than some EAL students. Therefore interventions need to address the difficulties that EAL students seemed to present with, in order to benefit EAL and some EFL students experiencing similar difficulties.

4.2 Strengths

The sample size was an acceptable and appropriate size for a quantitative study. This large size of 125 students would have impacted positively on the reliability and validity of the results. A sample of this size would enable some transference of results and hypotheses on to similar samples.

The data were able to be administered en mass, and did not require individual and one-on-one collection of data. This made the data collection process easier and quicker, as all the data were collected in one 40 minute session.

A workshop on how to score the IELTS scripts was given before the scoring commenced. A professional trained in scoring the IELTS provided the workshop to the researcher, as well as others who are currently working with the test. Thereafter the marks were moderated by another scorer. This moderation would have increased the reliability of the IELTS scores assigned to the students.

The measures used, namely the IELTS and WIAT-II, were reliable, (according to Reliability Analyses), and appropriate measures to assess academic writing. Similarly, the Psych1001 marks were an accurate reflection of academic ability, as all the components had reliability coefficients above .638 ($p<0.05$) and performance, and were thus a reliable measure for the sample and study.

4.3 Limitations

The sample in the study was comprised of Psychology students, and only their results in Psychology were used in the study. It would be useful to access these students' results in other subjects, as well as students from other subjects so that any differences between faculties could be noted. Similarly, a sample consisting of more students from other areas in the Humanities faculty would have made an accurate comparison with previous statistics possible.

While the data collection process was quick, the data capturing and analysis processes were time consuming. Each student's paper took approximately 10 minutes to mark according to the IELTS and the WIAT-II. Even though the sample was large, the researcher feels that a larger sample could have been drawn if there were no time limitations, or if the researcher had a research assistant to help with marking. However, if this were the case, scripts would still need to be moderated, and therefore more time would still be taken. Moderation of the WIAT-II scoring may have increased the reliability of the scores that were produced.

It was not possible to gain access to the students' matriculation results from 2010. However, to gain admission to university, the students would have needed to meet certain requirements. Students needed 34 admission points, as well as 60% for English as a home language or additional language in high school. More in depth results may have enabled the researcher to establish whether or not the students' performance in the writing assessments, and Psych1001 marks was consistent with their 'usual' or previous performance.

It would have been useful to use the entire WIAT-II or IELTS, to establish whether academic performance can be more accurately predicted by another subtest such as speaking, reading or listening. This is hypothesised because in various research, emphasis is still placed on academic literacy as a strong predictor of academic performance. Therefore it may be other aspects, other than writing, that are predictors. However, this would have been time consuming, and may have resulted in a smaller sample, reducing the reliability of the study.

4.4 Implications

Dooey (1999) explains that it is really important for institutions to establish their own admission criteria for students. What works in one institution may not work in another, and what works in one particular faculty may not work in another one. The admission criteria also needs to be established based on the amount and type of learning support that is available on campus (Dooey, 1999). For example, some universities offer academic literacy courses, bridging courses or workshops to assist students in improving their English and in particular their English for academic purposes (McGhie, 2007). Therefore this research can be used to make individualised plans for university entrance criteria, as well as where academic assistance needs to be focused. The IELTS did not prove to be an accurate determinant of academic performance in this sample. While it did accurately measure writing ability, the institution needs to establish whether it is necessary to discriminate and exclude students based on writing ability, if the students are still able to perform at university.

Noticeable and significant differences were found between writing ability, as well as academic performance of EFL and EAL students, with EAL students scoring significantly lower on the measures. In other words, specific interventions targeting EAL students might be a useful consideration in that these are the students that are performing poorly and struggling with tertiary education.

4.5 Directions for Future Research

It would be beneficial for future research to investigate the aforementioned factors that may be contributing to one's academic success or failure at university. It may be useful to determine the effects that these factors have on students' academic literacy such as reading and writing, to therefore determine the effect they have on academic performance.

It would be useful to use the entire WIAT-II or IELTS tests, which incorporate reading, speaking and listening as well as writing. In this way, the effect that these elements of academic literacy have on academic performance can be explored, and the contribution they make to academic performance can be determined.

This study's results revealed academic success rates higher than those stipulated in previous reports. It would therefore be useful to explore the reasons behind this, and to determine which factors in specific samples, like the one studied in this research, contribute towards better academic performance, and higher pass rates. Factors such as course content and requirements, demographic details of the sample, and assessment methods could be considered.

4.6 Conclusion

This research has examined whether there is a relationship between first year Psychology university students' academic writing ability and academic performance. This was done in order to determine which factors are hindering students' performance at a tertiary level, and to make appropriate intervention plans for poorly performing students entering tertiary education. The study aimed to examine three hypotheses. Firstly, it aimed to establish whether there were correlations between the scores on two writing tests, namely the IELTS and WIAT-II. Secondly, the study aimed to determine whether there was a correlation between scores on the aforementioned writing tests, and academic performance as determined by a Psych1001 module. The module was comprised of two essay marks, two MCQ test marks, and a June examination mark. Lastly the study aimed to determine whether or not there were any differences in the scores of EFL or EAL students in terms of writing ability and academic performance, and specific aspects of these components.

It was discovered that there was a relatively high correlation between the IELTS and the WIAT-II as writing tests. This therefore means that the tests could possibly be used interchangeably as entrance tests or tests to determine one's academic writing ability. However, the WIAT-II was found to be a relatively unreliable measure for the sample, which could have been attributed to scorer unreliability. In other words, the scorers may have been biased, or may not have always marked according to the criteria provided.

While the Psych1001 mark was proven to be a reliable indicator of academic performance, the IELTS and WIAT-II results did not correlate with the Psych1001 marks. The IELTS was proven to have no significant correlation with or contribution to the Psych1001, and therefore academic performance. The WIAT-II was found to have a significant contribution to academic performance, and was the more reliable measure of academic performance.

Significant differences were found between EFL and EAL students in some of the measures. These differences were noted in the mean scores of the EFL and EAL students on the WIAT-II, IELTS and Psych1001 components, where the mean scores of the EAL students were significantly lower. Similarly, differences were noted on the Organisation subtest of the WIAT-II, where the EAL means were again significantly lower. This means therefore that there could be specific difficulties experienced by EAL students in this area of academic writing. Lastly, significant differences were noted on the Test 1, Essay 1, Essay 2 and examination components of the Psych1001 mark, where EAL students' means were significantly lower than those of the EFL students.

While these differences in writing ability and academic performance between EFL and EAL students are evident, it is evident from the results that academic writing does not have a significant effect on academic performance. Academic writing contributes to 11.5% of academic performance, implying that there are other factors that contribute towards academic performance. It is necessary for these factors to be explored in future research. It is possible that some of these factors are South Africa specific, in that they have resulted out of political and social incidents.

It is evident that the students in this sample performed better than statistics from previous years have suggested. Only 10.4% of the sample failed Psych1001, which can be compared to 2009 results where 26.7% of Humanities students in first-year in South Africa failed. This

could be attributed to the specificity of the sample studied. Nonetheless, factors contributing to the relative success of the 2011 Psych1001 students need to be explored further in order to determine the raise in statistics from previous years.

While interventions can be put in place to assist students with their writing ability, these interventions may only be tending to a small portion of the difficulty that students are experiencing in terms of academic success at a tertiary level. These interventions need to be explored, so that students can maximise their opportunities to succeed. The results suggest that interventions could be EFL or EAL specific, in order to address specific difficulties such as organisation of written pieces that are experienced by these groups.

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Appendices

Appendix I: Ethical Clearance Certificate

Appendix II: Information Sheet and Consent Form

Appendix III: Demographic Questionnaire

Appendix IV: IELTS Writing Test

Appendix V: IELTS Band Score Descriptions

Appendix VI: Table showing first-time first-year students' success rates from 2005 to 2009

Appendix VII: Raw Statistical Data

Appendix I

Ethical Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (NON MEDICAL)
R14/49 Cooper

CLEARANCE CERTIFICATE **PROTOCOL NUMBER H1 10212**

PROJECT Exploring the relationship between academic vocabulary and lexical bundles in student writing, IELTS scores and academic performance among university students

INVESTIGATORS	Ms T Cooper
DEPARTMENT	Linguistics
DATE CONSIDERED	11.02.2011
DECISION OF THE COMMITTEE*	Approved unconditionally
NOTE:	

Unless otherwise specified this ethical clearance is valid for 2 years and may be renewed upon application

DATE 18.03.2011 **CHAIRPERSON** .....
(Professor R Thornton)

cc: Supervisor : Prof H Hubbard

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

Signature

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix II

Consent Form

Academic Writing Ability and Performance of First Year University Students in South Africa

You have been invited, as a first-year Psychology student to take part in a research study testing if a score on a writing test can determine academic success or failure. I ask that you read this form and ask any questions you may have before agreeing to be part of this research study.

The study is being conducted by: Claire Maher, Educational Psychology Masters Student at the University of Witwatersrand, Johannesburg.

Background Information
Previous studies have used an IELTS Writing Task to determine the academic success of first year students. The purpose of this study is to determine whether the IELTS score of a written piece of work correlates with first-year, first semester results.

Procedures
If you agree to participation you will be asked to:

- Complete a demographic questionnaire, including information regarding languages you speak.
- Complete an IELTS Writing Test in 40 minutes. Time to complete the test will be given during a first-year Psychology lecture.
- Consent to access to your first-semester results

Risks and Benefits of being in the study
While participation in the actual study is not beneficial, after the test is administered a two-lecture writing workshop will be offered to discuss difficulties that arose during the test. The study holds no real risks.

Confidentiality
You will only be identified by your student number, and the demographic information that you provide – no link will made from the data to you. The records of this study will be kept private. Any sort of report that might be published, will not include any information that will make it possible to identify you. Research records will be stored securely and only the researchers will have access to the records.

Voluntary Nature of the Study
Participation in this study is voluntary. If you decide to participate, you are free to leave at any time if you do not want to participate anymore.

Contacts and Questions
The researcher conducting this study is: Claire Maher. If you have any questions you are encouraged to contact her on 082 768 9251. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Project Supervisor, Psychologist Dr Yvonne Broom on 083 230 0584.

.....

Statement of Consent:

I.....(Full name) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to my participation in the research study.

I understand I can withdraw from the project at any time, should I so desire.

Signature of participant: Date:

.....

Appendix III

Demographic Questionnaire

Personal Information

Wits Person Number: _____

Gender: ☐ Male ☐ Female

Age: _____years

Nationality: _____

Language Background

First language: _____

English is my _____language

☐ First ☐ Second ☐ Third ☐ Fourth ☐ Other

Do you speak English at home? ☐ Yes ☐ No

What other language(s) are spoken in your home? _____

What was the medium of instruction at your high school? _____

What language(s) did you study at school? _____

Appendix IV

IELTS Writing Test

Wits person no.: _____

Academic IELTS test

Writing section

You have 40 minutes for this writing task.

Write about the following topic:

Some people believe that a university education should be available to all students.
Others believe that higher education should be available only to good students.
Discuss these views. Which view do you agree with? Explain why.

Give reasons for your answer and include any relevant examples from your own knowledge or experience.

Write at least 250 words.

Appendix V

IELTS Scores

9 Expert user

Has fully operational command of the language: appropriate, accurate and fluent with complete understanding.

8 Very good user

Has fully operational command of the language with only occasional unsystematic inaccuracies and inappropriacies. Misunderstandings may occur in unfamiliar situations. Handles complex detailed argumentation well.

7 Good user

Has operational command of the language, though with occasional inaccuracies, inappropriacies and misunderstandings in some situations. Generally handles complex language well and understands detailed reasoning

6 Competent user

Has generally effective command of the language despite inaccuracies, inappropriacies and misunderstandings. Can use and understand fairly complex language, particularly in familiar situations.

5 Modest user

Has partial command of the language, coping with overall meaning in most situations, though is likely to make many mistakes. Should be able to handle basic communication in own field.

4 Limited user

Basic competence is limited to familiar situations. Has frequent problems in understanding and expression. Is not able to use complex language.

3 **Extremely limited user**

Conveys and understands only general meaning in very familiar situations. Frequent breakdowns in communication occur

2 **Intermittent user**

No real communication is possible except for the most basic information using isolated words or short forumulae in familiar situations and to meet immediate needs. Has great difficulty understanding spoken and written English.

1 **Non user**

Essentially has no ability to use the language beyond possibly a few isolated words

0 **Did not attempt the test**

No assessable information provided

Appendix VI

First-Time Entering undergraduate success rates of contact and distance mode students in public higher education institutions, by race and cesm, from 2005 to 2009

	2005		2006		2007		2008		2009	
	Contact	Dist	Contact	Dist	Contact	Dist	Contact	Dist	Contact	Dist
RACE										
Black	68.5	48.8	69.8	43.9	70.6	48.9	70.8	45.9	69.7	59.3
Coloured	74.3	53.4	72.7	42.3	72.1	56.1	74.2	57.2	71.9	66.1
Indian	76.8	58.5	75.8	52.1	76.4	60.4	77.1	63.5	72.3	70.9
White	82.3	64.8	82.4	55.6	82.2	66.1	82.3	67.9	80.9	73.9
Other	83.0	64.6	73.7	22.5	67.5	63.8	42.2	100.0	72.1	73.6
Average	**72.9**	**53.7**	**73.5**	**47.3**	**73.7**	**53.2**	**73.8**	**51.4**	**72.2**	**63.4**
Science Engineering & Technology	73.4	34.1	73.2	32.9	73.4	38.9	74.4	36.0	71.2	47.3
Business and Commerce	67.9	49.3	70.1	39.7	70.6	49.8	71.1	48.1	68.4	58.8
Education	80.0	77.9	79.9	73.1	78.8	70.7	71.0	69.9	82.3	81.1
Other Humanities	74.1	56.6	74.6	51.0	74.5	56.5	75.1	57.4	73.3	64.2
Average	**72.9**	**53.7**	**73.5**	**47.3**	**73.7**	**53.2**	**73.8**	**51.4**	**72.2**	**63.4**

Note Success rates are determined as follows: a calculation is made of full-time equivalent (FTE) enrolled student totals for each category of courses. A further FTE calculation, using the same credit values, is made for each category of courses for those students who passed the courses. The success rates are then determined as: FTE passes divided by FTE enrolments.

Appendix VII

Descriptive Statistics: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	109	87.2	87.2	87.2
Male	16	12.8	12.8	100.0
Total	125	100.0	100.0	

Descriptive Statistics: EFL/EAL

	Frequency	Percent	Valid Percent	Cumulative Percent
EFL	77	61.6	61.6	61.6
EAL	48	38.4	38.4	100.0
Total	125	100.0	100.0	

Descriptive Statistics: Age

	Frequency	Percent	Valid Percent	Cumulative Percent
17	8	6.4	6.4	6.4
18	92	73.6	73.6	80.0
19	22	17.6	17.6	97.6
20	3	2.4	2.4	100.0
Total	125	100.0	100.0	

Regression Analysis: Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.290[a]	.084	.076	10.848
2	.340[b]	.115	.101	10.704

a. Predictors: (Constant), IELTS

b. Predictors: (Constant), IELTS, WIAT Total

c. Dependent Variable: Psyc1001

Descriptive Statistics: First Language

	Frequency	Percent	Valid Percent	Cumulative Percent
Afrikaans	3	2.4	2.4	2.4
English	77	61.6	61.6	64.0
French	2	1.6	1.6	65.6
Portuguese	1	.8	.8	66.4
Sepedi	8	6.4	6.4	72.8
Setswana	4	3.2	3.2	76.0
Shona	1	.8	.8	76.8
Siswati	5	4.0	4.0	80.8
Sotho	4	3.2	3.2	84.0
Tswana	2	1.6	1.6	85.6
Xhosa	4	3.2	3.2	88.8
Xitsonga	3	2.4	2.4	91.2
isiZulu	11	8.8	8.8	100.0
Total	125	100.0	100.0	

Regression Analysis: Coefficients[a]

Model	Unstandardised Coefficients		Standardised Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	32.656	9.246		3.532	.001		
IELTS	4.508	1.343	.290	3.356	.001	1.000	1.000
(Constant)	34.333	9.158		3.749	.000		
IELTS	1.606	1.923	.103	.835	.405	.475	2.105
WIAT Total	.738	.355	.257	2.082	.039	.475	2.105

a. Dependent Variable: Psyc1001

Correlation Matrix between WIAT-II subtests, WIAT-II total, IELTS, Psych1001, EFL/EAL and First Language

	Mech	Org	Theme	Vocab	Word C	WIAT	IELTS	Psyc1001	EFL/ EAL	First Lang
Mech	1	.259**	-.055	.090	-.141	.361**	.270**	.095	-.113	-.099
Org	.259**	1	.506**	.457**	.315**	.924**	.686**	.292**	-.285**	-.291**
Theme	-.055	.506**	1	.351**	.337**	.688**	.465**	.297**	-.146	-.219*
Vocab	.090	.457**	.351**	1	.313**	.616**	.468**	.211*	-.006	-.048
Word C	-.141	.315**	.337**	.313**	1	.437**	.271**	.093	.020	-.049
WIAT	.361**	.924**	.688**	.616**	.437**	1	.725**	.332**	-.236**	-.275**
IELTS	.270**	.686**	.465**	.468**	.271**	.725**	1	.290**	-.319**	-.288**
Psyc1001	.095	.292**	.297**	.211*	.093	.332**	.290**	1	-.334**	-.410**
EFL/EAL	-.113	-.285**	-.146	-.006	.020	-.236**	-.319**	-.334**	1	.803**
First Lang	-.099	-.291**	-.219*	-.048	-.049	-.275**	-.288**	-.410**	.803**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix between WIAT-II components and Psych1001 components

	Mech	Org	Theme	Vocab	Word C	June Exam	Essay 1	Essay 2	Test 1	Test 2
Mech	1	.259**	-.055	.090	-.141	.123	.041	.141	-.045	.074
Org	.259**	1	.506**	.457**	.315**	.239**	.237**	.265**	.258**	.231**
Theme	-.055	.506**	1	.351**	.337**	.238**	.258**	.163	.292**	.207*
Vocab	.090	.457**	.351**	1	.313**	.154	.185*	.189*	.163	.259**
Word Count	-.141	.315**	.337**	.313**	1	.093	.018	.085	.078	.065
June Exam	.123	.239**	.238**	.154	.093	1	.523**	.476**	.663**	.632**
Essay 1	.041	.237**	.258**	.185*	.018	.523**	1	.374**	.438**	.403**
Essay 2	.141	.265**	.163	.189*	.085	.476**	.374**	1	.428**	.421**
Test 1	-.045	.258**	.292**	.163	.078	.663**	.438**	.428**	1	.478**
Test 2	.074	.231**	.207*	.259**	.065	.632**	.403**	.421**	.478**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix between Psych1001 components, Psych1001, EFL/EAL, WIAT-II and IELTS

	June Exam	Essay 1	Essay 2	Test 1	Test 2	Psyc1001	EFL/EAL	WIAT Total	IELTS
June Exam	1	.523**	.476**	.663**	.632**	.909**	-.366**	.280**	.252**
Essay 1	.523**	1	.374**	.438**	.403**	.638**	-.268**	.262**	.257**
Essay 2	.476**	.374**	1	.428**	.421**	.671**	-.293**	.282**	.232**
Test 1	.663**	.438**	.428**	1	.478**	.781**	-.243**	.269**	.229*
Test 2	.632**	.403**	.421**	.478**	1	.771**	-.123	.270**	.179*
Psyc1001	.909**	.638**	.671**	.781**	.771**	1	-.334**	.332**	.290**
EFL/EAL	-.366**	-.268**	-.293**	-.243**	-.123	-.334**	1	-.236**	-.319**
WIAT Total	.280**	.262**	.282**	.269**	.270**	.332**	-.236**	1	.725**
IELTS	.252**	.257**	.232**	.229*	.179*	.290**	-.319**	.725**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).