

# ACADEMIC SUCCESS, LANGUAGE, AND THE FOUR YEAR DEGREE: A CASE STUDY OF A 2007 COHORT

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## ABSTRACT

Tension exists between broadening access to tertiary education and ensuring throughput; as simply enrolling underprepared students into three-year degree programmes can be counterproductive, leading to failure and an increased dropout rate. Thus, correct placement of students and effective teaching interventions are crucial. On this basis, the University of Johannesburg implemented a four year BSc degree. Typical of many extended degree interventions, the first year was offered over a two year period, with an intensive teaching programme designed to reinforce and promote academic literacy skills. This case study tracked a cohort of such students. The class was multi-racial, multi-ethnic and mixed gender. In the main, students had poor school results and weak language abilities. Using the Placement Test in English for Educational Purposes' (PTEEP) test as a pre and post intervention test, demonstrated that the academic intervention improved the academic literacy levels of all the students, but students hailing from poor, disadvantaged schools, who wrote English as a Second Language for matric, benefitted the most. From a gender perspective, black female students gained the most from the intervention. Still, in general, the higher the original (PTEEP) score, the more likely the student was to succeed. Students who attended well-resourced schools and wrote English First Language for matric generally obtained high PTEEP scores. In terms of graduation rates, a four year degree, combined with an intervention such as described here, can increase epistemological access to the Sciences. Importantly, success was nuanced, as there were still drop outs and academic exclusions. Not all were able to graduate within four years and some had to change to other degree programmes.

**Key words:** access; placement; PTEEP, four year degree; academic literacy; graduation rates

## INTRODUCTION

South African universities are compelled by the Higher Education Act (No 101 1997) to broaden access and support equity through directed admission policies and criteria (NDoE 1997; Koch and Foxcroft 2003). Consequently, access to university could no longer be based solely on school exit results (the matriculation scores), as a great deal of research has shown that school results are largely determined by race and class. So to continue to rely only on these

results would perpetuate past social divisions and undermine efforts to transform South Africa (Fiske and Ladd 2006; Louw et al. 2006; Essack and Quayle 2007; Pienaar and McKay 2014). In addition, many studies have found that matriculation results were not necessarily reliable predictors of success at tertiary level (Van Eeden et al. 2001; Koch et al. 2001; Koch and Foxcroft 2003; Grussendorff et al. 2004; Fraser and Killen 2005; Van der Merwe and De Beer 2006; Enslin et al. 2006; Cliff and Hanslo 2009; Fleisch et al. 2015). Consequently, in order to manage the tradeoff between maintaining academic excellence yet increasing access in a politically sensitive manner, tests which could predict academic success came into use (Biggs 2003; Grussendorff et al. 2004; Van der Merwe and de Beer 2006; Fleisch et al. 2015). In addition, tertiary funding mechanisms encouraged transformation by increasing overall enrolment numbers specifically to assist previously marginalised students to access university (Cloete 2016). Poor academic performance however, now characterizes the typical South African three year degree programmes with high dropout rates and 45 per cent of students never graduating (see Eiselen and Geyser 2003; Lourens and Smit 2003; Grussendorff et al. 2004; Coughlan 2006; Cloete 2016). Thus, massification of higher education simply increased failure and dropout rates (Badat and Sayed 2014; Heydenrych and Case 2015). So a tension exists between broadening access yet ensuring students graduate (Scott et al. 2005; Engstrom and Tinto 2008). Subsequently, it was found that even with an accurate test for academic potential, placing students into a degree programme without providing academic support undermines their chances of success. This may be due to an English language proficiency deficit (Sebolai 2013; Van Wyk 2014). That is, students enter into tertiary studies with a poor command of the language of teaching and learning (LoLT), leading to academic failure (Cottrell 2001; Van Eeden et al. 2001; Fleisch et al. 2015). If this is the case, then extensive *scaffolding* is required to enable additional-language English speakers to access texts, expand their scientific register, and become familiar with academic discourse (Weideman and Van Rensburg 2002; Du Plessis and Van Rensburg 2006; Uys et al. 2007; Singh 2015). Koch et al. (2001), however, found that even English proficiency (as measured by matriculation English) was not an accurate predictor of success; as reading comprehension and study skills were also crucial. This is confirmed by Barrass (2002) who notes that science students need complex language skills and an extensive academic vocabulary in order to communicate within academia. With this in mind, there seems to be broad consensus that a four year degree may be a solution to the high failure rate/dropout rate problem (Leibowitz and Bozalek 2014; Cloete 2016). That is, the extended four year degree will enable students with poor secondary school results access a Science degree, but within a context whereby academic support is provided to foster academic success. Thus, the extended

degree is also forward looking; giving attention to the skills and knowledge that students will need to succeed in the subsequently years of their study programme. Overall, the emphasis is retention and throughput (De Klerk et al. 2006; Van den Berg 2006). This study reports on a four year degree programme offered at the University of Johannesburg (UJ) and offers insight into what the empirical consequences of such an enrolment decision will have for both module throughput and graduation rates. As such, it could be used to inform policy and the structure of the four year degree.

## **THE PLACEMENT TEST IN ENGLISH FOR EDUCATIONAL PURPOSES (PTEEP) TEST**

Initially, there was no nationally accepted valid and reliable test which assessed academic potential, making admissions and placement management very difficult (Visser and Hanslo 2005; Van der Merwe and De Beer 2006). Thus, a placement test, commonly known as the PTEEP test, was developed by the Alternative Admissions Research Project (AARP) as an ‘assessment tool which endeavours to widen access into the University of Cape Town [by identifying] educationally talented students with the potential to succeed’ (Visser and Hanslo 2005, 1161). The PTEEP was extensively tested (for more than a decade) and was recognised by UCT as a valid predictor of academic success. In particular, for those who score in the top three deciles of the PTEEP test, it has been shown to be a better predictor of success than matriculation English scores (Cliff et al. 2007). The PTEEP test aimed to assess the capacity of students to cope with the thinking and learning activities required of students in their first year of higher education. Research conducted by Cliff et al. (2005, 4) demonstrated that success at university is often related to the ability of the student to ‘negotiate the grammatical and textual structure of language and understand its functional and socio-linguistic bases’. PTEEP is thus, a skills-based test that determines a student’s ability to: derive meanings of words; understand metaphorical language; draw conclusions and demonstrate insightfulness; identify logical development of an argument; perceive audience; identify main ideas; comprehend visual data and work with basic numbers. According to Cliff et al. (2005), PTEEP scores are to be interpreted as follows: Students who score 50 percent or more are not likely to be hampered by language barriers. If such students fail, the causes are probably not due to language-related issues. Students who score between 40 and 49 per cent will encounter language difficulties and need at least some additional language support. Students scoring between 20 and 39 per cent are at serious risk and should be enrolled for an extended degree or foundational programme. Allowing students who score below 20 per cent into a tertiary academic programme is not

recommended, due to the extensive and on-going support such students will require.

Many other South African universities began to make use of this test including UJ. However, UJ did not make use of the test for admissions purposes as any alternative selection test must clearly identify both 'at risk' students and 'students with potential for success', irrespective of race, gender and socioeconomic background (Grussendorff et al. 2004; De Klerk et al. 2006; Essack and Quayle 2007). This is in line with Cliff et al.'s (2005) recommendations; that is, PTEEP scores must be interpreted in conjunction with other indicators of achievement, such as matriculation scores or demographic factors. However, using PTEEP to merely give 'at risk' students access to higher education will not necessarily mean they will graduate (Cliff et al. 2005; De Beer 2006). Thus, the key role of PTEEP is for the test to be used to place such students into a programme which is structured for success (Craig 1996). For this reason, the extended or four year degree programme was developed.

### **A DESCRIPTION OF THE 2007 COHORT AND THE EXTENDED DEGREE AT UJ**

The first year of the Science degree was extended over a period of two years and included additional academic support modules. The purpose of the extended time was to spread the academic workload, to give students time to adapt (and become socialized) to university life, allow students more time to complete tasks and to attain academic literacies (Zamel 1998). This extended time was supplemented with support and scaffolding to ensure that access also meant success (Wood and Lithauer 2005; Essack and Quayle 2007). That is, students who scored less than 60 per cent on the PTEEP test were enrolled for a specially designed, three-hour per week, module for academic literacies support, namely Language for Science (LFS). This LFS module focussed on developing linguistic skills; reading skills; how to write an argumentative essay; how to cite and reference sources; how to use scientific genres, as well as the development of cognitive skills such as applying knowledge in new contexts; formulating informed opinions; presenting evidence and examining sources critically. As this particular 2007 cohort under study was enrolled for Geography, the first year Geography curriculum was spread over two years and academic literacy skills such as essay writing, referencing, solving complex problems, statistical analysis and reading for understanding were embedded into these modules. Thus, Geographical tasks were re-orientated to provide the content and literacy overlap necessary to enable success. This embedding of language skills into the course is a successful strategy that corresponds well with experiences at other South African universities, such as the University of Natal (Grayson 1997). The extended degree at UJ was also characterised by small classes to allow for active participation in order to promote deep learning. To this end, the

intervention was based on the work of Springer et al. (1999); Waldrip and Fisher (2001); Bennet et al. (2001) and Gerstman and Rex (2001). The extended degree Geography class started off the year with 41 students. Unlike most extended degree courses, the class was multiracial, making the extended degree at UJ different from that of most South African universities (see Table 1) (Smith et al. 2014). All the enrolled extended degree students did not qualify for entry into the three-year BSc degree programme due to low matriculation scores.

**Table 1:** Demographics of the 2007 extended degree Geography class

<b>Gender</b>		<b>Race</b>		<b>Age (mean: 18.87 yrs)</b>	
<b>Variable</b>	<b>%</b>	<b>Variable</b>	<b>%</b>	<b>Variable</b>	<b>%</b>
Male	72.5	Black	66.6	17 – 19	68.3
		White	23.8	20	17.1
Female	27.5	Coloured	4.76	21	7.3
		Indian	4.76	23	2.4
<b>Schooling</b>			<b>Province</b>		
<b>Variable</b>	<b>%</b>	<b>Variable</b>	<b>%</b>	<b>Variable</b>	<b>%</b>
Ex Model C	31.6	Gauteng	68.6		
Other	5.3	Limpopo	14.2		
Township	42.1	KZN, FS and NW and Mpumalanga	17.1		
Inner city private	7.9				
Private elite	7.9				
Private Catholic	2.6				

## METHODOLOGY

This is a small scale empirical cohort case study and is, therefore, best described as a detailed contextual analysis of a limited number of students and the relationship between: their first year Geography academic results, graduation rates, their matriculation English scores and their PTEEP results. This differs from the long-term, longitudinal studies of Smith (2009); Essack et al. (2012) and Smith et al. (2014) but in line with the studies of Ratangee (2007); Sebolai (2013) and Van Wyk (2014). It also contributes to the understanding of a four year degree programme by presenting findings from UJ of which little has been published to date (see van Ryneveld et al. 2011; Shandler and Steenekamp 2014). It also offers an in-depth look at the extended degree class; and as such, offers insight into the nature and complexity of success in tertiary studies. The first objective of the research was to establish how well PTEEP scores predicted success in first year and graduation rates. For comparative purposes, matriculation English scores were included in the analysis. The second objective was to use the PTEEP score as a benchmark against which the success of the intensive year-long intervention, which is the defining characteristic of the extended degree, could be measured. This was a response to an expressed

need based on the adoption of the extended degree in 2006 (McKay 2013). The research questions were as follows: (1) Is there a positive correlation between matriculation English scores and first year Geography results?; (2) Is there a positive correlation between PTEEP scores and first year Geography results? And; (3) Did the intervention work in terms of increasing the January 2007 PTEEP score (the pre-test) and the and October 2007 PTEEP score (the post-test)?

Descriptive statistics was initially used to unpack the results in order to reveal the important aspects of the distribution of data. The data was then further analysed using inferential statistics. Raw scores for matriculation English, PTEEP and first year Geography results were manipulated using descriptive statistics and validated using inferential statistics. The author assumed the validity of the matriculation data based on Umalusi reports, the validity of PTEEP based on AARP 2003, 2004 and 2005 Annual Reports and of the first year Geography results based on the use of a regulated, managed system of assessment and data collection. The first year examination scripts were also moderated by an internal moderator. All the students gave informed consent and anonymity was guaranteed. None indicated that they did not want to participate in the study. Gender, race, age and school type were self-declared. As this is a small scale case study [n=41], it is recommended that additional work is carried out to further explore the validity of PTEEP and matriculation scores by undertaking long-term longitudinal cohort studies (such as that conducted by Essack et al. 2012 at the University of Kwa-Zulu Natal and Smith et al. 2014 at the University of Cape Town). Additionally, the students who participated in the extended degree programme could (or should) be traced and using qualitative research methods, with their lived experiences of the programme placed on record (see Shandler and Steenekamp 2014). Lastly, it must be noted that the PTEEP test is no longer in use and has largely been replaced by the National Benchmarking Test or NBT (Sebolai 2013; Van Wyk 2014).

However, the data reported here does not include all the members of the first year Geography class for a number of reasons. Firstly one white male student died mid-year so there is incomplete data for him. Secondly the dropouts were not included in the module analysis, as data for these students was incomplete. In terms of module drop-outs, two were black students, one male and one female who both dropped out before the mid-year exams. Both of these students had very low PTEEP scores (24.9% and 35% respectively). They also performed very poorly in their mid-year results (28% and 35% respectively). Two black male students dropped out after the mid-year exam. One had a low PTEEP score; a low mid-year score and a low mid-year exam score (36.7%, 41% and 31% respectively). The other did not write the PTEEP, but

his mid-year results and mid-year scores were good (58% and 65% respectively). One Indian female student dropped out after the mid-year examination (with a PTEEP score of 67.8%, a mid-year score of 41% and a mid-year examination score of 44%). Three black male students were academically excluded from writing the final end of year Geography examinations. All three recorded poor PTEEP scores (26%, 30% and 30.5%); poor mid-year scores (35%, 38% and 41%); poor mid-year exam scores (30%, 43% and 48%) and poor final year scores (30%, 39% and 38%). Lastly, some students had to be excluded from the analysis as they either wrote none or only one of the PTEEP tests and/or their matriculation results were missing.

## FINDINGS AND DISCUSSION

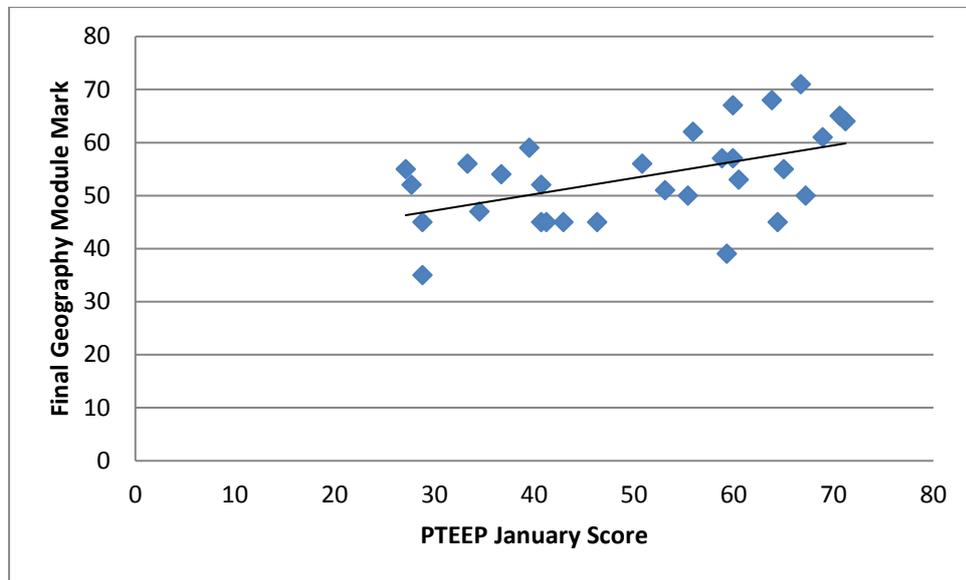
In terms of the research questions it was found that there is a positive correlation between matriculation English scores and first year Geography results, and there is a positive correlation between PTEEP scores and Geography results (see Table 2 and Figure 1). Thus, language proficiency is strongly linked to academic success in this module. However, by the end of the academic year, the correlation declined. For the ESL students the weakening correlation between their incoming January PTEEP scores, their mid-year results and their final results seems shows the Geography extended degree module helped the very students it is designed to. Visser and Hanslo (2005, 1162) found that ‘academic development programmes and course interventions may have impacted positively on the performance of weak incoming students and this serves to further depress the correlation co-efficient when correlating testing instrument scores with course performance scores’, thus, a weak correlation can be taken as proof of academic intervention.

**Table 2:** Results, for the cohort, by Matriculation English Second Language and English First Language

Overall results for the whole class		ESL students		EFL students	
Variable	Mean (%)	Variable	Mean (%)	Variable	Mean (%)
PTEEP 1 (January)	48	PTEEP 1 (January)	42.42	PTEEP 1 (January)	54.66
PTEEP 2 (October)	56	PTEEP 2 (October)	52.56	PTEEP 2 (October)	60.87
Matric English	62.39	Matric English	61.04	Matric English	63.73
Final Geography	53.5	Final Geography	52.53	Final Geography	55.31

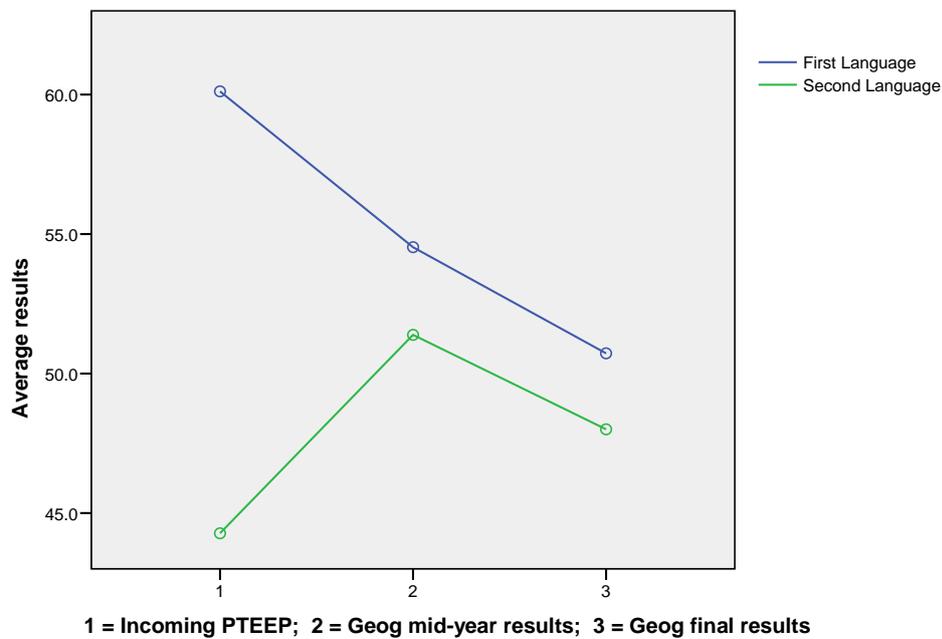
In terms of English language proficiency, the South African Senior School Higher Grade Certificate English results appear to be a reliable indicator of success for those students who wrote matriculation English as a first language (EFL) (see Figure 2). Students who had over 60 per cent for EFL Matric were more likely to pass the first year Geography module. In addition, such students also performed well in the PTEEP test. However, those who wrote English EFL in matric but scored between 50 and 60 percent turned out to be ‘at risk’ students, with some

performing very poorly in Geography. Proficiency in the language of teaching and learning therefore does not, on its own, guarantee success. A different situation pertained to students who wrote the South African Senior School Higher Grade Certificate English as a second language (ESL).



**Figure 1:** The relationship between Geography module results and incoming PTEEP scores

For ESL students, there was a significant discrepancy between their matriculation English results and their incoming PTEEP scores, with their mean PTEEP scores far lower than their matriculation English score. Such a finding seems to support the work of Fleisch et al. (2015). This can indicate the extent to which ESL students need additional language support. However, there was a weak correlation between their PTEEP scores and the Geography midyear results. The correlation was even weaker by the November examination and the final Geography results, thus highlighting the significant role time and extended support play in academic success. That is, ESL students progressively outperformed their incoming January PTEEP scores.



**Figure 2:** Geography performance based on EFL versus ESL

The other research question sought to determine if the intervention was effective by comparing the PTEEP score between January 2007 (the pre-test) and October 2007 (the post-test). That is, did the intervention increase levels of academic literacy? The intervention had a positive effect on the cohort and, as such can be used to further verify the success of the extended degree intervention at first year (see Table 2). This is in line with the finding by van Wyk (2014) at the University of the Free State. Mean scores were 50.7 per cent for incoming PTEEP and 56 per cent October PTEEP, although the median scores remained virtually similar, at 54.3 per cent and 55 per cent respectively. There were also some students (8) who performed less well in the PTEEP October test. Their scores declined, on average by 3.63 per cent. Only students whose incoming PTEEP scores were above 50 per cent fell into this category. For those who improved however, their scores went up an average of 9.1 per cent. Some students posted remarkable improvements, of between 10.1 per cent and 24.8 per cent. These improvements were from a low base, however. Students who posted very low incoming PTEEP scores saw the largest improvements, from 39.5 per cent to 58.8 per cent and 27.7 per cent to 52.5 per cent for example.

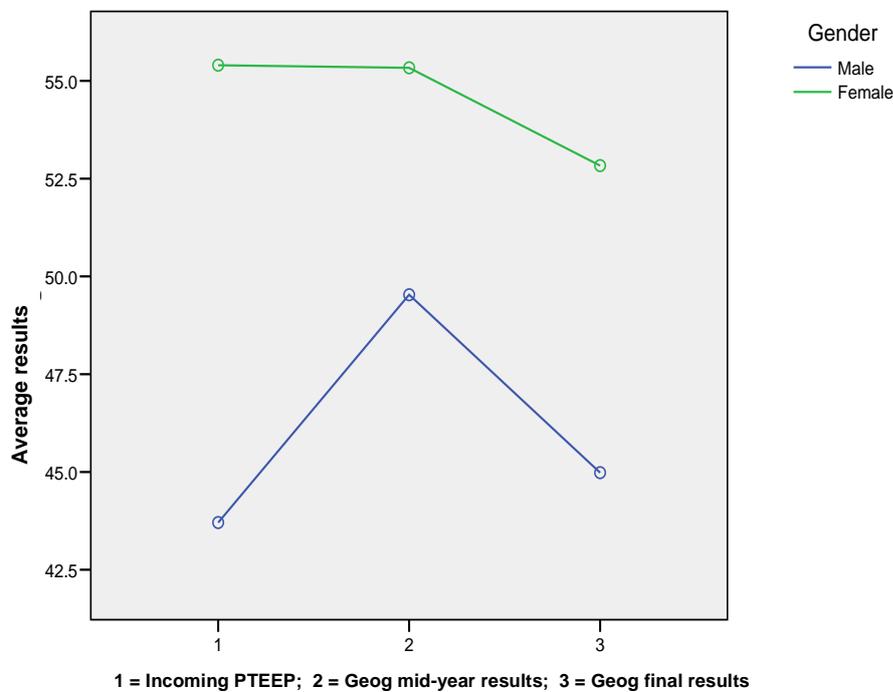
The use of PTEEP as a means to measure the success of the intervention demonstrated that academic performance in Geography is strongly correlated with proficiency in English; and that the skill set which students needed to perform well in PTEEP was the same skills set required for success in first year Geography. This can be seen in Tables 3 and 4 where the PTEEP

October scores strongly track the final Geography module results. This finding corresponds well with the findings of Van Eeden et al. (2001) and that of Cliff et al. (2005). The results of this case study support Henning et al. (2001), who argue that English language skills need explicit attention as they are fundamental to the empowerment of students. Van Eeden et al. (2001) come to the same conclusion. This said, Henning et al. (2001) argue that this additional language support must be given within the discipline in order to immerse students in the discourse of the discipline, a view supported by the Council for Higher Education (Improving Teaching and Learning Resources, No. 4 2004:106): ‘The learning of languages and discourses for academic purposes is labour-intensive and time-consuming. Research shows that ‘quick-fix’, ‘add-on’ remedial courses have little value, particularly because few students are able to transfer what is learnt to the mainstream curriculum. Relevance and contextualization are crucial for language learning, and recurrent, meaningful and authentic practice is also required’. In spite of the integration between the Geography module described here and a language support module called LFS (where projects and materials were shared), the development of academic literacies is a complex and time consuming process, and the provision of such support cannot guarantee success in the short term (McKay 2013).

There was no statistically significant difference in terms of racial groupings. However, based in their January PTEEP scores, white students enter university with a higher ‘base level’ of language proficiency and language skills, but black students were able to narrow this gap by the end of the year. In terms of gender, female students generally entered with higher January PTEEP scores, higher matric results, and higher Geography results than male students, and females generally benefited more from the intervention. Male ESL students were the least likely to be successful in the Geography module (see Figures 2, 3 and 4). The predictive validity of the PTEEP test was, however, the same for both genders (see Table 3 and Figure 3). Female ESL students outperformed their male ESL peers. They also held their own against both male and female EFL students. So, the intervention assisted ESL students, but in particular, helped students who attended township and inner city schools, as they were also able to outperform their incoming PTEEP score. In order to test for difference between school backgrounds, students who matriculated from township and inner city schools were placed into one category. Students who matriculated from former Model C (or suburban schools) and elite private schools were placed into another. For the township and inner city school students, there was only a weak correlation between their PTEEP scores and their Geography results, indicating the effectiveness of the intervention. For the suburban schools and private schools, the correlation between PTEEP and mid-year results was very strong. Thus, school background is consequential unless a teaching intervention is in place (see Table 4 and Figure 4).

**Table 3:** Overview of results by gender

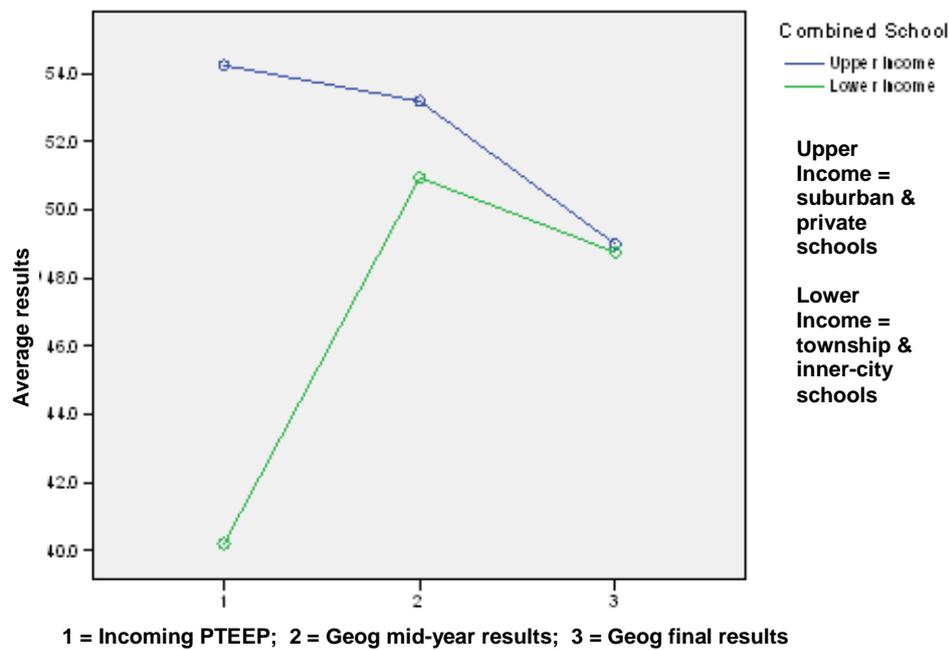
Overall results for all males		Male ESL students		Male EFL students	
Variable	Mean (%)	Variable	Mean (%)	Variable	Mean (%)
PTEEP 1 (January)	45.36	PTEEP 1 (January)	38.99	PTEEP 1 (January)	54.76
PTEEP 2 (October)	55.26	PTEEP 2 (October)	51.17	PTEEP 2 (October)	60.44
Matric English	61.29	Matric English	59.12	Matric English	62.5
Final Geography	52.43	Final Geography	49.59	Final Geography	56.22
Overall results for all females		Female ESL students		Female EFL students	
Variable	Mean (%)	Variable	Mean (%)	Variable	Mean (%)
PTEEP 1 (January)	53.94	PTEEP 1 (January)	48.65	PTEEP 1 (January)	64.52
PTEEP 2 (October)	57.7	PTEEP 2 (October)	54.34	PTEEP 2 (October)	62.13
Matric English	63.5	Matric English	67.63	Matric English	66
Final Geography	56%	Final Geography	57.38	Final Geography	52.33



**Figure 3:** Performance based on Gender

**Table 4:** Overview of results by school type

Overall results for all township and inner city schools		Overall results for all ex-Model C, elite private schools and Catholic schools	
Variable	Mean (%)	Variable	Mean (%)
PTEEP 1 (January)	42.56	PTEEP 1 (January)	54.18
PTEEP 2 (October)	51.63	PTEEP 2 (October)	59.49
Matric English EFL	61.5	Matric English EFL	65.33
Matric English ESL	56.92	Matric English ESL	66.25
Final Geography	53.31	Final Geography	53



**Figure 4:** Performance based on school

Drilling down into the incoming PTEEP scores allowed for a more complete understanding of the effect proficiency in the language of teaching and learning has. For example, Figure 5 demonstrates that persistence appears to be a factor in itself; that is, it is not linked to language proficiency, as there is no relationship between the duration a student was registered and academic literacy levels. Additional research into what drives persistence is, therefore, suggested. However, this was not true for actual performance in modules and performance across the entire four year degree programme. This can be ascertained when incoming PTEEP scores are used to examine academic performance in modules. As is clear from Figure 6, academic literacy levels positively influence the obtaining of distinctions for a module. In particular, students with a low incoming PTEEP entrance score are very unlikely to achieve this kind of success. This may have implications for how students are selected for post graduate studies. For this class, 29.27 per cent went on to enrol in a BSc Honours degree. All but one of these students obtained at least one distinction in their undergraduate academic career. The one student, who did not achieve a distinction in their undergraduate degree, did not complete the Honours degree. Although, not all the students who obtained distinctions went on to post graduate studies.<sup>1</sup>

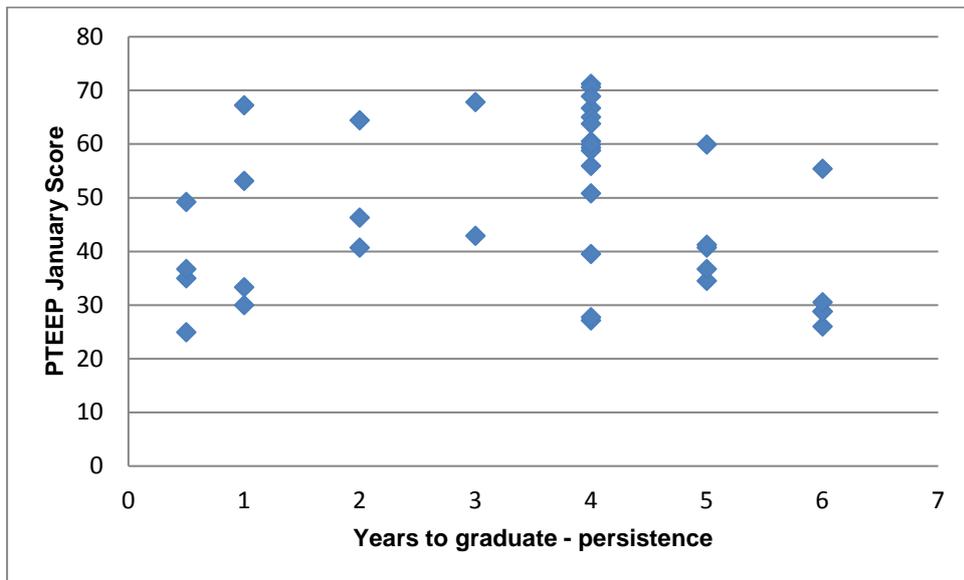


Figure 5: Graduation rate, persistence in the system

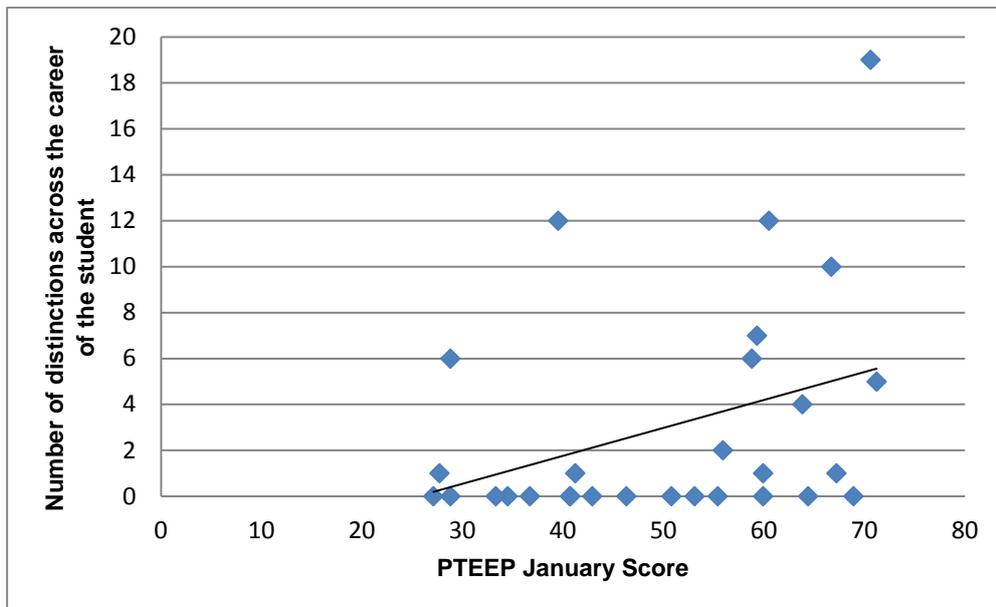


Figure 6: Distinctions and PTEEP score

An examination of the awarding of supplementary examinations also serves to reinforce the conclusion that academic literacy and proficiency in the language of teaching and learning impacts on academic performance (see Figure 7). Supplementary examinations do not have to be paid for at UJ, but they do have to be granted by the faculty in question. They are granted to students who have a final module mark of between 45 per cent and 49 per cent, although there are some exceptions to this rule. In total, the students in this class wrote a total of 87 supplementary examinations or an average of 2.3 per student over the course of their undergraduate academic career. Most students write a supplementary examination paper at some stage. As there is a (weak) negative correlation between the incoming PTEEP score and

the number of supplementary examinations; it would be fair to say that the higher the incoming PTEEP score, the less likely the student will have to write a supplementary examination in order to pass a module. The two outliers are interesting cases, one (black male), who wrote nine supplementary examinations went on to not only graduate, but complete an honours degree in Information Technology. The other (white male), with eight supplementary examinations and six years in the system, was eventually academically excluded. However, Figure 8 demonstrates that there is a relationship between persistence and the number of supplementary examinations written. That is, the longer the student remains in enrolled, the greater the chance that they will write supplementary examinations.

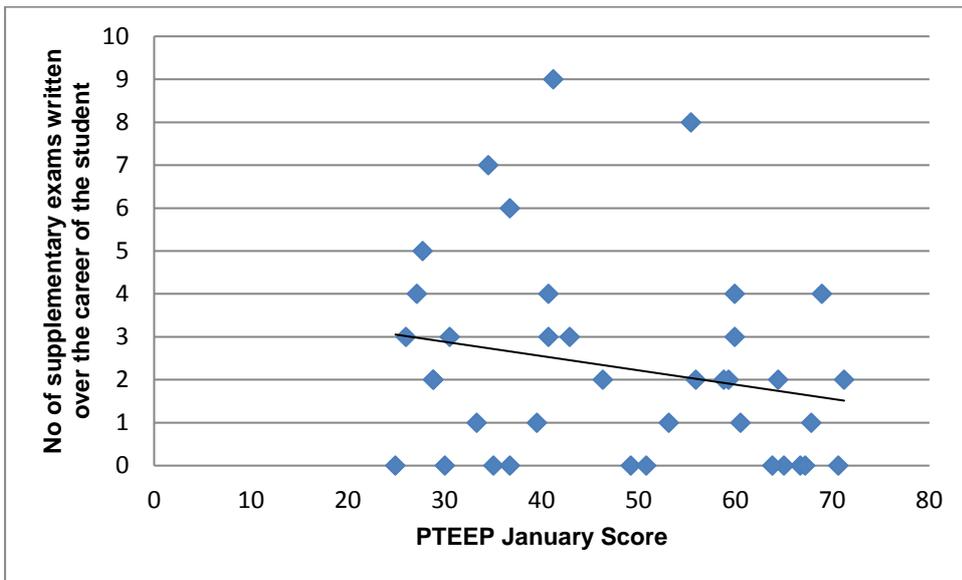


Figure 7: Relationship between PTEEP score and supplementary examinations written

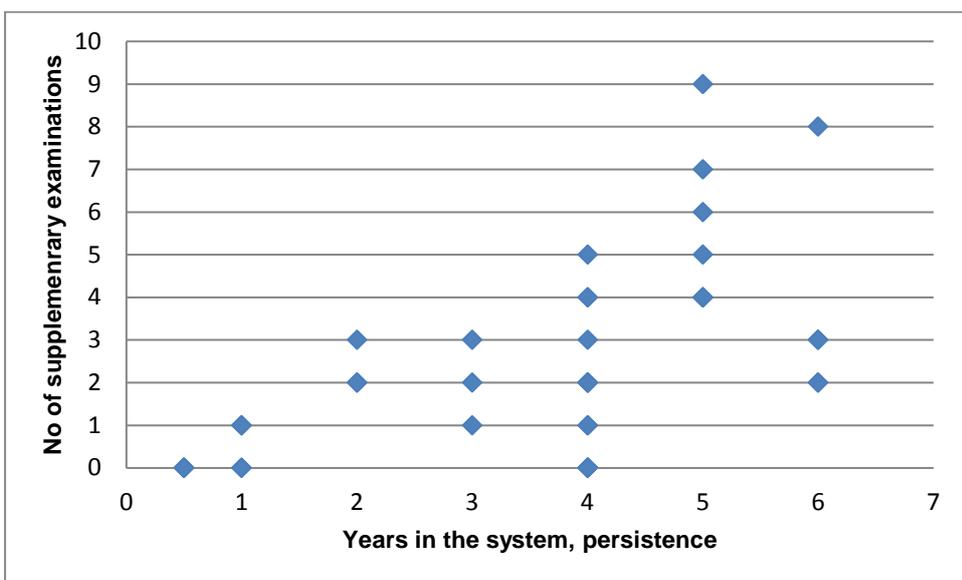
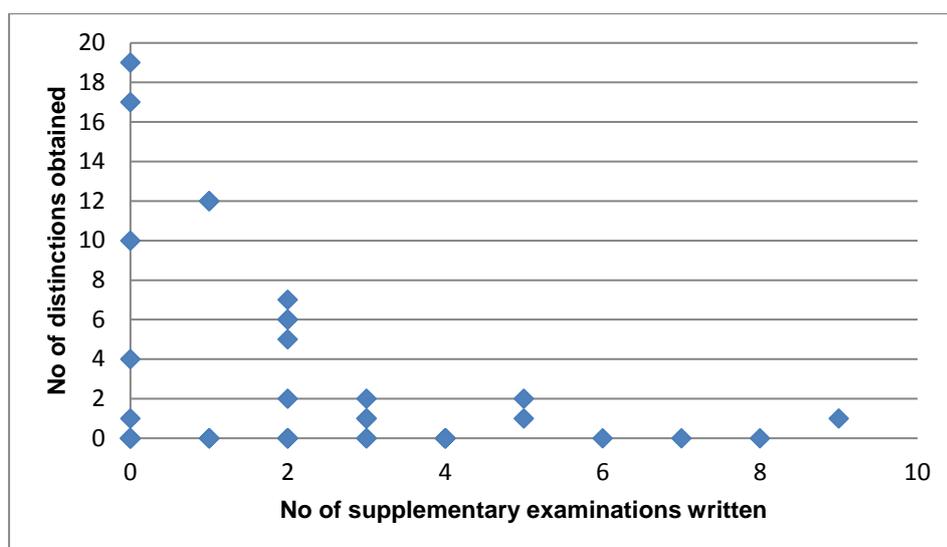


Figure 8: Links between persistence, supplementary examinations

When both distinctions and supplementary examinations are looked at, one can see that there is an inverse relationship between the number of distinctions a student obtains and the number of supplementary examinations written (see Figure 9). Therefore, the number of supplementary examinations which must be written can be an indicator of a student who is struggling academically. This in turn seems to be linked to low proficiency rates in the language of teaching and learning. So, a four year degree offered in conjunction with a structured academic intervention designed to assist students acquire academic literacy, will not necessarily increase graduation rates and improve throughput as the effects of low levels of language proficiency are long term. This can be further verified in Figure 10, which indicates a weak negative relationship between the incoming PTEEP score and propensity to fail a module. That is, the higher the incoming PTEEP score, the less likely the student is to fail many modules. In total, this class failed 142 modules over the course of their enrolment, an average of 3.7 per student. When looking at number of modules failed versus years of enrolment (Figure 11) it is clear that failure leads to a) dropout and/or academic exclusions, and b) failure results in students taking longer to graduate. Apart from the likely negative psychological effect such failure may have on individual students, their families bear the financial costs associated with universities fees and the like (Visser and Hanslo 2005). Although some students repeat courses and attain success, it may be that such high rates of failure represent systemic inefficiencies. On this basis, the structure and supported offered across the degree – that is – beyond the extended first year – may need to be bolstered.



**Figure 9:** Supplementary examinations compared to distinctions obtained.

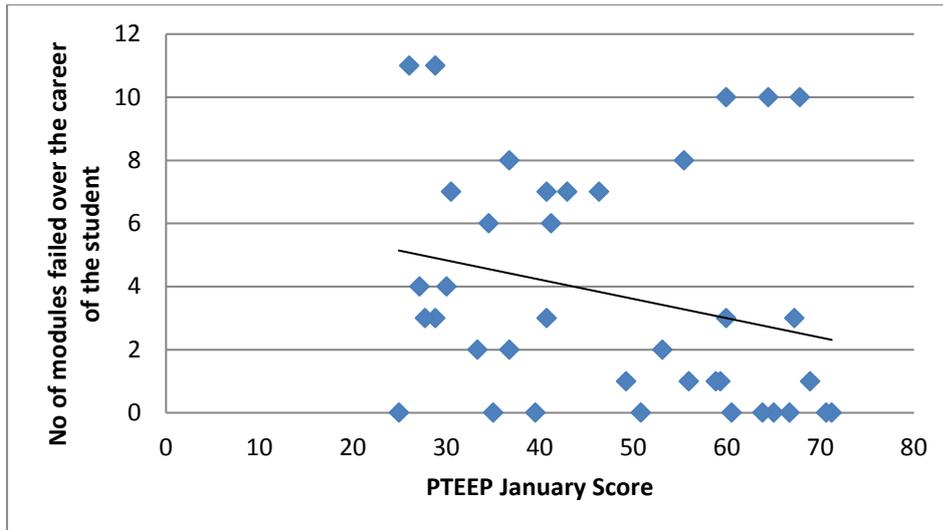


Figure 10: Comparing January PTEEP scores to number of modules failed

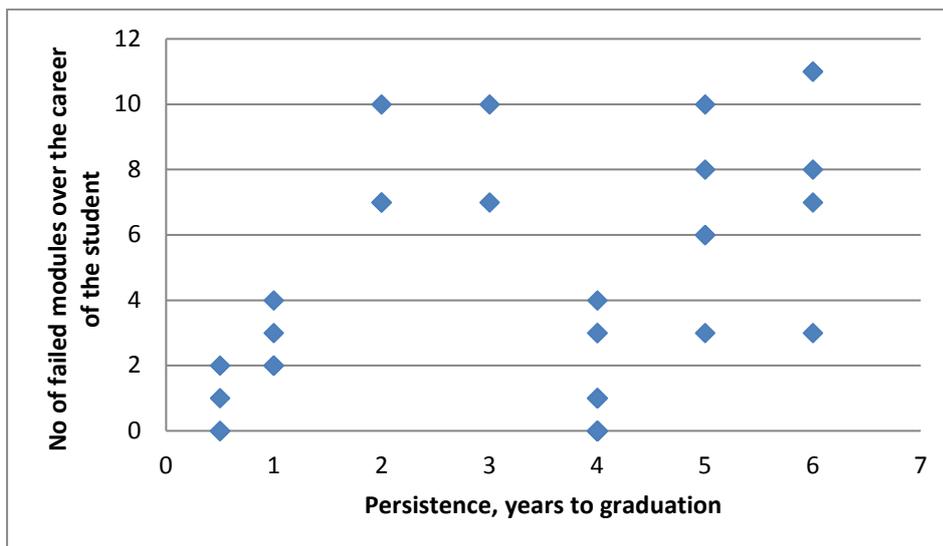


Figure 11: Failure, persistence and graduation rates

When measuring success by throughput however, for this first year Geography module, only 22 of the original 41 students passed, which is a throughput rate of only 56.66 per cent. As for graduating, some 24 of the 41 students went on to graduate (a throughput of 58.5%). However, in order to achieve graduation, five students (12.2%) switched to another degree (BA) or national diploma. Another five also switched qualifications but subsequently either dropped out or were academically excluded. Of those who did graduate, most did within the allotted four years. Some however took up to six years to complete the four year degree. Thus, it may be that reasons for failure or success at university are complex. For example, for this particular class,

there appears to be a strong relationship between low incoming PTEEP scores and the propensity to drop out or be academically excluded. But, ability to persist and intrinsic motivation may also play a role. For example, there were five students who obtained between 40.7 per cent and 27.7 per cent (average 35.58%) on the incoming PTEEP test but all passed the module. Yet another seven who obtained incoming PTEEP test scores of between 46.3 per cent and 28.8 per cent (average 37.6%) all failed the module. Thus, admission to a four year degree cannot rely on PTEEP scores alone. Personal motivation and personal career ambitions may need exploration. Universities may wish to consider the use of a biographical questionnaire along with in-depth professional career counselling.

## **CONCLUSION**

The case study supports several findings by the University of Cape Town's AARP (AARP Annual Reports 2003, 2004 and 2005). Firstly, good performance on PTEEP is strongly associated with academic success, graduation rates and overall academic performance. Secondly, the PTEEP score is more likely to predict how ESL students hailing from poor schools will perform academically than their English matriculation scores. Thus, proficiency in the language of teaching and learning strongly influences academic performance. Thirdly, the use of the PTEEP at the start and end of the academic year demonstrated that the extended time, which allowed for the academic literacy intervention to take place, was worthwhile; with the most disadvantaged students benefitting the most. However, even with a four year degree and a carefully constructed first year academic intervention, there still remained 'at risk' students. These 'at risk' students are often from poorly resourced schools, wrote ESL for matric, and are male. Overall, a four year degree with a structured academic intervention can help increase access and success, as none of these students would have been admitted to the three year BSc programme. But this change alone will not solve the graduation rate and throughput rate problems universities face.

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**NOTE**

1 At least not at UJ, they may have enrolled at a different university.

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