

CHAPTER SIX

RESULTS AND DISCUSSION

The present study has as its general aim to measure the validity of the PTEEP language proficiency test, a measure of academic literacy, as a predictor of the University of Witwatersrand Humanity students' academic success. More specifically, however, the focus of this study is on describing what an academic literacy profile of students in the Wits Faculty of Humanities looks like. The study further aims to assess whether there is a significant relationship between the PTEEP language proficiency test, and the prediction of academic success. Lastly, it aims to evaluate what contribution cognitive developmental theory can make to the present study's findings.

Due to the descriptive and exploratory nature of this study it seems logical to combine the results and discussion of the present study into the same chapter. This chapter will be divided into three different parts, each addressing the research questions more specifically. The first part will describe what the cohort of students used in this study looks like. The second part will look at the relationship between the PTEEP and academic success as well as if any significant relationship between the PTEEP and any particular degree exists. The last part of this chapter deals with cognitive developmental theory and the role it may play when looking at access testing and the prediction of academic success. The data will be reported by means of frequency tables and correlational tables. Graphs will also be used, where possible, to illustrate findings.

6.1. Academic Literacy profile of students in the Wits Faculty of Humanities

The first research question was to describe what the academic literacy profile of students from the Wits Faculty of Humanities looked like. In this subsection the demographic/biographical details as well as the results of the total sample's scores will be reported.

In the methodology chapter (Chapter 5) of the present study, a breakdown of the sample with regards to their age and gender was given. In summary, however, the mean age for the total sample was 20.8years, while the gender breakdown was 54% female and 46% male. The following table (Table 3) describes the breakdown of students in the present sample into degree and degree codes that they had registered for in 2004 within the Faculty of Humanities.

Table 3
Degree breakdown of students

Degree	Degree Code	Number	Percentage
Bachelor of Arts (4 yrs)	AB002	36	57.1
Bachelor of Arts (3 yrs)	AB000	6	9.5
Bachelor of Arts in Dramatic Art (5 yrs)	AF800	4	6.3
Bachelor of Arts in Social Work (4 yrs)	AF400	4	6.3
Bachelor of Arts in Social Work (5 yrs)	AF401	3	4.8
Bachelor of Arts	AB001	3	4.8
Bachelor of Music	AF501	2	3.2
Bachelor of Arts in Dramatic Art	AF100	2	3.2
		63	100

Owing to the very small numbers in most of the degrees, compared to Bachelor of Arts (4 years) – AB002, it was not possible to conduct extensive statistical analysis with the registered degree as a variable. However, some significant information was obtained by looking at the breakdown of the degrees in relation to the overall PTEEP score and the final results, and will be reported on further on in this section. The numbers of students used in the sample of this study was small as strict rules were applied with regards to the quality of the data.

Analysing the overall PTEEP scores in more detail, however, more than half (60.32%) of the students in the present sample seemed to score between 40 and 59%. A categorization of how students in this sample scored overall for the PTEEP as well as an interpretation of what the overall PTEEP scores mean follows in Table 4.

Table 4

Interpretation of overall PTEEP score

PTEEP score	Number of students	Percentage of sample	Interpretation
≥ 60%	7	11.11%	Not necessarily at risk in the academic environment because of language-related difficulties, it is less likely that language-related problems per se are the cause.
50 – 59%	20	31.75%	
40 – 49%	18	28.57%	The academic performance of these students is likely to be affected by language-related difficulties. However, these difficulties are not so severe as to necessitate placement onto a foundation or extended programme. For these students, extra tutorials or workshops might be sufficient. They are the group most likely to benefit from an English for Academic Purposes (EAP) type course.

20 – 29%	6	9.52%	These students will be at serious risk in an English-medium academic environment. They should be placed on some kind of extended foundational programme.
≤ 20%	0	0	These students are highly unlikely to succeed in an English medium academic environment. They will need extensive and ongoing support.
Total = 63		100%	

(Description and interpretation of categories extracted from Cliff, 2003).

The highest PTEEP score achieved was 74.9% and the lowest was 24% with an overall mean of 46.96% for this sample. Thus it can be said that the majority of the students of this sample fell within the 40% + category, a mixture of students who are not necessarily at risk in the academic environment because of language-related difficulties and students who might be affected by language related difficulties, but not so severely that they require placement onto a foundation or extended programme. However, according to Cliff (2003), below 50% on the PTEEP test is considered underprepared in terms of achievement factors. This would then mean that only 42.86% of this sample may be considered “prepared” in terms of achievement factors. In summary, this table describes where the students fall in terms of “preparedness” for higher education studies by looking at the overall PTEEP results, which do not look very promising. Breaking down the students overall PTEEP results into the PTEEP clusters, however, could be more helpful in terms of indicating where the stronger and/or weaker areas lie for this sample of students and predicting academic success. Figure 2 depicts the students’ overall mean performance on each of the PTEEP clusters. In addition the figure shows that the mean performance of students in this

sample on their overall PTEEP score is 47.46%, and also that the mean calculated from the breakdown of the students subjects at the end of their first year, that is, their overall first year final exam score is 51.6%.

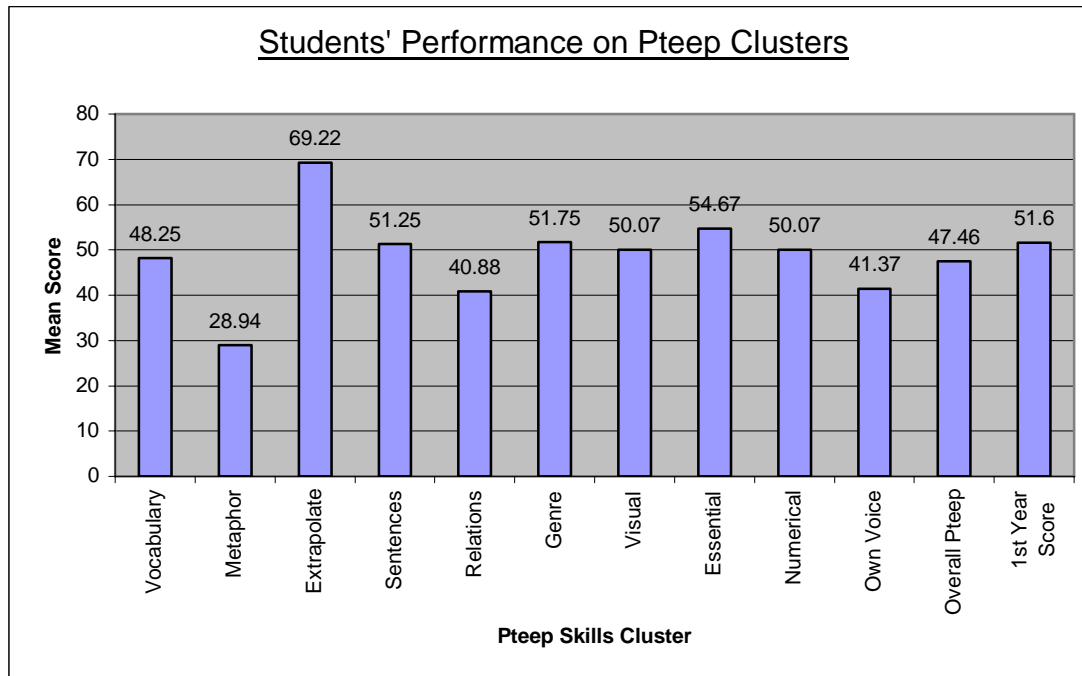


Figure 2

From Figure 2 above, it is evident that students generally scored highest in the Extrapolate cluster and lowest in the Metaphor cluster. Most of the other clusters showed mean scores that ranged between 40.88% and 54.67%. The Extrapolate Cluster measures the students' capacities to draw conclusions and apply insights, either on the basis of what is stated in texts or is implied by these texts. When comparing this skill to cognitive developmental theory in the young adult, this skill does not seem like an advanced cognitive skill developed in adulthood, however, it seems to fit neatly with the ability to use abstraction which is a skill, according to Piaget (1978), that is developed in adolescence.

The skill of metaphorical expression is described as the students' abilities to understand and work with metaphor in language. This includes their capacity to perceive language connotation, word play, ambiguity, idiomatic expressions, and so on (Yeld, 2003). In this description it implies that the

student would have to have a good knowledge of English as a language (as the PTEEP test is in English), to be able to understand and work with metaphor in language. This might provide one of the reasons why this cluster (Metaphor) has the lowest mean performance compared to the other clusters, as the students in the present study do not all have English as their first language. The home language of each student in the present study is not known, as it was not a variable in the present study, however, it might be useful in future research to examine this as a variable. Furthermore, the ability to understand and work with metaphor in language seems like a higher order cognitive ability, and may not yet have developed in the present sample.

Table 5 provides a range of scores for the present sample based on Figure 2 above for the PTEEP clusters, overall PTEEP score and first year overall academic score.

Table 5

PTEEP Scores and 1st Year Academic score for whole sample (N=63)

	Mean	Std. Deviation	Minimum	Maximum
Vocabulary	48.25	19.72	10.0	90.0
Metaphor	28.94	15.18	0.00	69.2
Extrapolate	69.22	11.63	27.8	88.9
Sentences	51.25	20.98	10.7	89.3
Relations	40.88	17.29	2.2	80.0
Genre	51.75	23.18	0.00	100.0
Visual	50.07	19.24	0.00	81.8
Essential	54.67	12.40	29.2	79.2
Numerical	50.07	19.24	0.00	81.8
Own Voice	41.37	22.63	0.00	78.0
Overall PTEEP	47.46	12.39	24.0	74.9
1 st Year Score	51.60	12.69	0.00	69.25

As mentioned before, the mean overall PTEEP score for the students in this sample is 47.46%, falling within the “underprepared” range in terms of achievement factors. The mean of students’ final marks for their first year in their respective courses is 51.60%. This falls within the range of academic success as it was defined for this study (mark above 50%). Therefore analysing the data descriptively, the students in the present study’s sample can on average be described as successful. However, inferential statistics carried out in the next section of this chapter suggests something different when looking at the statistical relationship between the PTEEP overall results and academic success.

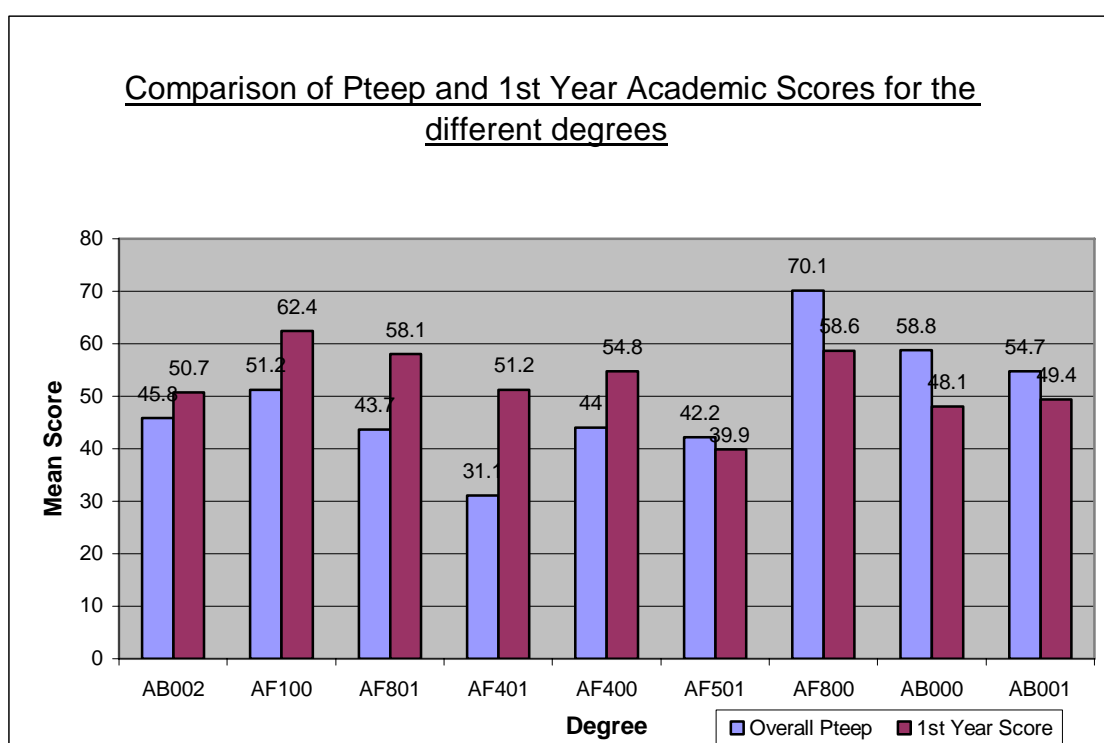


Figure 3

In Figure 3, a breakdown of the overall PTEEP scores and the overall final first year results are given for each of the degrees. Looking at these results descriptively students who obtained the highest mean scores (70.1%) overall for the PTEEP test are registered for Bachelor of Arts in Dramatic Art (5 yrs) – course code AF800, while students who obtained the lowest mean overall PTEEP scores (31.1%) registered for Bachelor of Arts in Social Work (5 yrs) – course code AF401. Fortunately, this degree, AF401, is an extended

programme for the conventional 4 year Social Work degree, giving them more time to develop the necessary skills.

Students' obtained the highest mean first year final score (62.4%) in the Bachelor of Arts in Fine Arts (AF100) degree. Interestingly this group of students also on average obtained an overall PTEEP score of 51.2%, which is considered "prepared" in terms of achievement factors, according to Cliff (2003).

Students' obtained the lowest mean first year academic score (48.1%) for the Bachelor of Arts (3 yrs) degree, despite having a mean overall PTEEP score of above 50% (in this case 58.8%) and being considered "prepared" in terms of academic factors.

This section of the results chapter addressed the research question of describing what this cohort looks like in terms of their gender, age, degree, overall PTEEP score as well as their final first year average marks. However, from all the information above it is not clear whether there is any relationship between these variables (gender, degree, overall PTEEP score, individual PTEEP clusters and overall first year scores), and if a relationship exists what the exact nature of this relationship is. More specifically, it is not clear whether the PTEEP academic literacy test predicts academic success, and if so, the extent to which it does so. The next section in this chapter thus addresses the second research aim of this study, that is, whether the PTEEP language proficiency test, utilised as part of the alternative admission procedure in the Wits Faculty of Humanities, predicts academic success, and if so to what extent.

6.2. The relationship between academic literacy (PTEEP) and academic success

In this section of the chapter the relationship between academic literacy and academic success is addressed. As mentioned in earlier chapters, PTEEP is a measure used to assess academic literacy which is made up of language

and cognition. In order to address this question the use of correlation tables and regression analysis will be made.

Table 6 contains results of the pair wise comparisons showing where differences between groups lay. For example, it was found that the mean Overall PTEEP score was different for the different degrees.

Table 6

Table of Multiple Comparisons for Overall PTEEP score

Dependent Variable	(I) Degree	(J) Degree	Mean Difference (I-J)	Std. Error	p-value
Overall					
PTEEP	AF401	AF800	-39.0130*	9.9847	.009
		AB000	-27.7467*	7.7341	.026
Metaphor	AB002	AF100	-37.6068*	9.5431	.008
		AF800	-19.6581*	5.7924	.047
Genre	AB002	AF100	-34.4444*	4.0325	.374
Own Voice	AF401	AF800	-74.3333*	18.4749	.005
		AB000	-53.0000*	14.3106	.014

*The mean difference is significant at the 0.05 level.

The results in Table 6 suggest that the average overall PTEEP scores for the students registered for Bachelor of Arts in Social Work (5 yrs) – AF401 was significantly less than those obtained by students registered for Bachelor of Arts in Dramatic Art (5 yrs) – AF800 and Bachelor of Arts (3 yrs) – AB000 respectively. It seems sensible that the Bachelor of Arts in Social Work (5 yrs) – AF401 students', overall PTEEP scores were significantly less than those obtained by students registered for Bachelor of Arts in Dramatic Art (5 yrs) –

AF800 and Bachelor of Arts (3 yrs) – AB000 respectively, as AF401 is an extended curriculum, compared to the conventional 4yr Social Work degree. Students who perform below 50% on the PTEEP test (more specifically, 30-49%), would benefit from foundation courses, and extended programmes (Cliff, 2003).

In the next table, Table 7, further analysis was done in terms of another variable, that is, gender. Table 7 contains summary statistics for the different scores broken down by gender. The table also contains t-test results for assessing whether the mean scores (overall PTEEP, PTEEP clusters as well as first year scores) for male and female students were statistically significant.

Table 7

Summary statistics for mean scores by gender

	Gender	N	Mean	Mean Difference	Std. Deviation	t	df	p-value
Overall	Male	29	48.835	2.5480	13.4357	.811	61	.420
PTEEP	Female	34	46.287		11.5036			
Vocabulary	Male	29	51.379	5.7911	20.6543	1.165	61	.248
	Female	34	45.588		18.7796			
Metaphor	Male	29	30.769	3.3937	17.3229	.883	61	.381
	Female	34	27.376		13.1461			
Extrapolate	Male	29	70.881	3.0708	8.8659	1.045	61	.300
	Female	34	67.810		13.5241			
Sentences	Male	29	51.970	1.3402	20.1259	.251	61	.803
	Female	34	50.630		21.9713			
Relations	Male	29	41.839	1.7737	16.6727	.403	61	.688
	Female	34	40.065		18.0160			

Genre	Male	29	55.172	6.3489	20.4626	1.085	61	.282
	Female	34	48.824		25.1980			
Visual	Male	29	50.470	.7376	22.7385	.150	61	.881
	Female	34	49.733		16.0195			
				Mean	Std.			p-
	Gender	N	Mean	Difference	Deviation	t	df	value
Essential	Male	29	55.795	2.0777	11.9308	.660	61	.512
	Female	34	53.717		12.8833			
Numerical	Male	29	50.470	.7376	22.7385	.150	61	.881
	Female	34	49.733		16.0195			
Own Voice	Male	29	42.138	1.4320	24.6978	.248	61	.805
	Female	34	40.706		21.0678			
1st Year Score	Male	29	51.883	0.529	11.156	.16	61	.871
	Female	34	51.354		14.036			

From Table 7 above it can be seen that all the male results are higher than all the female scores. However, even though the means for the different scores do differ for males and females, the differences are not statistically significant (in all cases, $p > 0.05$). Thus it appears that gender as a variable does not play a role in the overall PTEEP score, nor the prediction of academic success for this sample, as no significantly different results was found.

In the next table of correlations, Table 8, Pearson Product-Moment Correlation Coefficients are calculated to measure the strength and direction of the relationship between the PTEEP scores and the first year academic scores. This assesses the crux of the current research question, that is, whether the PTEEP academic literacy test is related to academic success, and if so to what extent. Correlations are all significant at the 0.05 level.