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Does Mass-Franchising of University Programs Interfere with Achieving Higher Education Expectations?

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Abstract

While partner providers have enabled developed country universities to greatly leverage the returns to their programs, in any franchised system, quality can be a fundamental risk. Thus it is important to examine whether a heavily franchised university program is able to provide expected education outcomes. There is a growing public concern that such leverage may inhibit academic excellence. In this study, we review this issue with a mixed-methods approach that examines and contrasts student perceptions of their *a priori* expectations of their higher-education studies in Australia with their perceptions of the processes and quality of the education they have and are actually receiving. This study shows that, among other things, students: a) desire a high-quality education, provided by experts who can guide them in challenging subjects with a minimum amount effort by the student; b) were generally satisfied with their education, but that c) many were having difficulty adjusting to academia and/or (for foreign students) to Australia. It is suggested that higher education institutions extend their performance reviews from the teacher-student nexus to include other areas and services which can help their students adjust to changing circumstances.

Keywords

Higher education, student perceptions, expectations, experience, Australia

Introduction

This paper considers the *service-end* of HE institutions, where academics and students meet and teaching/learning is supposed to occur. This examination of how well an Australian regional university and the partner providers it franchises are able to provide their students with the education outcomes they expect flows into the larger question of how well are student needs being served by heavily-franchised university programs.

Partner-campus providers are increasingly vital to the viability of HE institutions in developed countries (DCs). Rapid globalisation increases the desire of young adults in developing countries for access to world-class education. In recent decades, many DC universities saw this rising demand as a blue-skies means to enhance their world presence, raise revenues and cross-subsidise other areas of their operations. Opening campuses in developing countries was seen by DC Universities as a high-risk, costly way to export degrees to developing-country students. As a result, more cost-effective ways were sought and *fast and furious* evolution in HE-export delivery approaches involves the foreign or domestic campus of a *partner provider* institution being franchised to deliver the HE courses of the franchisor university. In particular, *domestic partner providers* enhance the ability of regional universities to *export* their degree programs to foreign students who want to live in the major cities of a DC. Such partner providers also enable large universities to extend the *export* of their degree programs into the capital cities of the other states/provinces of their country.

While partner providers have enabled DC universities to greatly leverage the returns to their programs, there is a growing perception that rapidly increasing university partner franchises may reduce HE quality.

What is excellence in education?

Almost all DCs are spending large and increasing amounts on education (Hettihewa and Wright, 2012), but (as Ripley, 2013 asserts) not all DCs are doing equally well in educating their students. Specifically, Ripley (2013) notes that teaching is often more focused on training students to memorize material for exams than to critically apply what they are learning to problem-solving. It is vital to note that employers have little use for the former if graduates cannot apply it to the latter. This issue is many generations old, as evidenced by a plethora of maxim, including: 'A man has only as much knowledge as he puts into action' (St. Francis of Assisi, cc1182-1226, published in 1898); 'A Wise Man makes what he learns his own, 'tother shows he's but a Copy, or a Collection at most' (Penn, 1682); 'Information is not knowledge' (attributed to Albert Einstein), and 'Educated people are not those who know everything, but rather those who know where to find, at a moment's notice, the information they desire' (The Expositor and Current Anecdotes, 1914).

Thus, excellence in business education can be defined as: helping students attain the ability to identify an issue/problem to rapidly (and at a low cost) acquire and apply the knowledge needed to resolve the issue/problem.

Hettihewa and Wright (2012) found that 'the vast majority of responding [HE] academics [in the business schools] strongly agree or agree that the quality of education has fallen over the past decades, continues to fall, and should rise...' They, also, found that 'the vast

majority of responding [HE] academics *strongly agree* or *agree* that student academic outcomes are diminished by *non-academic commitments* and *quality issues with entry-level students...* However, even if this perceived decline in education quality and of incoming students reflects reality, it is contradicted by HE institutions, countries, and academic disciplines that continue to display excellence. Ripley (2013, p.2) provides new insight into this issue by defining the real mystery in education as: 'Why were some kids learning so much—and others so little?' Ripley's (2013, p.2) conclusion that *students succeed in classrooms where they are expected to succeed* suggests that important insights on quality and outcomes issues in education may arise from an analysis of student expectations and perceptions of the education they are receiving and of their role and obligations in that education.

Research design

The notion that students succeed in classrooms where they are expected to succeed focuses mostly on the behaviour, actions, and performance of lecturers and, as such, misses the other half of the teaching/learning nexus (i.e. students). Performance measures that consider only half of what is happening can be not only *hit-and miss* but may also have perverse outcomes.

This study examines and contrasts student perceptions of their *a priori* expectations of their HE studies in Australia with their perceptions of the processes and quality of the education they have and are actually receiving. A mixed-methods approach is used where the:

- Qualitative portion draws from extant studies to outline the theory and earlier findings as to how students will be affected by the franchising of public university courses.
- Quantitative/empirical portion draws on the results of a questionnaire (92 questions) answered by 249 students for an effective response rate of 31 percent of the surveyed students at the University of Ballarat and its partner providers.

The survey questionnaires were sent to lecturers for distribution to students in their classes and completed questionnaires were mailed back to the researchers, using the postage-paid, pre-addressed envelopes.

What Do Students Studying in Tertiary Education Say?

As noted in the foregoing section, a questionnaire with 92 questions was distributed to 803 students at six HE institutions (across 10 campuses). The response rate was 31.0 percent and 35 of the 92 questions (See Table 1) are used in this study. The other 57 questions provide background, future research and/or cross-validation of answers.

A visual inspection of the questionnaire responses reveals the following:

Student expectations

The responses to questions 2.03c, e, and f (see Table A1) show that the percent of responders ranking the following expected outcomes as very important or important and not important and unimportant was:

Table 1: Student key expectations from higher education, in order of importance

Expectation			Important	Not, Unimportant, & n.a.
•	β_9	Developing Talents	88.62	3.25
•	β_{11}	Improving employment/career prospects	85.77	4.88
•	β_{10}	Help getting Australian permanent residence	69.14	15.44

It is to be expected that business students want their degree to develop their abilities and career prospects. However, that nearly 70 percent of the responding students expect that a degree will help them get Australian permanent residence suggests that a great majority of the students at this regional university and its big-city partner providers are not Australian residents and that the university and its partner providers are profoundly reliant on the on-shore export of education. Further, should the Australian immigration rules tighten, it is likely that these institutions will find themselves in the same serious financial strife that many of the Australian Technical and Further Education institutions (TAFEs) and Registered Training Organisations (RTOs) experienced when many of the qualifications that they were offering were removed from the immigration preference list.

Gender mix

The gender mix (question 1.05) of the respondents (female to male ratio of 45.71:54.29) was surprising, given that SPRE (2012, p.6) found that among Australian residents completing an undergraduate business studies in 2011, the participation ratio was 51:49 or. However, Booth and Kee (2010) suggest that among foreign students studying in Australia, there are slightly more males than females. Thus, having roughly 70 percent of the students responding to this questionnaire being non-residents is consistent with the female-to-male participation rate being significantly lower than the national average female participation in Australian HE among domestic students.

Paying for higher-education

The majority (69.01 percent) of higher-education fees are paid by parent or other family members (question 1.12). The majority of students (59.44 percent, per question 2.01) are dependent on their parents or other family to pay their living expenses and just under a third are paying their own way via Australian employment. These outcomes were surprising, given that (per question 1.02) 58.2 percent of the students are studying fulltime, but have part-time employment.

Higher Education is mostly about the young:

Only 10.61 percent of the students are over the age of 30 years and 62.04 percent are between the ages of 16 and 25 years (inclusive). This suggests that these institutions may be missing a potentially huge demographic market; that of middle-aged workers who need and/or want to retrain or to otherwise upgrade their skills and knowledge to better keep pace with a rapidly changing world.

Domestic arrangement

While only 14.22 percent of the students seem dissatisfied with their living arrangements (question 2.04e), well over half (55.51 percent) must commute over 30 minutes (question 1.11) from their residence to their educational institution and that commute (twice a day) must be costly and chew into their study time.

Student satisfaction with the quality of their education

Questions 2.02h and 2.03c, e, & f indicate that the responding students had high expectations of the University of Ballarat and its partner providers. The responses to questions 3.02, 3.05, 3.06, 2.04b, and 3.08b, d, & e indicate that students are generally satisfied with the quality of education that is provided to them. There are a few sour notes that need to be considered by the institutions. Specifically, Table 2:

- Items (a) and (b) indicate that responding students want more challenging material, less than half of them feel they are being taught to a high standard, and
- Items (c) to (g) suggest that the HE institutions may need to do more to help their foreign students adjust to the new and often demanding cultures of academia and/or Australia.

The first point, above or (items (a) and (b) in Table 2), is consistent with the findings of Bretaga et al. (2013, p.1) that students want “Australian universities ... to move beyond the mere provision of information to ensure a holistic approach that engages students about academic integrity.”

Table 2: Student concerns of the quality of instruction

Expectation			Agree
a.	β_{15}	I prefer more challenging and constructive teaching material	61.64
b.	β_{20}	Lectures given by teaching staff are generally of a high standard	45.09
c.	β_{21}	I expected a more educational culture with more facilities to interact with students	72.02
Expectation			Successful
d.	β_{25}	Adjusting to the academic demands of the University of Ballarat	46.70
e.	β_{27}	Feeling a part of the university	45.51
f.	β_{28}	Adjusting to life in Australia	53.53
g.	β_{29}	Adjusting to using the English language for study purposes	55.38

Student academic performance

Given that these institutions cannot always attract the top students, the grade distribution in Table 3 (derived from responses to Question 3.01) is distressingly optimistic.

Table 3: Distribution of the grades given by students

High Distinction	Distinction	Credit	Pass	M. Fail	Fail
5.26	43.72	40.49	8.91	0.81	0.81

However, rather than suggesting an issue grade inflation, the overly optimistic distribution in Table 3 is likely due to a confluence of a number of factors, including:

- Poorly performing students self-selecting away from responding, and/or
- Responding students being overly optimistic in the assessment of their grades, and/or
- The current crop of students has a high percentage of mature students with more life experience than their younger colleagues.

Evidence for this last issue is seen in Table 4 where, in terms of the cross-sectional analysis, academic performance seems to initially improve with age, peaks in the 26 to 30 cohort and

declines slowly after that age. This suggests that both younger (16-22) and older (after 40 years old) students may need additional help to adapt to university life and requirements.

Table 4: Cross-tabulation of grade distribution with the age of the students

Age in	High	Distinction	Credit	Pass	Marginal Fail	Fail	Total
All	5.26 %	43.72 %	40.49 %	8.91 %	0.81 %	0.81 %	100.00 %
16 to	1.79	42.85	41.07	12.50	1.79	0.00	100.00
23 to	4.21	47.37	36.84	9.47	0.00	2.11	100.00
26 to	10.61	37.88	42.41	7.58	1.52	0.00	100.00
31 to	8.00	36.00	56.00	0.00	0.00	0.00	100.00
> 40	0.00	0.00	0.00	100.00	0.00	0.00	100.00

Statistical Analysis

The following relationships were examined using linear regression on SPSS. The variables in the following general functions are defined in Table A1 in Appendix A and the regression results are given in Table A2 of that same Appendix.

$$Y_1 = \alpha_1 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \beta_{15} X_{15} + \beta_{16} X_{16} + \beta_{17} X_{17} + \beta_{18} X_{18} + \beta_{19} X_{19} + \beta_{20} X_{20} + \beta_{21} X_{21} + \beta_{22} X_{22} + \beta_{23} X_{23} + \beta_{24} X_{24} + \beta_{25} X_{25} + \beta_{26} X_{26} + \beta_{27} X_{27} + \beta_{28} X_{28} + \beta_{29} X_{29} + \beta_{30} X_{30} + \epsilon \quad (1)$$

$$Y_2 = \alpha_2 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \beta_{15} X_{15} + \beta_{16} X_{16} + \beta_{17} X_{17} + \beta_{18} X_{18} + \beta_{19} X_{19} + \beta_{20} X_{20} + \beta_{21} X_{21} + \beta_{22} X_{22} + \beta_{23} X_{23} + \beta_{24} X_{24} + \beta_{25} X_{25} + \beta_{26} X_{26} + \beta_{27} X_{27} + \beta_{28} X_{28} + \beta_{29} X_{29} + \epsilon \quad (2)$$

$$Y_3 = \alpha_4 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \beta_{15} X_{15} + \beta_{16} X_{16} + \beta_{17} X_{17} + \beta_{18} X_{18} + \beta_{19} X_{19} + \beta_{20} X_{20} + \epsilon \quad (3)$$

Equation 1 considers what student attributes affect their opinion of the level of difficulty of and value of class assignments. Its fit is excellent with the risk of coincidence creating the associate being estimated at 0.000 and the Pseudo R² being 0.294. Seven variables in equation 1 are significant at the 10 percent level or better. The first variable suggests that while older students can do better than their younger colleagues (Table 4), that improved performance may be because they perceive the course content as being more difficult and put in a corresponding greater study effort.

Table 5a: Summary of the statistically significant variables in regression equation (2)

Independent Variable/Description			Perceived Course Level of Difficulty
• Q1.04	β_2	Age	Varies with perceived course difficulty
• Q1.05	β_3	Gender	Females more likely to consider courses difficult
• Q2.02h	β_8	UB reputation important	Varies with perceived course difficulty
• Q3.08b	β_{17}	Quality of teaching style	Varies with perceived course difficulty
• Q3.10b	β_{25}	Having poor study skills	Varies inversely with perceived course difficulty
• Q3.10d	β_{27}	Having poor exam marks	Varies with perceived course difficulty
• Q3.10k	β_{30}	Not feeling part of UB	Varies inversely with perceived course difficulty

It is interesting that students who feel they have poorer study skills feel that the courses are not as difficult as those who have better study skills feel.

Equation 2 considers what student attributes affect their opinion of the quality of the course content. Its fit is excellent with the risk of coincidence creating the associate being estimated at 0.000 and the Pseudo R² being a robust 0.572.

Table 5b: Summary of the statistically significant variables in regression equation (2)

Independent Variable/Description			Perception of Course Quality Being Poor
● Q1.05	β_3	Gender	Females likely to consider courses to be good quality
● Q1.06	D	From: 1) Australia; 2) Other Country	Australians consider course good quality is good
● Q2.02i	β_9	UB location is unimportant	Varies inversely with perceived poor quality
● Q2.03c	β_1 ₀	Developing talents is unimportant	Varies with perceived poor quality
● Q2.04b	β_1 ₃	Staff helpful in 1 st week	Varies with perceived poor quality
● Q3.07	β_1 ₅	Post-grad course < Undergrad course	Varies with perceived poor quality
● Q3.08a	β_1 ₇	Want < challenging course material	Varies inversely with perceived poor quality
● Q3.08e	β_1 ₉	Textbook std of knowledge is poor	Varies with perceived poor quality
● Q3.08j	β_2 ₀	Study guide is unimportant	Varies with perceived poor quality
● Q3.08k	β_2 ₁	Lectures generally of a poor standard	Varies with perceived poor quality
● Q3.10a	β_2 ₄	Understanding what is expected	Varies with perceived poor quality
● Q3.10b	β_2 ₅	Developing study skills	Varies inversely with perceived poor quality

† The dummy variable was transformed from numbers 1 and 2 to, respectively, numbers 0 and 1 for the statistical analysis.

Table 5b suggests that when students are choosing UB or one of its partner providers, UB's reputation and the convenience of its location and that of its partner providers are important. Further, students expect to develop skills and talents from their education and will think badly of the courses if they are not sufficiently challenging and/or not well taught.

Equation 3 considers what student attributes affect how well their grade achievements matched their *a priori* expectations. Its fit is excellent with the risk of coincidence creating the associate being estimated at 0.000 and the Pseudo R² being a weak but still acceptable 0.190.

Table 5c: Summary of the statistically significant variables in regression equation (3)

Independent Variable/Description			Grade Expectations not Met
● Q1.04	β_2	Age	Varies inversely with expectations not being met
● Q1.05	β_3	Gender	Females likely to consider their expectations not met
● Q1.12	β_6	Who paid course fees	Varies inversely with expectations not being met
● Q2.03c	β_{10}	Dev eloping talents is unimportant	Varies with expectations not being met
● Q2.03f	β_{12}	Career prospects are unimportant	Varies with expectations not being met
● Q3.08j	β_{20}	Study guide is important	Varies with expectations not being met

Younger students and female students are more likely to feel that their grade expectations have been met than older male students. When the parents of students are paying the tuition, students appear to be less worried over expected grades. Students who are more

career-focused appear to be more worried over expected grades. Students who are less likely to use the study guide appear to be less worried over expected grades.

Conclusions

Based on the expectations and needs of employers and students, excellence in business education should be evidenced by graduates attaining the ability to identify and define an issue/problem, to rapidly (and at a low cost) acquire and apply the knowledge/information needed to resolve the issue/problem.

Students studying at UB and its partner providers appear to mostly be satisfied with how their education is progressing and their expectations are mostly being met. However, five areas of concern became apparent in the review of the survey responses.

- 1) Nearly two-thirds of respondents would prefer more challenging and constructive teaching material,
- 2) Only 45 percent of respondents feel that teaching staff are generally of a high standard,
- 3) Over 72 percent of respondents would like to see enhancements to the educational culture—including a more interactive environment,
- 4) Many of the students appear to be having trouble adjusting to and fitting into their environment—this can be a very serious issue, given that around two-thirds of respondents appear to be foreign students who are young and far from home, familiar places and support groups,
- 5) Both younger (16-22) and older (after 40 years old) students may need additional help to adapt to university life and requirements

This study suggests that higher-education institutions may need to extend their performance reviews from the teacher-student nexus to include other areas in which they can help their students adjust and adapt to changing circumstances, so that the students can better focus on learning.

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Biographical Notes

Dr Samantha Hettihewa has a PhD from the University of New Hampshire, USA, and a Post Grad. Dipl. (Applied Finance) from SIA Australia. She is a senior fellow in FINSIA, a Chartered Financial Analyst (CFA), and a Financial Planner Australia (FPA). She has served in various postings at six universities across four countries. She is extensively published and has written a number of texts that are published by top publishers. She has research interests in finance, small business management, business ethics and corporate governance.

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References

Assisi, F. (1898). *Speculum Perfectionis*, Fischbacher, Paris.

Bretaga, T., Mahmuda, S., Wallaceb, M., Walkerb, R., McGowanc, U., Eastd, J., Greena, M., Partridge, L., & Jamesf, C. (2013) 'Teach us how to do it properly!' An Australian academic integrity student survey, *Studies in Higher Education*. Retrieved from: <http://www.tandfonline.com/doi/abs/10.1080/03075079.2013.777406#.UjJgV9LI3it>.

Booth, A.L., & Kee, H.J. (2010) A Long-Run View of the University Gender Gap in Australia. Discussion Paper No. 4916, The Institute for the Study of Labor (IZA), Bonn, Germany. Retrieved from: http://www.melbourneinstitute.com/downloads/hilda/Bibliography/Working+Discussion+Research+Papers/2010/Booth_etal_Long_Run_View.pdf.

Hettihewa, S., & Wright, C.S. 2012. Tertiary-education-quality perceptions in developed countries, during and after a half-century of internal evaluations. *Studies in Learning Evaluation Innovation and Development*, 9(1), 84-96.

Penn, W. (1682). *Fruits of Solitude*, re-published in: editor C.W. Eliot, *The Harvard Classics* (1909-1914).

Ripley, A. (2013). *The Smartest Kids in the World: And How They Got That Way*. Simon & Schuster, London.

SPRE. (2012). *The Gender Agenda: Gender Differences in Australian Higher Education*. Strategy Policy and Research in Education Pty Ltd (SPRE). Sydney, NSW, Australia, Retrieved from <http://www.spre.com.au/download/SPREGenderAgenda2012.pdf>

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Appendix A: Table A1: Responses to Selected Questions in the L&T Questionnaire

I.		Dependent Variables:	1	2	3	4	5	6	Total
	Y ₁	UB course content: 1) Too lenient; 2) Lenient; 3) Moderate; 4) Difficult; 5) Too Difficult.	0.41	8.64	72.8	15.6	2.47	n.a.	100.0 %
	Y ₂	Academic tasks and assignments set for the subjects are challenging and help improve my knowledge: 1) Strongly agree; 2) Agree; 3) Neutral; 4) Disagree; 5) Strongly disagree.	21.1 0	46.4 1	27.8 5	3.80	0.84	n.a.	100.0 %
	Y ₃	Would you classify your grades to reflect a level of: 1) High distinction; 2) Distinction; 3) Credit; 4) Pass; 5) Marginal fail; 6) Fail.	5.26	43.7 1	40.4 8	8.91	0.81	0.81	100.0 %
	Y ₄	Given your expectations at the start of the program, are your grades: 1) Higher? 2) About the same? or 3) Lower?	28.2 8	52.8 7	18.4 4	n.a.	n.a.	0.41	100.0 %

II.		Independent Variables:	1	2	3	4	5	6	Total
	β ₁	1) Fulltime student with no employment, 2) Fulltime student with part-time employment, 3) Fulltime student with full-time employment 4) Part-time student with no employment, 5) Part-time student with part-time employment, or 6) Part-time student with full-time employment	33.60	58.20	0.00	2.05	6.15	0.00	100.0 %
	β ₂	Student Age: 1) 16 to 22 years of age; 2) 23 to 25 years of age; 3) 26 to 30 years of age; 4) 31 to 40 years of age; 5) Over 40 years of age	22.86	39.18	27.35	10.20	0.41	n.a.	100.0 %
	β ₃	Student Gender: 1) Male; 2) Female	54.29	45.71	n.a.	n.a.	n.a.	n.a.	100.0 %
	D	Country of Origin: 1) Australia; 2) Other Country	32.51	67.49	n.a.	n.a.	n.a.	n.a.	100.0 %
	β ₄	1 st semester living arrangements—lived : 1) with strangers; 2) alone; 3) with friends; 4) with relatives; 5) other	9.84	8.61	41.80	35.25	4.50	n.a.	100.0 %
	β ₅	Travel from home to classes: 1) < 15 minutes; 2) 15-30 minutes; 3) 30 minutes to 1 hour; 4) 1-2 hours; 5) Two hours or more	6.53	37.96	43.68	10.20	1.63	n.a.	100.0 %
	β ₆	Payment of university fees by: 1) Parents or other family member; 2) A bank or credit agency loan; 3) From Australian wages; 4) Scholarship, bursary, or government/employer loan; 5) Other	69.01	8.68	12.40	4.55	3.72	1.64	100.0 %
	β ₇	Please indicate the main source of income for living expenses: 1) Parents/family ; 2) Other relatives; 3) Scholarship, bursary, or government/employer loan; 4) Employment in Australia; 5) A bank or credit agency loan; 6) Other	56.22	3.22	4.82	32.53	1.61	1.61	100.0 %
	β ₈	Reputation of the University of Ballarat: 1) Very Important to 5) Unimportant; 6) Not Applicable	36.09	27.39	24.35	6.09	3.48	2.60	100.0 %
	β ₉	Location of the University of Ballarat	33.04	33.92	23.35	5.73	2.64	1.32	100.0 %
	β ₁₀	Developing my talents: 1) Very Important to 5) Unimportant; 6) Not Applicable	63.01	25.61	8.13	1.22	1.22	0.81	100.0 %
	β ₁₁	A program that will help me get Australian permanent residence	41.87	27.24	15.45	6.91	0.81	7.72	100.0 %
	β ₁₂	Improving my employment/career prospects	56.50	29.27	9.35	3.25	1.22	0.41	100.0 %
	β ₁₃	The staff were really helpful in the first week of my study: 1) Strongly agree; 2) Agree; 3) Neutral; 4) Disagree; 5) Strongly disagree	21.14	39.03	22.36	7.72	3.25	6.50	100.0 %
	β ₁₄	My living arrangement is satisfactory to perform well in my studies	20.73	31.31	27.64	6.10	0.81	13.41	100.0 %

II.		Independent Variables:	1	2	3	4	5	6	Total
	β_{15}	This post-graduate course content is high in standards, when compared to an undergraduate degree: 1) Strongly agree; 2) Agree; 3) Neutral (neither agree nor disagree); 4) Disagree; 5) Strongly disagree.	17.95	59.61	17.31	4.49	0.64	n.a.	100.0 %
	β_{16}	I prefer more challenging and constructive teaching material: 1) Strongly agree; 2) Agree; 3) Neutral; 4) Disagree; 5) Strongly disagree	14.29	47.35	30.20	6.94	1.22	n.a.	100.0 %
	β_{17}	The teaching style is approachable, useful, and respectful of me as an individual	15.51	42.04	24.90	17.14	0.41	n.a.	100.0 %
	β_{18}	Lecture notes were an essential guide for my studies at UB	25.00	45.90	22.95	4.92	1.23	n.a.	100.0 %
	β_{19}	The prescribed textbook correctly reflects the standards of knowledge I want to achieve in this course	19.09	51.46	24.48	3.73	1.24	n.a.	100.0 %
	β_{20}	I can manage without the Study Guide	6.94	16.73	24.08	43.68	8.57	n.a.	100.0 %
	β_{21}	Lectures given by teaching staff are generally of a high standard	11.48	33.61	32.37	16.80	5.74	n.a.	100.0 %
	β_{22}	I expected a more educational culture with more facilities to interact with students	26.34	45.68	24.69	1.23	2.06	n.a.	100.0 %
	β_{23}	I complete any assignments given by the lecturers on time; 1) never to 5) most of the time	6.67	10.83	10.83	11.67	60.00	n.a.	100.0 %
	β_{24}	Understanding what your teachers expect of you academically; 1) very unsuccessful to 5) very successful	4.90	17.96	25.71	38.37	13.06	n.a.	100.0 %
	β_{25}	Developing effective study skills	4.07	19.11	25.61	44.71	6.50	n.a.	100.0 %
	β_{26}	Adjusting to the academic demands of the University of Ballarat	6.61	18.18	28.51	42.57	4.13	n.a.	100.0 %
	β_{27}	Achieving good results in exams and other assignments	4.88	15.04	20.33	52.84	6.91	n.a.	100.0 %
	β_{28}	Feeling a part of the university	6.58	21.81	25.10	39.10	7.41	n.a.	100.0 %
	β_{29}	Adjusting to life in Australia	6.22	13.69	26.56	39.01	14.52	n.a.	100.0 %
	β_{30}	Adjusting to using the English language for study purposes	6.61	16.94	20.66	36.37	19.01	0.41	100.0 %

† The dummy variable was transformed from numbers 1 and 2 to, respectively, numbers 0 and 1 for the statistical analysis.

Appendix A: Table A2: Responses to Selected Questions in the L&T Questionnaire

Variable	Equation 1					Equation 2					Equation 3				
	Estimate	Std Error	Wald	df	Sig	Estimate	Std Error	Wald	df	Sig	Estimate	Std Error	Wald	df	Sig
α_1	✓	✓		✓	✓										
α_2						✓	✓		✓	✓					
α_4											✓	✓		✓	✓
β_1	0.232	0.261	0.792	1	0.373										
β_2	0.392	0.215	3.317	1	0.069	-0.250	0.209	1.423	1	0.233	-0.349**	0.144	5.895	1	0.014
β_3	0.831*	0.383	4.712	1	0.030	0.214	0.361	0.353	1	0.552	0.350	0.263	1.766	1	0.184
D						-1.017**	0.414	5.039	1	0.014					
β_4											0.212	0.133	2.550	1	0.110
β_5						0.160	0.236	0.005	1	0.945					
β_6						-0.280	0.206	1.846	1	0.174	0.257*	0.132	3.794	1	0.051
β_7						-0.021	0.132	0.024	1	0.876					
β_8	0.347*	0.181	3.668	1	0.054										
β_9	-0.235	0.197	1.428	1	0.232	-0.345*	0.176	3.844	1	0.050					
β_{10}						0.376	0.221	2.891	1	0.089	-0.769***	0.199	4.920	1	0.000
β_{11}											0.101	0.103	0.978	1	0.323
β_{12}											0.412*	0.181	5.177	1	0.023
β_{13}						0.331	0.177	3.473	1	0.062					
β_{14}						0.069	0.159	0.189	1	0.663					
β_{15}	-0.221	0.194	1.300	1	0.254	0.931***	0.199	1.890	1	0.000					
β_{16}						-0.597**	0.221	7.278	1	0.007					
β_{17}	0.525**	0.216	5.937	1	0.014	-0.308	0.246	1.569	1	0.210					
β_{18}											-0.235	0.149	2.493	1	0.114
β_{19}						0.769**	0.258	8.915	1	0.003					
β_{20}	0.260	0.164	2.518	1	0.113	0.346*	0.162	4.577	1	0.032	0.259*	0.123	4.454	1	0.035
β_{21}						0.951***	0.218	3.966	1	0.000					
β_{22}						-0.340	0.209	2.628	1	0.105					
β_{23}						-0.192	0.155	1.535	1	0.215					
β_{24}						0.597*	0.273	4.794	1	0.029					
β_{25}	-1.114***	0.284	5.343	1	0.000	-0.664**	0.271	5.983	1	0.014					
β_{26}	0.401	0.291	1.896	1	0.169										
β_{27}	0.538	0.313	2.945	1	0.086										
β_{28}	-0.625**	0.221	3.020	1	0.004	-0.072	0.240	0.090	1	0.765					
β_{29}						-0.270	0.193	1.961	1	0.161					
β_{30}	0.246	0.209	1.383	1	0.240										
Equation Fitness	Model fit = 0.000 Pseudo R ² = 0.294					Model fit = 0.000 Pseudo R ² = 0.572					Model fit = 0.000 Pseudo R ² = 0.190				

* Significant at 10 percent ** Significant at 5 percent *** Significant at 1 percent