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Overseas accounting students in Australia and performance in literary work : an empirical test

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**Overseas Accounting Students in Australia and Performance
in Literary Work: An Empirical Test**

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Abstract

This study compared the performance of local and overseas students, studying in a Western Australian university, in respect of both a literary and practical component of an examination question associated with a second year accounting unit. An analysis of the results, using an analysis of variance, indicated that language background for these two groups of students was a significant discriminating variable. This result lends support for the claim by the large Australian-based major public accounting firms that overseas accounting graduates lack language skill, which is, in turn, cited by the firms as a basis for not employing the graduates. Notwithstanding the extreme importance and implications of this research for concerned stakeholders, including educators, educational institutions, graduates and employers, and government migration policy, the research findings should be treated as tentative and further research is suggested.

Keywords: Accounting education; International students; Literary performance

1. Introduction

In recent years educational institutions in Australia have experienced rapid growth in the number of overseas students studying for an accounting qualification. This has provided local institutions, particularly universities, with the opportunity to supplement their income in the face of declining government funding and, at the same time, enrich the cultural environment of the communities concerned. The rapid increase in overseas student numbers is not restricted to those courses operating on-shore. A number of institutions provide off-shore courses which enables students to complete their studies in their own country, or, to complete two years of study in their own country with the final year in Australia. Notwithstanding the available choices, many students elect to complete the entire accounting course in Australia.

The number of overseas students entering accounting courses in Australia is largely attributed to the skills shortage program introduced by the Australian government specifically designed to overcome a skills shortage in the accounting profession. The program gives accounting graduates additional points over applicants with other disciplinary skills when seeking to migrate to Australia. The number and country of origin of overseas born accounting-graduates accepted under the skilled migration program over the period 2001 to 2004 is depicted in Table 1 (Morris, 2004).

Has the skilled migration policy implemented by the government proved to be a success? From an analysis of the data in Table 1 shown in Table 2, in terms of total numbers, the answer appears to be in the affirmative, although there has been a change in the mix of countries. In the final year (2002-3/2003-4) apart from the *Rest* the individual countries India, China and Hong Kong, have lifted their ranking, in that order. However, despite the large percentage increase (166.4%) in numbers over the period 2001-2/2003-4, many of the overseas students have not been successful in finding employment in the accounting profession. The question arises, then, as to why they have not been successful – an empirical question. The major public accounting firms have indicated that they do not employ the overseas students because in their view they are lacking in language skills and local business knowledge. Senior administrators of Australian institutions, on the other hand, have

suggested that the low employment rate may reflect bias in the employment policies of these firms. Concerned that the migration policy may not be working as intended, the government has appointed a parliamentary committee to review its program.

Table 1
Overseas-born accounting graduates accepted under the skilled migration program

Country	2001-2	2002-3	2003-4
China	288	409	1029
Hong Kong	59	81	155
India	85	99	279
Indonesia	255	198	278
Malaysia	57	117	184
Singapore	26	46	71
Rest	163	226	489
Total	933	1176	2 485

Table 2
Increases (Decreases) in overseas-born accounting graduates accepted under the skilled migration program

Country	2001-2/2002-3			2002-3/2003-4		
	No	%	Rank	No	%	Rank
China	121	76.74	3	620	141.81	2
Hong Kong	22	37.29	5	74	91.36	4
India	14	16.47	6	180	181.82	1
Indonesia	(57)	(22.35)	7	80	40.40	7
Malaysia	60	105.26	1	67	57.26	5
Singapore	20	76.92	2	25	54.35	6
Rest	63	38.65	4	263	116.37	3
Total	243	26.05		1 309	111.31	

Given this background, we investigate the first of the two concerns expressed by the major public accounting firms in Australia. Namely, that the overseas students are lacking in language skills in comparison to their local counterparts. Whilst the motivation of the study is to empirically test this concern, there are other important associated matters of concern to stakeholders. Firstly, should the parliamentary enquiry amend their current policy on the skilled migration program to a more restrictive policy this will impact heavily on the finances of many Australian

educational organisations. This could in turn restrict the growth of these institutions which could result in redundancies in both academic and non-academic staff. Secondly, “further growth in their numbers cannot be guaranteed given the recent developments in the overseas-student market place” (Migration and the Accounting Profession in Australia, p. 18, 2005). Finally, and equally importantly, overseas students culturally enrich programs and relationships between countries, the benefits of which would not otherwise accrue to the individuals and communities concerned i.e., the benefits of such programs are cultural as well as economic.

The remainder of this paper is organised as follows. Section 2 reviews prior Australian anecdotal and empirical research, followed by details of the present study and research hypotheses to be tested in Section 3. Section 4 reports the result of the statistical tests followed by the limitations of the study in Section 5. Finally, Section 6 provides a general conclusion to the paper, implications of the results, and some suggestions for further research.

2. Prior Australian Research

2.1 Anecdotal

It is not the first occasion that the language skills of overseas students have been questioned. Some fifteen years earlier the Mathews enquiry into accounting education in 1990 expressed reservations on the skills of overseas students and expressed a range of measures to assist them in their course of study.

Earlier anecdotal evidence by Ballard and Clanchy (1991) suggest that overseas students will experience language difficulties when studying in Australia. For example, in stressful situations such as examinations a state of panic may set in which will impact on their performance in an examination.

Later anecdotal evidence, both in the current institution in which the study was conducted and other institutions, indicates that overseas students request that they be permitted to use a dictionary in examinations. In some instances the students are permitted to use a dictionary and in other instances they are not. Overseas students have also been known to query the meaning of words during an examination

including those to which they have previously been exposed during the semester. The apparent problem with the English language extends to other forms of communication, including email messages and applications to enter a research degree.

Informal discussions with academic staff in the institution in which the current study was conducted indicated a range of opinions. The majority of persons acknowledge the difficulty that overseas students have with both written and spoken English, including in some instances misunderstanding the requirements of written questions.

In summary, whilst one must beware of the limitations of accepting anecdotal evidence, such evidence suggests that overseas students experience language difficulties, which may impact on their performance in a written unit. However, such opinions must be tested by empirical research. It is difficult, if not impossible, to obtain resolution of a problem without sound empirical research.

2.2 *Empirical*

An extensive search of the Australian literature indicates the presence of only four studies directly relevant to the current study. These were the studies by Christopher and Debreceeny, 1993; Jackling and Anderson, 1998; Harnett, Romecke and Yap 2004; and Keef and Roush, 1997.

The longitudinal study by Christopher and Debreceeny (1993) compared the performance of second year undergraduate students in a single West Australian metropolitan university who had English as a second language with students from an English speaking background. Overseas students were allocated to the English group if they had been in Australia for 10 years. In essence, the study was geared toward testing the proposition of the report into accounting education by Mathews et al (1990) which suggested that overseas students be specially catered for. Performance in units requiring largely “worked” responses to “problems” (Cost Accounting 2 and Financial Accounting 2) were compared with the performance in units requiring largely “written” responses to “fact situations”. The results of this study indicated that in only one unit was there a significant difference in performance. This was in

Financial Accounting 2 where the results of the second language in English group was higher. Consequently, the findings of this study did not support the report by Mathews et al (1990). Christopher and Debrecey (1993) suggest further research into motivation and dedication as these factors may have influenced the result.

Jackling and Anderson (1998) conducted a study into the performance of accounting students in Management Accounting 1 which was taught in the second-year at a Victorian university. Unlike the study by Christopher and Debrecey (1993) their research included other variables in addition to language. These additional variables were entry qualifications, prior study of accounting, general ability, gender and study mode (full-time or part-time). They found significant variables to be entry qualifications (path), and that part-time students performed better than full-time students. General ability (Anderson Tertiary entry score) which was found to be significant using a t-statistic was not found to be significant in the ordinary least squares (OLS) regression model. Therefore, language, as with the earlier Christopher and Debrecey (1993) study, was found not to be a significant variable in terms of performance.

Hartnett et al. (2004) examined student performance with an international student focus. The study was undertaken in a New South Wales university in three undergraduate accounting courses, Financial Accounting Fundamentals (year 1), Corporate Accounting and Reporting (year 2) and Accounting Theory (year 3). Hartnett et al (2004), as with Jackling and Anderson (1998), included a number of variables in their study. These variables were, student origin, ability, anxiety, work experience in accounting, accounting study prior to university and enrolment status. Two main research questions were investigated. First, whether international students performed differently from local students. Second, whether the performance of international students improved over time. Multiple regression (OLS) was employed to analyse research question 1 and logistic regression for research question 2. In the analysis of research question 1, all variables were found to be significantly associated with performance, while in research question 2, an improvement by international students over time was rejected. As with the earlier two studies the performance of international students was found to be superior to local students.

2.3 *Summary*

The anecdotal research over time suggests that there may be a problem with the current performance of international students in comparison to local students. Especially, with respect to written units and/or written components that form part of the total assessment of a unit. However, such research needs to be tested by empirical research as a basis for accepting or rejecting the proposition.

The empirical research undertaken displays some important characteristics and this needs repeating. The studies have been undertaken in three different universities in Australia over varying time periods and have produced a reasonably similar result. Even though the actual units tested in each have been different as have the number of units in each study and not all units were in accounting and only one study expressly investigated language. However, while all three studies provided limitations, some which appear to have been resolved if one considers the studies in totality, it is considered one serious limitation of all three studies is that they did not consider teaching effectiveness and in so doing combine the student results of units taught by more than a single lecturer. Given this important limitation, the present study addresses that limitation.

3. The Study and Hypotheses

The study in Edith Cowan University in Western Australia was designed to compare the performance of local and overseas students in a question obtained from an examination in Financial Accounting II, a core unit in the Bachelor of Business, with a major in accounting. Data on individual student characteristics and unit results for all students who sat for the Financial Accounting II examination in Semester 2 2005 on two separate campuses was obtained from the University administration database.

A description of the unit (Financial Accounting II) obtained from the Faculty of Business undergraduate handbook (2005, p. 322) reads as follows.

This unit is an intermediate unit in financial accounting. The primary emphasis is upon corporate financial reporting. This unit sets the theoretical and practical foundation for the preparation and presentation of corporate financial statements. Students are expected to be able to apply theoretical

principles in solving practical problems. The unit not only requires the careful preparation of solutions to practical problems but also wide and thorough reading in the relevant accounting literature. Students are expected to maintain an up to date view of professional accounting thought and practice.

The examination paper for Financial Accounting II contained a total of six questions and required any five questions to be completed. The question selected to form the basis of the test of performance between the overseas and local students contained two sections, Part A and Part B. Part A, the literary section, contained a written question concerning the definition and recognition of a liability. Part B, the practical component of the question, required an income statement based on the Edwards and Bell CCA measurement model. The question forming the basis of the study is shown below.

QUESTION 2 20 Marks

Part A

On 1 June 2006 the directors of X Ltd decided to donate \$50,000 to the Australian Animal Protection Society. The Society was informed by letter on June 6 of the company's intention and that the donation would be paid in August 2006.

REQUIRED

- (a) Discuss whether the commitment meets the **definition** of a liability to X Ltd, and whether the commitment would meet the criteria for **recognition** on the face of X Ltd's balance sheet at 30 June 2006. Support your discussion with reference to the relevant sections of the *AASB Framework for the Preparation and Presentation of Financial Statements*. **(8 marks)**
- (b) Would your answer to (a) above be different if the Society had not been advised of the decision by 30 June, 2006? Why/Why not? **(2 marks)**

Part B

On 1 July 2005 Kite Ltd began its first year of business with the following assets and liability:

Assets	At cost
Cash at bank	\$10 000
Inventory (8,000 units at \$6 per unit)	48 000
Plant and machinery	50 000
Non-current loan	10,000

The total inventory was sold on 31 December 2005 for \$12 per unit and was immediately replaced at a cost of \$8 per unit (8,000 units). Wages for the year were \$35,000 and sundry expenses, including interest, totalled \$5,000. All four transactions were for cash.

At 30 June 2006 a total of 8,000 units of inventory were sold on credit at \$14 each. The 8,000 units were replaced at a cost of \$9 each, on credit.

The company depreciates its plant and machinery using the straight-line method. The depreciation period is 8 years. The plant is expected to have a zero residual value.

The replacement cost of the plant and machinery at 30 June 2006 was \$52,000.

REQUIRED

Show your workings where appropriate

Prepare Kite Ltd's **income statement** (only) for the year ended 30 June 2006 using the Edwards and Bell's CCA measurement model from the financial capital perspective. **(10 marks)**

This question was selected as being suitable for a number of reasons. First, it contains both a literary and practical section to enable testing on the same unit, Financial Accounting II. Second, the marks allocated for both components were equal. Third, the selection of a second year accounting unit means the students were entrenched in the major in accounting and university study. Fourth, the acculturation process into the Australian environment would have commenced. Finally, the lectures on both campuses were for a single unit (Financial Accounting II) and were taken by the same academic staff member. This enabled the study to be controlled for teaching effectiveness.

Selective criteria were employed for student inclusion in the study. To qualify for inclusion in the study a student must have attempted the question in its entirety and to control for learning effect it must have been the first attempt at Financial Accounting II by that student.

As a consequence of the conflicting opinions of anecdotal prior research and the superior performance of overseas students in prior empirical studies undertaken in Australia, the hypotheses were stated in null form. It was hypothesised that:

H⁰¹: That overseas students studying in Australia will perform identically to local students in a Financial Accounting II ‘literary’ component of a question.

H⁰²: That overseas students studying in Australia will perform identically to local students in a Financial Accounting II ‘practical’ component of a question.

4. Results

Of the students who sat for the examination in Financial Accounting II in Semester 1 2005 a total of 84 students attempted the question. These examinees comprised 54 local students and 34 overseas students. The origin of these students is contained in Table 3. For the purpose of this study ‘local’ refers to Australian residents and ‘overseas’ to overseas residents.

Table 3
Percentage of Student Population and country of origin

Country	Number	Percentage
<i>Local</i>	54	64.29
Australia		
<i>Overseas</i>		
Bangladesh	1	1.19
Botswana	1	1.19
China	13	15.48
Hong Kong	4	4.76
Japan	2	2.38
Kenya	1	1.19
Malaysia	1	1.19
Taiwan	1	1.19
Thailand	1	1.19
Zambia	2	2.38
Zimbabwe	3	3.57
Total	84	100.00

Descriptive statistics on the results of the literary and practical sections on the question are shown in Table 4 below.

Table 4**Descriptive statistics for the literary and practical components of the question**

Unit	Mean	Standard Dev'n
Financial Accounting 2 'Literacy'		
Local only (n = 54)	4.41	2.37
Overseas (n = 30)	2.67	2.66
Combined (n = 84)	3.79	2.60
Financial Accounting 2 'Practical'		
Locally only (n = 54)	7.56	2.30
Overseas only (n = 30)	8.28	2.58
Combined (n = 84)	7.82	2.41

An Analysis of Variance (ANOVA) was used to test the performance between the overseas and local students on the literacy component (H^{01}) and practical component (H^{02}) of the examination question in Financial Accounting II. An important assumption prior to undertaking this test is to use Levene's test of homogeneity of variance. In this case, Levene's test showed no significant difference in the variability of the groups for literacy (Sig = 0.349) and for practical (Sig = 0.846).

The results in Table 5 indicate a significant difference in the literary component ($p \leq 0.01$). However, there was no significant difference in the practical component ($p \geq 0.01$). This result shows that H^{01} was rejected and H^{02} was not rejected. This result was confirmed with non-parametric statistics.

TABLE 5**Anova for the 'Literary' and 'Practical' components of the question**

SOURCE	SS	DF	MS	F	P
Literacy – Between Groups	58.439	1	58.439	9.561	0.003
- Within Groups	501.204	82	6.112		
- Total	559.643	83			
Practical – Between Groups	9.957	1	9.957	1.725	0.193
- Within Groups	473.365	82	5.773		
- Total	483.321	83			

5. Limitations

The study, as with most empirical studies, is subject to a number of limitations which include:

- The data available did not provide information on previous studies in English for the overseas group. Nevertheless overseas students are required to complete an English test prior to admission.
- The student sample is confined to a single institution and a single semester. However, it is not unreasonable to assume that these students are no different from those students attending other institutions in Western Australia. Further, limited anecdotal evidence suggests this to be the case.
- No distinction was drawn between full time and part time students
- The study related to a single accounting unit. This was the nature of the study and was necessary to control for teaching effectiveness. It is a second year unit and therefore allowed for some period of acculturation to have commenced.
- Local students may include students who relatively recently obtained permanent residence status in Australia.

6. Conclusion

The purpose of this study was to examine the performance of local students in comparison to overseas students in both literary and practical aspects of the same question from a past Financial Accounting II, Semester 2 2005 examination. Unlike the empirical research discussed earlier in the paper, the findings of the study, subject to the limitations stated in Section 5, suggest that there is a significant difference in the performance of the literacy part of the question (Part A) in comparison to the practical part of the question (Part B). Consequently, the findings of the study lend empirical support for the difference in language skills noted by the large public accounting firms and some of the anecdotal prior research. Assuming of course these findings extend to the third year and subsequently to the workplace.

The findings of this study have implications for educational institutions. They suggest the current English entrance requirements may not be sufficiently high.

Consideration could be given to the inclusion of an additional unit(s) in Business Communications or within a module. The present policy in the institution forming the basis of this study is to encourage students to seek assistance from course supervisors and the learning advisor attached to the Faculty, and to be allocated to a mentor with expertise in English.

Further research may provide additional insights into the important research question investigated in this study. This could include a longitudinal study in the same institution; inclusion of other units as well as second and third year units, and specific country analyses. In particular the analysis of specific countries, an issue currently being addressed by the authors, has the potential to pinpoint the country or countries experiencing the performance problem and this could also be compared with the graduates from countries not obtaining employment. Also, the study could be replicated in the same University using the same question in another semester and the results of the prior semester be compared. Further, the study could be replicated in other educational institutions in Australia as this would strengthen or otherwise weaken the findings of this study.

Finally, a note of extreme caution, there is no basis in this study to conclude that some local students do not lack language skill or that, despite being found in this study to out-perform overseas students that their language skills cannot be improved or are even totally adequate.

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