SOME DETERMINANTS OF STUDENT PERFORMANCE IN UNIVERSITY ACCOUNTING EXAMINATIONS

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ABSTRACT

This paper is concerned with one aspect of the efficiency of accounting education, that is the pass/fail performance of students at examinations. The paper initially looks at the two main elements of the admissions policy into Irish universities, namely the CAO preferences and CAO points. In addition, the impact of prior study of accounting on examination performance is investigated.

The results of this study indicate that prior exposure to accounting (categorised between Leaving Certificate, Intermediate Certificate and none at all) was the most significant determinant of performance in first year exams but was of lesser importance in the second year exams. Also, there was a very strong relationship between performance in the mid-course MCQ exam and Summer exams in first year. Overall CAO points were related to overall score but not to pass/fail classification. However, there may be other important (but overlooked) variables which could be used to explain performance.

There are a number of important implications arising from this study for overall admissions policy for Business Studies programmes and the allocation of teaching resources.

INTRODUCTION

Admissions policy to third level institutions in Ireland is based exclusively on two elements: namely, the preferred choice of study of each applicant and on the academic attainment of each applicant as measured by 'points' obtained in the Leaving Certificate. The advantages of this

system are administrative simplicity and freedom from interference from people in positions of influence. Thus, university students in Ireland are a highly selected population in that of all those who seek university places in any given year only a proportion succeed (Dowling, 1991). A selective admissions policy allows a university to make the most efficient use of its limited resources and should reduce the human wastage factor associated with student failure at examinations. In order to be seen to use its resources more efficiently, a university should attempt to minimise its failure rates, subject to maintaining overall quality. Any method which facilitates the prediction of student failure must be in the university's and student's interest.

The aim of this study is to assess the relationship between student preferences, CAO points, prior study of accounting and performance in university accounting examinations over two years. The predictive ability of a mid-course MCQ exam in first year is also investigated. These relationships were tested for the sample population and separately for male and female students. The paper is divided into four sections. The first section reviews the literature. However, because of space restrictions only the main literature in the field of accounting education research will be reviewed rather than the broad area of education in general. This is followed by a description of the study, research hypotheses and methodology. The results of the research are then outlined. The final section discusses the findings of the study and suggests areas for future research.

LITERATURE REVIEW

A number of studies have attempted to explain relative performance in university accounting examinations. Smith (1968) noted significantly higher overall examination performance by students with prior secondary school accounting course work. However, Baldwin and Howe (1982) and Bergin (1983) found that superiority had disappeared by the final exam at the end of the first year. Subsequently, Schroeder (1986) noted that students with *more* than one year of secondary school accounting earned significantly higher scores on all exams in the university introductory financial accounting course.

An attempt to introduce additional variables was made by Eskew and Faley (1988). While high school accounting exposure had a significant impact throughout the first college year, the authors found that a student's academic ability, past and present academic performance, previous exposure to related subjects (such as maths and statistics) and vari-

ables reflecting effort/motivation all had a significant and positive impact on examination performance. Earlier, Dockweiler and Willis (1984) found that entering GPA was the single best predictor of subsequent academic performance. Booker (1991) discovered that ACT scores could serve as an indicator of those students with the greatest potential for successful completion of the accounting programme. More recently, English and Koeppen (1993) concluded that the internship students performed significantly better than non-internship students in accounting courses. Also, Carpenter, Friar and Lipe (1993) found strong relationships between students' expectations and performance. Self-expectation of examination results, together with personality type and prior knowledge of accounting, were also found to be significant predictors of student performance in Hong Kong (Gul and Fong, 1993).

In a Scottish study, Mitchell (1985) concluded that the benefits of secondary school accounting were evidenced only by the performance of students in computational accounting university exams. No such benefit was evidenced on essay-based examinations. Peel, Pendlebury and Groves (1991), in a UK study, found that an 'A' level accounting award had a significant positive impact on first year performance, but there was no detectable impact on third year student performance. Subsequently, Bartlett, Peel and Pendlebury (1993) concluded that prior study of accounting at 'O' or 'A' levels, although showing a significant relationship with performance in the initial test of basic financial understanding, was not a significant determinant of performance in either the first or final (third) year university examination.

Keef (1988), based on New Zealand data, concluded that prior study of accounting had no significant impact on first level university accounting performance. Subsequently, he discovered that there was no advantage to be gained from having one or two years of prior study (Keef, 1992). In Australia, Loveday (1993) concluded that students with an 'A' grade in high school accounting could be exempted from the first semester of university accounting without being disadvantaged in the second semester performance. She argued that resources could be more efficiently utilised by reducing the teaching time for those students who had achieved an 'A' in school accounting. Loveday's findings could mean that school accounting would become a necessary prerequisite for university studies in accounting and first semester accounting would no longer be taught since this knowledge would be assumed.

The performance of female versus male accounting students has also been studied. In an American study, Mutchler, Turner and Williams (1987)

found that female students significantly outperformed male students in upper-division accounting courses. In addition, they found that the gender of the instructor was an important variable – with female-instructed students obtaining higher scores than male-instructed ones! Tyson (1989) confirmed that female students tend to receive higher grades in all courses, including introductory accounting courses. However, Lipe (1989) and Doran, Bouillon and Smith (1991) failed to detect any evidence of gender effect.

In an Irish context, Clarke (1989) found that there was a significant relationship between Leaving Certificate accounting results and performance in first year accounting examinations. This advantage accrued to both males and females. Subsequently, Clarke (1990) extended his sample and concluded that the advantage of prior (school) study of accounting in first year examinations had disappeared for male students in second year examinations in both financial and management accounting. However, for females there was a definite advantage in their second year management accounting exams associated with secondary school accounting. He suggested that the difference in female performance in the second year management accounting exam could be explained by its compulsory nature whereas the financial accounting exam in second year was optional.

More recently Willis (1991) examined performance in a one-year postgraduate diploma in accounting at Dublin City University for non-business graduates. She discovered that the most significant variables predicting successful examination performance were overall degree results (that is, first class honours), type of degree and sponsorship by an accounting firm while undergoing this course. She also discovered that the success rate in the final exam was significantly associated with the results of exams taken at the end of the first week of the programme.

O'Donnchadha (1992) undertook a broader study of all students entering Tralee RTC in 1989 and who graduated in 1991. He discovered that the entry points was not a major predictor of academic success for that institution. Leaving Certificate points explained only 16% of the variance of the dependent variable. He suggested that other factors such as the socio-economic background may be more important in explaining student performance.

Granleese, Green and Moore (1994) discovered that certain background, educational and intervening variables all showed some influence on accounting students' academic performance in two Northern Ireland insti-

tutions over a two-year period. However, background variables had generally less impact than intervening variables. Of the intervening variables, perceived knowledge of accounting was the most consistent predictor of students' academic performance. This is an interesting conclusion, since it is the perception of the subject by the individuals that is more important in explaining student performance rather than the actuality of prior study of the subject. As the authors point out, 'one may study a subject, yet feel one knows little about the subject' (p.31).

DESCRIPTION OF RESEARCH AND METHODOLOGY

The focus of this study was the 1991/92 class of the new Bachelor in Business and Legal Studies programme at UCD. The compulsory first year accounting course consisted of three one-hour lectures per week over a 24-week academic year. The course taught is exclusively 'financial' as is the accounting course taught in Irish secondary schools at Leaving Certificate level. The compulsory second year accounting course is also a financial accounting course and consists of two one-hour lectures per week over a 24-week academic year. (No second year management accounting course is required for these students.)

Since one of the purposes of this study is to examine the predictive ability of a mid-year MCQ exam in first year, the sample was restricted to those who sat both the mid-year exam and the summer exam. The MCQ exam was of 50 minutes' duration and consisted of questions emphasising both recall of facts and application of knowledge and use of problem-solving skills. It was administered when approximately 35% of the formal course lectures had been delivered. Participants were informed that the MCQ exam carried 5% of the overall course marks.

The initial sample size, analysed by accounting background and gender, is shown in **Table 1** below.

Table 1: Overall First Year Sample Size

Accounting background	**Male**	**Female**	**Total**	**%**
Leaving Certificate	33	28	61	45%
Intermediate Certificate	18	16	34	25%
No accounting background	23	18	41	30%
	74 (54%)	62 (46%)	136	100%

The sample size of 136 was reduced in second year to 130 as follows:

First year sample size	136
Less retirements/failures	(6)
Second year sample size	130

The average mark of each of the three groups over the three examinations are reported in **Table 2** below.

Table 2: Average Examination Mark Per Group

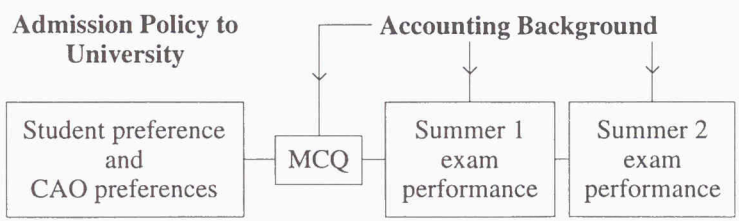
	MCQ	Summer 1	Summer 2
No accounting background	40%	41%	38%
Intermediate Certificate	47%	45%	38%
Leaving Certificate	63%	63%	46%

RESEARCH HYPOTHESES

The student classification system described above allowed the testing of hypotheses on the relationship between student preferences, Leaving Certificate points, prior study of accounting, mid-course MCQ performance in first year, with overall performance in first and second year accounting examinations. The hypothesised relationships are depicted in **Figure 1**.

These hypotheses were tested using both univariate and multivariate analyses. In univariate analysis, the assumption of two variables only is made, that is the dependent and independent or explanatory variable. With multivariate analysis, two or more explanatory variables are analysed simultaneously for each individual.

Figure 1: Hypothesised Relationships



(1) The student's CAO preference should not significantly affect accounting examination performance in:
   (a) the summer exam at the end of the first year (Summer 1)
   (b) the summer exam at the end of the second year (Summer 2).

(2) The student's CAO points (that is, prior academic achievement) should not significantly affect accounting examination performance in:
   (a) the summer exam at the end of the first year (Summer 1)
   (b) the summer exam at the end of the second year (Summer 2).

(3) The level of prior exposure to accounting should not significantly affect accounting examination performance in:
   (a) the end of term MCQ examination
   (b) the summer exam at the end of the first year (Summer 1)
   (c) the summer exam at the end of the second year (Summer 2).

Finally, the ability of the first year MCQ exam in predicting future examination performance was examined. This could allow lecturers to target students who were having difficulty with the subject and take remedial action before the entire course had been completed.

(4) There is no relationship between the MCQ examination performance and the Summer 1 performance.

The data was collected from various files and student questionnaires and coded as follows:

- The CAO preferences were coded from 1 to 8, based on actual preferences, with 1 indicating the student's first preference etc
- Likewise, the CAO points used were those obtained by students and ranged from 22 to 30
- The gender for each student was coded as 1 = male and 2 = female
- The accounting background of the students was coded as 0 = none, 1 = Intermediate Certificate level and 2 = honours at Leaving Certificate level.

The data was processed using SPSS.

RESULTS OF RESEARCH

In this section, the main empirical results are presented. A summary of the main explanatory variables used in this study is contained in **Table 3** below.

Table 3: Summary Statistics of Background Variables

	CAO prefs	CAO points	Back-ground	MCQ score	Summer 1 score	Summer 2 score
Mean	2.28	24.28	1.14	52.14	52.22	41.83
Median	2.00	24.00	1.00	51.00	53.00	41.00

The first part of this section reports the results of the univariate analysis on the impact of the various potential explanatory variables on student performance. The second part provides additional empirical evidence in a multivariate context.

In a univariate context, it is possible to test hypotheses using either parametric or non-parametric methods. However, the underlying assumption of parametric methods is that the variables are normally distributed. The common test for normality is where the mean of a distribution equals the median which equals the mode. From the data, it would seem that only the CAO points and Summer 2 scores are normally distributed. Consequently, it is not appropriate to use parametric tests such as the student t test. Rather, non-parametric methods such as the Chi square and Kruscal-Wallis tests will be used here. Generally speaking, non-parametric methods use the relative positioning of the sample observations rather than their actual numerical value.

HYPOTHESIS 1A

The level of CAO preferences should not significantly affect accounting examination performance at the Summer exam at the end of year 1.

Table 4: CAO Preferences and Performance in Summer 1 Examination

	First	Second	Third	Fourth +
Passed Summer 1	89%	92%	64%	71%
Failed Summer 1	11%	* 8%	36%	* 29%
	100%	100%	100%	100%

(N = 136 – percentages only reported)

*see note on opposite page

The distribution of candidates with CAO preferences and their pass/fail performance in the Summer 1 exam is indicated in **Table 4** (opposite).

* Because the expected values of these cells were less than 5 observations, it was decided to use the Kruscal-Wallis rather than the Chi square test. This test involves a comparison of the sums of the rankings for each of the categories. The resulting H value (11.75), adjusted for ties, is significant at the 1% level. It is possible that this relationship reflects the motivation of individuals to pursue a chosen field of study.

HYPOTHESIS 1B

The CAO preferences do not significantly affect the accounting examination performance at the Summer exam at the end of year 2.

The distribution of candidates with CAO preferences and their pass/fail performance in the Summer 2 exam is indicated below in **Table 5** below.

Table 5: CAO Preferences and Performance in Summer 2 Examination

	First	Second	Third	Fourth +
Passed Summer 2	74%	74%	67%	57%
Failed Summer 2	26%	26%	33%	43%
	100%	100%	100%	100%

(N = 136 – percentages only reported)

Chi square = 2.25; df = 3; (not significant at the 5% level).

Thus, it can be reasonably concluded that CAO preferences had no important impact on students' performance in their accounting examination in second year. This is surprising given the statistical relationship discovered in the first year examinations.

HYPOTHESIS 2A

The second set of hypotheses concerned the relationship between CAO

points and accounting examination performance. Since admissions policy is based on student 'points', it is logical to assume a relationship between these points and student performance.

The percentage distribution of CAO points for candidates, together with their performance (that is pass/fail type) in the Summer 1 examination, is indicated below in **Table 6**.

Table 6: CAO Points and Performance in Summer 1 Examinations

	22	23	24	25 +
Passed Summer 1	67%	74%	87%	84%
Failed Summer 1	33%	26%	13%	16%
N = 136	100%	100%	100%	100%

Chi square = 4.25; df = 3; p = .23. This indicates that the hypothesised relationship is not significant at the 5% level. Descriptive statistics confirm this. For example, there is less than a single CAO point difference between the CAO points of those who passed and those who failed the Summer 1 exam.

HYPOTHESIS 2B

The performance distribution of candidates' CAO points and the pass/fail performance in the Summer 2 examination is indicated in **Table 7** below.

Table 7: CAO Points and Performance in Summer 2 Examination

	22	23	24	25 +
Passed Summer 1	56%	63%	72%	74%
Failed Summer 1	44%	37%	28%	26%
N = 136	100%	100%	100%	100%

Chi square = 2.67, df = 3; p = 0.44 (not significant at the 5% level). Thus, from **Table 7** it can be reasonably concluded that CAO points did not have a significant impact on accounting examination performance in either first or second year examinations.

HYPOTHESIS 3A

The third set of hypotheses concerned the possible impact of prior exposure to accounting and subsequent performance in university accounting examinations.
The percentage distribution of candidates with prior exposure to accounting and their performance in the end of term MCQ examination is indicated in **Table 8** below.

Table 8: Prior Exposure to Accounting and Performance in MCQ Examination

	None	Inter	Leaving
Passed MCQ	44%	71%	97%
Failed MCQ	56%	29%	3%
N = 136	100%	100%	100%

Chi square = 36.11; df = 2; p = .00000. The significant Chi square value indicates the strong, positive relationship between prior study of accounting and the pass/fail classification in the MCQ examination. For example, 59 out of the 61 candidates who had Leaving Certificate level exposure to accounting passed the MCQ. This contrasted with 23 candidates out of the 41 candidates who had no prior exposure to accounting and failed the MCQ.

The Kruscal-Wallis test, which analyses the class rankings, also revealed the same level of significance. Clearly, there are significant and beneficial advantages associated with the prior study of accounting.

HYPOTHESIS 3B

The percentage distribution of candidates with prior exposure to accounting and their performance in the Summer 1 examination is indicated in **Table 9** overleaf.

Table 9: Prior Exposure to Accounting and Performance in Summer 1 Examination

	None	Inter	Leaving
Passed Summer 1	56%	76%	98%
Failed Summer 1	44%	24%	2%
N = 136	100%	100%	100%

Chi square = 27.9; df = 2; p = .00000. The significance of the Chi square indicates the strong, positive relationship between prior study of accounting and the pass/fail classification in the Summer 1 examination. For example, 60 out of the 61 candidates who had Leaving Certificate level exposure to accounting passed the Summer 1 exam. This contrasted with 18 candidates out of the 41 candidates who had no prior exposure to accounting and who failed the Summer 1 exam. The Kruscal-Wallis test, which analyses the class rankings, also revealed the same level of significance.

HYPOTHESIS 3C

The percentage distribution of candidates with prior exposure to accounting and their performance in the Summer 2 examination is indicated in **Table 10** opposite.

Chi square = 7.37; df = 2; p =.025. The significance of the Chi square indicates the strong, positive relationship between prior study of accounting and the pass/fail classification in the Summer 2 examination. For example, 48 out of the 60 candidates (80%) who had Leaving Certificate level exposure to accounting passed the Summer 2 exam. This contrasted with 66% of the candidates who had no prior exposure to accounting but who passed the Summer 2 exam. The Kruscal-Wallis test, which analyses class rankings, was also significant at the 5% level.

HYPOTHESIS 4

The final hypothesis concerned the predictive ability of the mid-course MCQ examination and subsequent performance in the Summer 1 examination.

Table 10: Prior Exposure to Accounting and Performance in Summer 2 Examination

	None	Inter	Leaving
Passed Summer 2	66%	53%	80%
Failed Summer 2	34%	47%	20%
N = 130	100%	100%	100%

The percentage distribution of candidates classified by pass/fail type in the MCQ and Summer 1 exams is shown in **Table 11** below.

Table 11: Pass/Fail in MCQ and Summer 1 Examinations

	Pass Summer 1	Failed Summer 1	Total
Passed MCQ	91%	9%	100%
Failed MCQ	48%	52%	100%

Chi square = 29.53; df = 1; p = .00000. The significance of the Chi square indicates the strong, positive relationship between MCQ performance and performance in Summer 1 exams.

Descriptive statistics confirm this. The performance of those who sat both the MCQ and Summer 1 exam is highlighted in **Table 12** overleaf. From this table it can be seen that for males the average (mean) level of MCQ score among those who passed the Summer 1 exam was 56%. For those males who failed the Summer 1 exam, their average MCQ score was 40%. Also for females the average (mean) MCQ score was 55% for those who passed the Summer 1 exam compared with an average (mean) of 28% for those who failed.

MULTIVARIATE ANALYSIS

This section reports the multivariate determinants of the MCQ, Summer 1 and Summer 2 scores. Multivariate analysis involves the use of two or more variables as indicators of a single measure. The objective is to avoid the use of only a single explanatory variable to represent a meas-

Table 12: MCQ Score and Summer 1 Result

	Males Mean MCQ score	Females Mean MCQ score
Passed Summer 1	56%	55%
Failed Summer 1	40%	28%

ure, instead using several suggested variables representing different facets to obtain a more 'well-rounded' perspective. The technique used here is multiple regression analysis which is used to predict changes in the dependent variable (that is exam score rather than pass/fail performance) in response to the several hypothesised explanatory variables.

However, a key assumption underlying multiple regression analysis is the independence of the explanatory variables. If this is not so, then multicollinearity exists which has substantial effects on the results of the regression procedure. The principal problem is that it makes determining the contribution of each explanatory variable difficult because the effects of the variables are confounded. Thus, the statistical significance of the regression coefficients may be over/understated.

Table 13 reports the correlation coefficients between variables and reveals the presence of a strong and significant relationship between accounting background and scores at the MCQ, Summer 1 (S1) and Summer 2 (S2) examinations. In the context of multiple regression this means that, for example, if student background is used as an explanatory variable for student performance in Summer 1 exams, then the MCQ score adds little extra explanatory power to the overall model. Likewise, in analysing student performance in Summer 2 exams, if accounting background is used as an explanatory variable, then the addition of the MCQ and Summer 1 scores add little extra explanatory power to the overall model.

While other relationships are also evident, this does not give rise to the problem of multicollinearity since the correlation coefficients between the remaining explanatory variables do not exceed 0.7 – a general rule of thumb for testing for multicollinearity.

Table 14 reports a multivariate regression model, where the dependent variables are MCQ score, Summer 1 and Summer 2 scores respectively (as distinct from pass/fail classification). The models are well determined

Table 13: Correlation Coefficients

	Pref.	Points	B/g.	Gender	MCQ score	S1 score	S2 score
Preference	1.00	**.26	.09	.04	.15	.15	*.21
Points		1.00	.04	.05	.11	**.23	**.29
Accounting background			1.00	.01	**.59	**.64	**.29
Gender				1.00	.09	.02	.08
MCQ score					1.00	**.66	**.41
Summer 1 score						1.00	**.66
Summer 2 score							1.00

** = 5% level of significance; ** = 1% level of significance*

(by reference to adjusted R^2 and F statistics) with a small number of significant coefficients (identified by the t test). The models are able to explain 39%, 48% and 19% of the variation in student scores, which is reasonable for cross-sectional data of this type. The R^2 statistic of 0.48 indicates that the linear combination of the variables explain 48% of the variation in Summer 1 scores. This is a very high percentage given that the basic model contains only four variables. Thus, the addition of other potential explanatory variables to the model of analysing scores in first year accounting examinations may not be very useful. The relevant percentage is 19% for the Summer 2 score, which indicates that the inclusion of additional variables (background or intervening) may be profitable.

In general, the multivariate analysis supports the univariate analysis, especially regarding the importance of prior study of accounting. It clearly reveals that the most significant variable in predicting MCQ score (as distinct from pass/fail performance) is the prior exposure to accounting at secondary school. Prior exposure to accounting remains the signifi-

Table 14: Multiple Regression

	<——Dependent variables——>		
	(A) MCQ Score	(B) Summer 1 Score	(C) Summer 2 Score
Explanatory variables	<——Standard Beta coefficients ——>		
CAO points	**0.13	**0.25	** 0.27
Prior accounting	**0.59	**0.65	**0.29
Gender	0.10	0.00	0.07
CAO preference	0.05	0.02	0.10
R^2	0.39	0.48	0.19
R^2 (Adjusted)	0.37	0.46	0.16
F	20.95	30.87	7.55
	**(.00)	**(.00)	**(.00)

** = 5% level of significance; ** = 1% level of significance.*

cant determinant of score at both Summer 1 and Summer 2 examinations, with relatively more importance for the former.

Moreover, the level of CAO points is important in determining overall accounting score (but not pass/fail classification). It is possible, therefore, that CAO points could be an important variable in distinguishing between honours and pass classifications.

FINDINGS AND IMPLICATIONS OF RESEARCH

This study investigated the relationship between academic achievement (measured in terms of CAO points) and examination performance. The relationship was not important in terms of pass/fail classification but was important in explaining overall accounting scores. It is intuitive to suggest, therefore, that candidates with high CAO points are most likely to obtain overall honours in their exams rather than those candidates with low CAO points. Also, it is important to remember that the 'points' level for this course is already high since a minimum of 22 points was required for entry and the distribution of points, although normally distributed, was relatively narrow. Thus, it may be possible that if extra

candidates with lower points levels were accepted as additional intake, then CAO points could be an important explanatory variable in determining pass/fail classification.

CAO preference was found to be significant in relation to first year pass/fail classification but not in second year. No relationship was found between preferences and overall accounting scores in either first or second year.

Prior study of accounting (including Intermediate Certificate) was found to be the most important variable in relation to accounting examination performance. This finding has implications for secondary students (and their career advisors) who are interested in pursuing university courses with an accounting content. However, it is important to stress that this did not apply to all non-accounting background students. While some such students may suffer from their relative disadvantage, others will not. Care must be taken to ensure that low expectations are not communicated to all students.

Accounting courses should engage in targeted efforts to combat the relatively low performance and high failure rates of non-accounting background students by providing extra attention and instruction in first year at the university, especially at the early stages of the course. It would also be important to alert students to the problem at the start of the academic year. The provision of remedial work is also intuitive. Yet Australian research by Braye and Craig (1980) concluded that remedial help appeared to have no effect on students' examination performance. (The respondents were in favour of retaining remedial teaching and its greatest benefit appeared to be in reducing examination stress.) Also, teaching in smaller class sizes is an intuitive suggestion.

It is too simplistic to suggest that the answer to the question 'Why do people succeed in educational settings?' is adequately captured in the four-variable model used in this paper. The current study is based on a single sample of students. Thus, it is important to test the pervasiveness of these findings by repeating the test on other groups of students over time and in other institutions. It is recommended that additional variables be tested to explain student performance at university. Such variables may include background variables such as age, socio-economic status and intervening variables such as the quality of the lecturing, individual aptitude, learning styles and student expectations. Such variables will be difficult to measure but attempts to fully explain student examination performance are likely to be incomplete if they are overlooked.

However, it should be recalled that the four explanatory variables accounted for 48% of the variation in the Summer 1 score, suggesting a limited role for additional variables in analysing first year performance. Their role appears to be more important in examining second year performance.

In conclusion, this paper tries to highlight some of the issues concerning those to whom we teach accounting at third level. After all, the education process starts with having someone to educate!

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