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Implementing a change initiative within a university department of accountancy and finance to improve teacher practice and student learning

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Background

This paper describes a module review research project undertaken within a university Department of Accountancy and Finance. It is based on a policy and change practice approach to help staff in the ‘Scholarship of Teaching and Learning’ (SoTL) so that they develop and adopt new practices or enhance existing practices.

The reason for this initiative has its foundations in the review of the university strategic direction (macro level), which was undertaken in the summer of 2013. This resulted in a five year strategy map covering the period 2013-2018. Within the strategy map are a number of ‘key performance indicators’ (KPIs) that will be used to evaluate progress over the coming years. One of the KPIs is that 70% of undergraduate students by 2018 will be attaining a first or upper second class degree. To reach this target requires a period of change to teaching, learning and assessment practices and processes; there was a need to encourage staff to change their practices, given that entry tariff points for undergraduates had been raised already as one contributory factor. However, data to identify ‘issues’ was insufficient to support staff in diagnosing areas of apparent under performance across the range of modules in undergraduate study, in addition to identifying areas of good practice where performance was higher. The department therefore took the initiative to investigate staff and student views on a number of modules where a crude measure of average performance was used in the absence of more detailed data (either below or well above average for a cohort of students). This would allow comparisons to be made and permit aspects of best practice to be utilised in areas that required an intervention while making sure that staff leading the identified modules were closely involved in the change practice to ensure commitment and sustainability of changes.

If we look at the literature, one can sympathise with the argument put forward by Delpit (as cited in Heimans, 2012) that there is a push for educators to raise test scores rather than emphasising the development of people; that is, teachers and learners in higher education. However, teachers can circumvent the system by acting as ‘street level bureaucrats’ (Lipsky, as cited in Heimans, 2012). Here there is an ongoing interplay between micro and macro level education, whereby actors influence the environment in a ‘bottom-up’ process (Archer, 2010). Thus, policies and procedures are re-interpreted for implementation below macro level. This research project aims to bring about real change and improvement including developing staff ability to engage in future improvement projects.

Aims and objectives

This study is intended to investigate teaching, learning, and assessment practices in undergraduate accountancy and finance modules, engaging staff and students with a view to improvement in the scholarship of teaching and learning. This will identify examples of practice that are both beneficial and detrimental to student learning and develop appropriate interventions based on evidence gathered.

This paper has its focus on the quantitative data collection from staff and students by way of questionnaires; further data will be collected from individual interviews with staff and students and are not reported here.

Theoretical framework

The theoretical framework draws on the think piece by Bamber (HECU7, 2014) who suggests how it is possible for us to grow our “own improved practices on the basis of home grown evidence”. Moreover, Bamber highlights the need to engage staff in SoTL who might not be inclined to do so; and suggests the using ‘local’ data to generate “meaningful evidence for their own context” as “only local evidence can truly reflect the student story and needs”. We would add to this, the story and needs of teachers too. Bamber goes on to suggest an evidence-

informed approach whereby multiple data sources are utilised permitting cross-validation of the situation. Citing Ashwin and Trigwell (2004), Bamber demonstrates how one level of scholarship involves informing a group, for example within a department.

Research methods

The research, development, and evaluation project involved 11 undergraduate modules of study within the department. A total of 1376 questionnaires for this quantitative phase were completed by students: 447 Year One (33%), 509 Year Two (37%), and 413 Year Three (30%). The gender split was 836 Male (61%) and 530 Female (39%). The age range was between 18-43 with the majority of students aged between 18 and 26 (96%). An established measure, the Learning and Studying Questionnaire (LSQ, Hounsell et al, 2005), was used to collect data from students during term one about their intrinsic expectations of higher education, their intrinsic and extrinsic reasons for studying each module, and their approach to learning within a specific module of study. Teachers from the same modules of study also completed established measures of their approach to teaching (ATI, Prosser & Trigwell, 2006), and perceptions of the teaching environment (PTE, Prosser and Trigwell, 1997). Student grades in these modules were also collected to cross-reference with the results from these measures.

Results

A series of One-way Between Groups ANOVAS were conducted to compare the effect of year of study, domicile, and modules of study (independent variables) had on students approach to learning, their expectations of higher education, and their intrinsic and extrinsic reasons for studying different modules (dependent variables).

Effect of year of study

A One-way Between Groups ANOVA was conducted to compare the effect of year of study on students reported approach to learning in year one, year two and year three conditions (see Table 1).

Table 1
ANOVA (between year) all modules

	df	N	Sum of squares	Mean square	F	P	Effect size
Deep approach	2	1307	5.327	2.663	11.459	.000	.02
Intrinsic reason	2	1340	20.193	10.097	26.628	.000	.04
Extrinsic reason	2	1332	33.955	16.978	53.805	.000	.07

Table 1 shows that there are significant main effects. Consequently, a Post-Hoc Tukey's HSD test was carried out which showed that Year One students had significantly higher scores than Year Two and Three students for a deep approach to learning at the 0.00 level of significance. These results were repeated where Year One students also scored significantly higher than Year Two and Three students for intrinsic reasons within different modules of study. Conversely, Year One students had significantly lower scores than Year Two and Three students for extrinsic reasons within different modules of study.

Module of study (within each year of study)

Comparisons were made for different modules within different years of study. Significant differences were found for both intrinsic and extrinsic reasons for studying modules within Year One via ANOVA statistical analysis (see Table 2).

Table 2
ANOVA (within year) Year One

	df	N	Sum of squares	Mean square	F	P	Effect size
Intrinsic reason	2	429	8.430	4.215	13.119	.000	.06
Extrinsic reason	2	426	6.393	3.197	10.007	.000	.05

Table 3
ANOVA (within year) Year Two

	df	N	Sum of squares	Mean square	F	P	Effect size
Intrinsic reason	3	509	32.933	10.978	31.365	.000	.15

A Post-Hoc Tukey's HSD test showed that students in the Accountants in Organisations module had significantly higher scores than Financial Accounting, and Management and Cost Accounting students for an intrinsic reason at the 0.00 level of significance. However, this result was reversed for an extrinsic reason, with Accounting in Organisations scoring significantly lower than its counterparts.

Within Year Two modules the only significant difference was for an intrinsic reason of the module (Table 3). A Post-Hoc Tukey's HSD test showed that students from the Accounting Information Systems module had significantly lower scores than Financial Management, Management Accounting, and Corporate Reporting and Governance at the 0.00 level of significance. For the same year Financial Management students also scored significantly lower than Corporate Reporting and Governance students for an intrinsic reason of the module at the 0.00 level of significance. Of particular note is the large effect size, which suggests a need for further exploration. All other comparisons were not significant

Core modules (between years of study)

Comparisons were made between three modules; one selected from each year of study selected on the basis of the number of students within these modules to ensure sufficient sample size. ANOVA analysis revealed significant differences for student intrinsic expectations of higher education, and intrinsic reasons of the modules (Table 4).

Table 4
ANOVA (between year) core modules

	df	N	Sum of squares	Mean square	F	P	Effect size
HE intrinsic expectations	2	435	6.879	1.740	15.306	.000	.07
Intrinsic reason	2	435	7.352	3.676	12.595	.000	.05
Extrinsic reason	2	434	22.435	11.218	29.812	.000	.12

More specifically, post-hoc comparisons showed Year One students scored significantly higher than Year Two and Three students for intrinsic expectations of higher education and an intrinsic reason for study within a module, and significantly lower for an extrinsic reason at the 0.00 level of significance. The large effect size for an extrinsic reason for studying modules is of particular note, and something which will be explored further. All other comparisons were not significant.

Country of Origin (Domicile)

Analysis revealed significant differences between students when comparing their domicile (Table 5).

Table 5
ANOVA Original Domicile of Student

	df	N	Sum of squares	Mean square	F	P	Effect size
Deep approach	3	1279	4.670	1.557	6.607	.000	.02
Surface approach	3	1287	8.522	2.851	9.539	.000	.02
Extrinsic reason	3	1301	33.586	11.195	35.104	.000	.08

Table 6
Percentage of students in Year One, Two and Three by domicile

	UK	EU	Overseas	China
Year One	70.2	7.1	16.0	6.7
Year Two	59.1	6.5	11.5	23.0
Year Three	37.0	5.8	14.0	43.2

Students from the overseas category scored significantly higher than students from the UK and from China for a deep approach to learning. These differences were at the 0.00 level of significance. Students from China scored significantly higher than students from the UK, EU, and overseas for a surface approach to learning at the 0.00 level of significance; a pattern repeated for an intrinsic reason for studying modules.

Teacher perceptions and their approach to teaching: comparisons with student approach to learning and their grades

The data collected via the questionnaires was used to make comparisons between the perceptions teachers have of their teaching environment, their approach to teaching, student approaches to learning and their subsequent learning outcome in the form of a module grade (Table 7).

Module	Year	Teacher	CCSF* (ATI)	ITTF* (ATI)	Class size (PTE)	Time Pressure (PTE)	Dept. View of teaching (PTE)	Control of teaching (PTE)	Student charact. (PTE)	Student group mean (deep)	Student group mean (surface)	Student average grade 2014
Accountants in Organisations	1	1	3.50	2.38	1.83	2.17	2.63	2.00	2.17	3.82 (SD .596)	2.88 (SD .593)	59.11
		2	3.13	2.38	2.67	2.00	2.88	2.38	2.17			
Financial Accounting	1	3	3.00	3.50	2.17		3.50	2.88	2.67	3.73 (SD .392)	3.13 (SD .515)	47.28
Management & Cost Accounting	1	4	2.75	3.38	2.17	2.83	2.75	2.00	4.00	3.72 (SD .412)	3.00 (SD .555)	50.58
Accounting Information Systems	2	5	3.13	3.38	2.83	2.00	2.88	2.38	3.33	3.58 (SD .442)	3.21 (SD .489)	60.02
Financial Management	2	6**								3.61 (SD .521)	3.10 (SD .586)	56.95
Management Accounting	2	4	3.13	2.63	2.17	2.67	2.38	2.13	4.00	3.59 (SD .473)	3.10 (SD .540)	56.71
Corporate Reporting & Governance	2	7	2.38	3.50	2.50	2.50	2.88	3.00	3.50	3.64 (SD .492)	3.05 (SD .526)	50.86
		8	1.75	4.13	3.67	3.50	2.63	2.63	3.17			
Advanced Corporate Reporting	3	9	2.63	2.13	1.67	2.67	3.00	2.25	3.00	3.62 (SD .488)	3.08 (SD .511)	57.05
Advanced Management Accounting	3	8	1.63	4.00	3.17	2.83	2.63	2.38	2.67			50.64
		10	3.63	3.00	1.83	2.33	3.00	2.38	3.67	3.71 (SD .442)	3.17 (SD .530)	
Audit Framework	3	11	3.88	3.38	2.00	2.67	3.50	2.38	3.50	3.67 (SD .603)	3.04 (SD .579)	36.24
Corporate Finance	3	6**								3.69 (SD .511)	3.17 (SD .578)	48.69

Note: for some modules scores for two teachers were collected as they both made a significant contribution to the module

*CCSF – conceptual change student-focused; *ITTF – information transfer teacher-focused; ** = no staff member response

Correlation analysis was conducted for teacher scores on the ATI and PTE. The results revealed an association between an information transfer teacher-focused (ITTF) approach to teaching and ‘control of teaching’ at the .01 level of significance ($r = .683$). This is understandable, as items within the control of teaching section found within the PTE suggest a focus on concentrating on the basics with regard to the syllabus, a lack of control over how and what is taught, lack of expertise in the subject matter, and that students want the syllabus adhered to and are motivated by examinations. This was the only significant correlation evident within the data.

Looking at the data for Year One (Table 7), the suggestion is that students achieve higher grades when their teachers have a higher conceptual change student-focused (CCSF) approach to teaching than an information transfer teacher-focused (ITTF) approach.

However, this was not evidenced when looking at the data for Year Two and Three as the numbers show a somewhat ‘mixed bag’. What is interesting though, when looking more closely, is that in Year Two the module with the lowest average student grade also had two teachers who had a more pronounced difference between an ITTF and CCSF approach to teaching than their Year Two counterparts. That is they were more focused on information transfer than the other teachers in Year Two modules. In Year Three however, the module with the

highest average student grade, was taught by two members of staff who differed in their ITTF and CCSF scores. Clearly, this has some influence and needs further exploration through analysis of the qualitative data collected. This will establish, amongst other things, what contribution each member of staff is making within particular modules of study.

Discussion and further work

Looking at the data already collected for the project as a whole, the evidence suggests that all teachers have the intention of making the student experience both rewarding in terms of the grades achieved and the activities they are involved in. Whether this is evidenced in the data collection and analysis is yet to be established.

The results from this particular part of data collection suggest that year of study has an effect on students reported deep approach to learning. Specifically, our results suggest that when students progress through their university studies a deep approach to learning decreases. It appears that this pattern is associated with an intrinsic reason for study within modules and an intrinsic orientation in relation to expectations with regard to higher education overall.

Domicile (student country of origin before study), also influences their approach to learning and extrinsic reason for study within modules. Overseas students are significantly 'deeper' in their approach to learning than their UK and Chinese counterparts, and Chinese students are significantly more surface in their approach to learning than UK, EU, and overseas students. In addition, Chinese students are more extrinsic than all other groups of students in their reasons for study within modules. Taken together, the results suggest that the influx of direct entry Chinese students into Year Two and Three of study has an impact statistically, and as a consequence highlights differences in approaches to learning within different cultures. This is something which needs to be borne in mind, and which requires further exploration. It is worth mentioning too, that in another project, it was evident how sensitive students were to their degree marks, and thus become more extrinsic and surface as a result. This was in the data - as students approach the later years of study they are more extrinsic and less deep.

An important point to note is that on the LSQ students can score high for both a deep and surface approach to learning, and this was noted when the data was input to SPSS. One possible explanation (and another pointer for further investigation), is linked to the type of assessment given the subject matter and effect of professional accreditation. Assessment is a key driver for learning and so understanding how members of staff have used assessment, and what students think about assessment, will be an interesting area to look at within the qualitative data.

The results reported are based on the initial phase of a longitudinal study into aspects of teaching, learning, and assessment within undergraduate modules of study. As such, they will be used as an indicator of areas for further exploration using qualitative methods.

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