

Reflection On An Undergraduate Market Analysis Subject – Informing Course Refinement

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Abstract

Subject evaluations and project surveys have been used in a practical demonstration of course review of an undergraduate Market Analysis subject. Overall this subject is seen as practical and encourages critical thinking. However a major project that continues from the prior Marketing Research subject, is seen as difficult and challenging, increases their understanding of statistical analysis and encourages independent thought, and is reported as time intense. A more detailed picture emerged when five student subgroups, based on their experience with the project, were formed. This confirmed anecdotal evidence that whilst some students really enjoyed the subject *Engaged* and were more likely to work in research in the future, another group disliked the subject *Disengaged*. A third sub-group *More Direction* was similar to the *Engaged* group except that they reported ambiguity in the task definition. The fourth group expressed great difficulty and time pressure though still reported increased statistical knowledge *Hard going*. A fifth group were distinguished by their lower likelihood to work in research *Not research!* Using feedback from the overall subject evaluations and project specific ratings and comments, and being mindful of differences across student subgroups several changes were implemented in Market Analysis in the second half of 2005.

Introduction

Market Analysis (MA) is a core subject in the marketing stream of an undergraduate commerce degree. It is an extension of the Market Research (MR) course, providing an opportunity to develop a thorough understanding of the market research process through the application of single and multivariate statistics to 'real' data. A major aim of the separation of the two subjects was to increase the level of "practicality", in terms of both discipline specific skills and generic or life long skills. Examples of the later include communication, computer usage, problem solving and decision making (Nonis and Hudson, 1999), leadership and team work, self-starter (McKeage, Skinner, Seymour, Donahue, Christensen, 1999). To do this it was considered important for students to be "active in the process or 'experience' of learning" (p. 135, Kennedy, Lawton and Walker, 2001). More specifically at a subject level, the aim was to increase statistical understanding, encourage in-depth thought and to foster an appreciation of research, either as a practitioner or as a buyer of research post graduation.

A deeper understanding of the research process and analysis is made possible through the *integrated two session project* (Burford, Harris and Buttriss, 2003). It aims to give the students a learning environment that is as close as possible to a 'real' research situation. Topic selection is guided in part by the need to have an issue that has relevance to students, promoting "ownership" of the project activities. Currency is fostered by an application approach to statistical tools. The mathematics is important but not the main issue. Challenge comes through the need for self guidance in the directions that the analysis might take. The groups are encouraged to narrow their efforts and look in depth at areas or questions that interest them, to put them in the context of marketing theory and to manage the project so that it does not overwhelm them.

A project specific "Student Experience Survey" (SES) was implemented in the third year of running of the integrated project, to quantify and track level of difficulty, understanding and liking of research and analysis. This was prompted by anecdotal feedback of very discrepant views of the subject and the project. Feedback to the teaching team was then used to fine-tune elements of the project.

A reduction of tutorial times from two hours to one and a half hours, coupled with an increase in class sizes has prompted a more detailed review. Several sources of feedback were available: Subject Rating Inventory (SRI) 2003, the newly introduced Course and Teaching Evaluation and Improvement (CATEI) 2004 data, including two open ended sections relating to "the best features" and to what "could be improved", and the SES for 2003 and 2004. From these an overview was developed, the project was evaluated and subgroup differences amongst the students explored. Some changes that will be implemented in MA 2005 are then described. Please note issues relating to obtaining and using student feedback will not be addressed in this paper.

Course Evaluation [SRI 2003, CATEI 2004]

The rating forms for subjects were changed between 2003 and 2004 making direct comparison difficult. The CATEI uses fewer questions and a four point rating scale, in contrast to a seven point scale. Some potential problem areas identified in SRI 2003 were: the assessment weighting, feedback on progress, help with problems, the text and the difficulty of the subject, though the later showed a marked spread. From this feedback greater detail was given in the tutorial notes on SPSS usage, the relative weight for the project was increased and students were encouraged to use the WebCT to set up a dialogue on specific issues.

From the CATEI 2004 the overall satisfaction with the quality of this course indicated that there may be "significant problems or areas of teaching or the course that need improvement." (General Guidelines for Interpreting the Summary Report, CATEI) The advantage of this new approach is the inclusion of open ended questions to support the numeric ratings that could help to clarify the issues flagged by the overall rating. In general, students gave a strong 'Agree' rating to "*opportunities for active participation in learning activities.*" (Q. 4 CATEI). The next most agreed with statements relate to clarity of the course aims and to it being "*effective for developing my thinking skills (e.g. critical analysis, problem solving).*" The lowest rated attributes were "*the text book and course materials were useful and appropriate*" (Q. 9 CATEI) and "*interest in the subject*" being increased having studied the course (Q. 8 CATEI). All other aspects were rated at least "agree" by more than 50% of the students.

On reflection this pattern of response is what the teaching team would have expected, with perhaps the lower rating for course material being a little of a surprise. Very few marketing students report coming to university to study statistics, thus are often reluctant to do this core subject. The course has achieved one of its main aims - to encourage critical thinking and problem solving, generic skills that can be utilized by students in other work and study areas. Also the approach to the teaching of statistics has a strong emphasis on "doing", applying SPSS to a 'real' data set. That said, there is still an opportunity to move the overall satisfaction to a higher level. Most students provided written comments with their evaluations, 11% provided comments on the "best features of the course", 15% on "how the course could be improved" and 39% commented on both aspects. There was a tendency ($p = 0.069$) for females particularly international students to comment on both improvements and best features. Males were more likely to provide a comment in a single area only. If they were international male

students then they were more likely to include a comment in the 'improvements' section. If the local and international students are grouped then the gender differences become significant ($p=0.015$). Females either comment on both or neither, males in one or other of the sections.

Comments were extracted verbatim. In the best features section there was support for the practical, "hands-on" experience of the program, the teaching staff and the learning outcomes. The following quotes identify if the student is Local or International (L/I), Male or Female (M/F).

"The methodologies and procedures are very interesting. The assignment provided me practical implementation, which is exactly what I need." [LM]

"Hands-on applicability – very relevant." [IM]

"The teaching staffs (both tutor & lecturer)." [IF]

"Challenging, encourage critical thinking." [IF]

"The actual application of using SPSS to analyse and interpret data." [IM]

"The analysis allowed for a better understanding of the theory and principles in use. The freedom of the assessments, were sometimes not helpful but it gave a good "real" picture of MA in the real world." [LF]

Often the comments in the "could be improved" section related to structural issues: the textbook, clearer direction, more feedback, the weight of the assessment elements and the level of difficulty. Students wrote more often and more extensively in this section.

"I found very little use for the text book." [LF]

"More guidelines for project – students often found themselves lost. More guidance in SPSS." [IF]

"Provide clearer instructions for the assignment and longer time should be provided for us to do the reports." [IM]

"The page limit on the report did not give justice to the amount of time required. TOO MUCH WORK!!!" [LM]

"More directions should be given to students in projects. More follow up in student progress (group problems etc.) Marks should be increased from 10 to 15 or 20 since it require such a long man hour to accomplish." [LF]

"Making it easier, and giving more hands on help by the tutors instead of leaving the students to struggle with the complex concepts and procedures. More extra coaching needs to be provided." [IM]

Student Experience within Market Analysis Survey (SES)

Differences between the samples for 2003 ($n=134$) and 2004 ($n=144$) were tested across all variables, and as no significant differences were found, the samples were combined for further analysis. The non-response rate was also similar (15%). Overall and subgroup analysis was investigated on the basis of individual variables and two underlying factors relating to assessment structure – *outcome* and *process*. The outcome factor, process factor, ambiguity of task definition, along with their likelihood to work in the research area, were used to gain a more complete picture of the student experience through clustering into five subgroups. Characterising the subgroups was based on the original variables (not factors) (see Table1).

Overall the students reported that the project increased statistical knowledge and encouraged independent thought (*outcome factor*), but was difficult and too challenging (*process factor*) and very time intense. Subgroups had a reasonably similar distribution of genders ($p=0.205$). Four of the five groups rated an increase in their statistical knowledge. The *Engaged* group (17%) were relatively high on enjoying the subject, and thought that the task definition was clear, were likely to work in research in the future, and that the project encouraged

independent thought. The *More Direction* group (25%) were similar to the *Engaged* group except on the issue of clear task definition. This group rated task definition towards being ambiguous. The third *Hard Going* group (19%) found the project very difficult, too challenging and time intense, though they learnt a lot. The *Not Research* group (24%) basically do not want to work in research in the future; otherwise they showed similar responses to the first two groups. The last group, *Disengaged* (15%), found the subject difficult and challenging. They did not increase their statistical knowledge or independent thought and disliked the subject most amongst the groups. They were also less likely to be looking to work in analysis and research in the future.

Generally across the groups there was increased statistical learning (85%), encouragement of independent thought (60%) and just under half were on the higher side of likelihood to work in research or analysis in the future (42 %). Some students found the project to be very difficult (19%) with only the 'liked the subject' group (17%) reporting some clarity in the task definition. It was interesting to note no clear gender differences were found in the ratings of the project attributes.

Discussion and Conclusion

The course has been clearly positioned as challenging and practical, with learning outcomes related to understanding of statistics coupled with skill acquisition of a commonly used statistical package. Some students struggled with the level of self direction expected, others enjoy the control they have over the project tasks. So can the less engaged students be motivated without "hand holding"? Can the 'real' world where there are time and resource constraints be a planned element of a student project? Motivation and confidence need to be fostered, as well as setting a challenge to those students who are already enthusiastic. To explore such issues further in depth qualitative methods would be suggested.

The above review has helped to shape some changes in MA for this year. The teaching team is mindful of the balance between encouraging learning and directing learning. However this is offset by an acknowledgement that an inability to comprehend the task requirements may lead to a lack of motivation. This is especially so in an area where they may have little interest or perceive that it is irrelevant to their future.

Changes were implemented in 2005 (session 2): greater emphasis in lectures on statistical theory and practical use of SPSS; use of an a SPSS primer in addition to the research text; earlier scheduling of first descriptive stage of project; an increase in the assessment weighting of the project; tutorial exercises based on the project data base; use of a weekly group journal to help manage and monitor the process; use of self guided exercises and quizzes on WebCT; use of a project chat section in WebCT; sharing results of previous course feedback with current students.

Obtaining feedback from students using several different instruments including an assessment specific survey has helped to gain a deeper practical understanding of the overall student learning environment in Market Analysis. It is important to realise that there is a great variation in the student experience of a subject and that the standard instrument that gives average ratings does not help to gain insight into this diversity. Finally as a teacher you cannot always reach all students, particularly in this subject area!

Table 1: Overall and Student Subgroup Ratings from SES across Market Analysis 2003 and 2004

{ Scale: 1 to 5 }*	Overall Mean	Interested, Benefited, [Engaged]	Some interest, Benefited, but [More Direction]	Interested Benefited, but [Hard going]	Disinterested , but Benefited, [Not Research]	Disinterested, ? Benefited, [Disengaged]	F stat. / p values
Subgroup Size { % }		17	25	19	24	15	
/ Easy <i>Difficult</i>	1.8	2.0	2.2	<i>1.0</i>	2.0	1.6	46.1 0.000
/ Not challenging <i>Too challenging</i>	1.9	2.0	2.3	<i>1.2</i>	2.1	1.6	47.1 0.000
/ ↑ stats knowledge <i>No change</i>	4.1	4.3	4.4	4.4	4.4	2.8	44.0 0.000
/ independent thought <i>No scope</i>	3.8	4.2	3.8	4.3	4.1	2.3	64.2 0.000
/ Very enjoyable <i>Disliked</i>	2.5	3.2	2.8	2.2	2.6	1.9	13.4 0.000
/v. clear task definition <i>Ambiguous</i>	2.6	3.6	<i>1.9</i>	2.8	2.6	2.4	21.1 0.000
/ v. time intense <i>No time pressure</i>	1.4	1.5	1.4	<i>1.1</i>	1.4	1.6	4.1 0.003
<i>Irrelevant</i> / Relevant	3.0						0.7 0.594
<i>Uninteresting</i> / Interesting Topic	3.1						1.4 0.218
Likelihood to work in research in future	2.7	3.8	3.3	2.4	<i>1.7</i>	2.2	71.2 0.000
Work in analysis in future	2.5	3.1	3.2	<i>2.2</i>	1.9	2.1	21.4 0.000
Importance of being challenged	3.6	3.9	3.7	<i>3.4</i>	3.5	3.5	3.08 0.017
Change in likelihood to work in area { % Yes }	63	84	67	79	40	51	$\chi^2 = 29.0$ 0.000

* **Bold** used for highest subgroup means, ***Bold*** lowest subgroup means, relative line position indicates mean equivalence on ANOVA.

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