

What Do They Think When We Stack Them In? A Comparative Analysis Of Student Perceptions Relating To Large And Small Marketing Subjects.

Wayne Binney, Victoria University, Melbourne.

John Hall, Deakin University, Melbourne.

Wendy Kennedy, Deakin University, Melbourne.

Abstract

University education is in a period of flux with emphasis being focused on quality education, competition for students both local and international as well as changes in governmental financial support and direction. It is with this scenario as a backdrop, that universities in an endeavour to obtain economies of scale offer subjects with large student enrolments. This study investigates marketing students' perception of and participation in marketing subjects relating to teaching quality, staff availability and support, and individual student involvement in marketing education with large enrolments compared to subjects with small enrolments. This research builds on the investigations of effects of class size by Cuseo (2004) and Binney et al (2004). The study used a multi-method approach. Data from a sample of 621 students was analysed using Factor analysis, MANOVA and ANOVA. Students indicated that there was little difference in the quality of learning obtained in small or large classes. Of interest from a marketing perspective, however, is the perception by students that they are more likely to obtain practical assistance and support from tutors in smaller classes. Student perceptions generally show no major differences between large and small classes in relation to subject selection, ability to learn and lecture attendance. Students expressed a preference for the opportunity to choose from a number of lecture streams available in subjects with large enrolments. Of interest, however is the student belief that they are less likely to actively participate in large lectures than in small lecture environments.

Key words: marketing education, large classes, student satisfaction, and teaching quality

Introduction

University education is in a period of flux with emphasis being focused on quality education, competition for students both local and international as well as changes in governmental financial support and direction. It is with this scenario as a backdrop, that universities in an endeavour to obtain economies of scale offer subjects with large student enrolments. This study investigates marketing students' perception of and participation in marketing subjects relating to teaching quality, staff availability and support, and individual student involvement in marketing education with large enrolments compared to subjects with small enrolments

It is evident that the higher education sector is becoming more competitive and that there are greater expectations placed on institutions to meet the needs of their student clients (Cheng and Tam 1997). Some of the approaches used to address this issue in higher education include quality assurance schemes (Anderson, Johnson and Milligan 2000, ACER 2004; King et al. 1999); studies of student satisfaction (Elliot and Shin 2002; Gremeler and McCollough 2002); and a marketing orientation in which the student is viewed as a consumer whose expectations needs to be addressed (Browne et al. 1998).

Athiyaman (1997) has concluded that all higher education service encounters can be managed to enhance consumer satisfaction, and perceived quality is a function of satisfaction. Despite this, few student satisfaction surveys specifically gather students' perceptions relating to class size (Aldridge and Rowley 1998: CEDS 2004). Studies evaluating the student experience tend to be divided into two broad areas; those that assess teaching and learning aspects and those that assess

the total student experience (Aldridge and Rowley 1998). Deci and Ryan (2000) argue that the fundamental psychological needs of students are important and individuals who have these needs met are better able to learn and perform in an educational environment (Deci and Ryan 2000; Filak and Sheldon 2003). A more recent study reported that these basic needs were not being met for students enrolled in large (introductory) marketing classes (Binney, Hall and Kennedy 2004).

The study of large classes presents many complex issues (Cuseo 2004; Follman 1994; Gilbert 1995; Hanushek 2002; HEROS 2004). Large classes have been studied across a range of disciplines internationally (AACSB 1998; Keil and Partell 1997; Office of Institutional Research 2001). The Teaching and Educational Development Institute at Queensland University, Australia, have reported that there have been relatively few studies reported in Australian universities (TEDI 2001). Large subjects are usually core business subjects, have more than 500 students enrolled, have more than one lecture stream (multiple lecture times) and are usually conducted in large lecture theatres. The management of these classes often requires the close coordination of multiple lecturers and many tutors (with a large proportion being employed on a sessional basis). This is in contrast to subjects with lower enrolments that often have one stream, one lecturer and the lecturer is often involved in conducting tutorials.

In order to evaluate the effects of class size, several studies have attempted to measure the relationship between class size and the level of student achievement. However, results have been inconclusive (Toth and Montagna 2002; Becker and Powers 2001; Scheck 1994). A study by Dommeyer (1997) found that students from large classes were more likely to have a negative attitude towards the size of their class, but their evaluations of the course and instructor were similar to those of students from the small classes. Class size has been reported as being of less importance than the quality of teaching (Papo 1999), as lecturers can be effective in their teaching despite the class size (Melton 1996; Kryder 2002).

Large class settings, commonly used for introductory and core subjects, have been recognised as the one of the main causes of ineffective learning and low retention rates in first year university students (Cuseo 2004; Twigg 2003). Whether students studying marketing also view large classes as an impediment to their learning is worthy of further study. So too is a comparison of student satisfaction levels in large and small classes. The competitive nature of the higher education industry suggests that a greater understanding of student expectations will lead to more effective delivery of education services. The literature discusses the management of large classes and student satisfaction across several disciplines however, there is currently a need for these aspects to be examined to improve the conduct and management of large marketing classes.

The aim of this study was to explore tertiary marketing student perceptions and preferences by comparing the delivery of marketing education in large and small classes. Specifically, the study reports a comparative analysis of factors relating to teaching quality, staff availability, support, and individual student involvement in the educational process.

Methodology

The study used a multi-method approach consisting of a literature review, a qualitative phase involving in-depth interviews with teaching staff; two focus groups and a survey with students who had undertaken introductory level marketing in a large class format. The sequential triangulatory approach is most appropriate for an exploratory study of this nature (Saunders et al. 2003).

The questionnaire used items from the National Course Evaluation Questionnaire (CEQ) (ACER 2005; CEDS 2004) student satisfaction and teaching quality instrument and the Basic

Psychological Needs Scale developed by Filak and Sheldon (2003) which was adapted from Ilardi et al. (1993). Demographic and classificatory questions were also included in the questionnaire. Data for the scaled questions were collected using a five point Likert scale, where 1 represented strongly disagree and 5 represent strongly agree. The questionnaire was pre-tested before being administered to a sample of marketing students during the final week of semester. A non-probability quota sample methodology allowed for representation of students enrolled in large and small classes. The sample of 621 students comprised of 369 (60.3%) students who were enrolled in small classes with enrolments of 150 or less and 243 (39.7%) students who were enrolled in large classes with enrolments of 500 students or more. All students were enrolled in or had completed introductory marketing that has an annual enrolment of about 2000 students. The subject has multiple streams, multiple lecturers and tutors, and up to 50 tutorials a semester. The data was analysed using exploratory factor analysis, MANOVA and ANOVA. Factor analysis was performed using Principal Components Analysis and Orthogonal (VARIMAX) rotation. Each factor was tested for inter-item reliability and consistency using Cronbach alpha. MANOVA is used to assess the group differences across multiple metric dependant variables simultaneously. In this case each of the constructs was tested separately with regard to class size. Box's test was used to assess the homogeneity of covariance in the two groups of students. ANOVA was used to assess differences with regard to class size relating to each of the variables in each of the constructs.

Results and Discussion.

Table 1: Summary of student survey results

Main Issues	Sub-issues	Survey questions	Mean score (1-5)
Perceptions of large classes	Perceived advantages	I like subjects that have more choice in the lecture times.	4.3
	Perceived disadvantages	I feel that I learn less in large classes.	2.9
		I am more distracted in large lectures.	3.2
My concentration is adversely affected in large classes.		3.1	
Participation in large lectures	Preferences in subjects with large enrolments	I prefer to enrol in subjects that have small numbers of enrolments.	3.3
		I try to avoid selecting lecture streams with large numbers of students.	2.6
		There is really no difference in the ability to learn the required material in subjects with large enrolments than in the smaller subjects in my course.	3.2
	Large lecture attendance	I don't like attending lectures when there is a large number in the lecture theatre.	2.9
		I would say that I miss more lectures in subjects that have large enrolments than subjects with small enrolments	2.8
	Student involvement in lectures	Student involvement in lectures	It doesn't worry me if the lecturers for subjects with large enrolments are less likely to get to know me.
I feel more isolated in large lectures.			2.9
I feel as though I can be unnoticed in a subject with large enrolments.			3.3
I am less likely to ask questions in large lectures than I otherwise would in a small lecture.			3.8

Table 1 identifies students' perceptions regarding large classes. The average for all students is presented to gain general student insights relating to large subjects. It should be noted that

students do not believe that they learn less, are more distracted or that their concentration is adversely affected in large classes. Neither do students try to avoid lecture streams with large numbers of enrolments. Students do not have a preference for enrolling in subjects with small numbers and do not consider that the size of the subject enrolment influences the ability to learn the required material. With regard to involvement in large classes students do not believe that they are more isolated, unnoticed or less known to lecturers in large classes. However students do believe that they are less likely to ask questions in large classes and prefer the choice of lecture times associated with large classes.

An exploratory factor analysis produced four constructs with Eigen values greater than 1: *Teaching Quality*, *Tutor Support*, *Practical Assistance* and *Student Input*. The variables that comprise each of the factors are presented below:

Factors and Variables

Teaching Quality: Very satisfied with subject, the subject was very rewarding, the teaching methods helped me gain a good understanding, the subject was a stimulating#, the subject was well-organised, the teaching methods were appropriate, I enjoyed the challenges, I had a sense of accomplishment in the subject, the teaching was better than in other subjects.

Tutor Support: The tutor cared about me*, the tutor cared about my progress*, the tutor was pretty friendly towards me* the tutor understood me *, the tutors provide enough help to individual students when required.*

Practical Assistance: If I had a problem in this subject with a learning matter (e.g. assignment) I could obtain appropriate assistance if I required it#, if I had a problem in this subject with practical considerations (e.g. tutorial time) I could obtain appropriate assistance if I required it*,

Student Input: In this subject, my point of view was given adequate consideration when I presented it.*, I was free to express my opinions in this subject.*

* sig diff.05, # sig diff.01.

The four factors accounted for 69.3% of variance and had acceptable Cronbach's Alpha, ranging from .67 to .89. *Teaching Quality* was the predominant factor explaining 44% of the variance, as shown in Table 2.

Table 2: Factor analysis and analysis of variance by student groups

		Factor			
		Teaching Quality	Tutor Support	Practical Assistance	Student Input
Factor Analysis	Reliability	.89	.67	.78	.74
	Variance (Total cumulative 69.3%)	43.9	12.5	7.0	5.9
Multivariate Analysis of Variance	Box's Test	.001	.019	.143	.058
	Pillai's Trace	.001	.000	.000	.000

Box's test confirmed the appropriateness of a MANOVA for each construct. The MANOVA analysis found that each of the four constructs showed significant differences between students enrolled in large marketing classes and those enrolled in small marketing classes, as is shown in the Multivariate results in Table 2.

An inspection of the means for each construct showed a clear difference in ratings with students in small classes showing a higher mean than students in large classes on the constructs Tutor Support (small class 3.7, large class 3.2), Practical Assistance (small class

3.7, large class 3.5), and Student Input (small class 3.8, large class 3.6). With regard to tutors being friendly, caring, students being understood and providing individual help to students this was noticeably and significantly higher in small classes. Practical assistance with regard to learning matters and practical considerations was perceived to be more available in smaller classes. While student input relating to students feeling free to express opinions and due consideration been given to their viewpoint was more likely in smaller classes.

The differences between small and large classes on the construct Teaching Quality was also statistically significant, however, the means were less differentiated in practical terms than the other three constructs (small class 3.57, large class 3.58) and little practical difference was noted on any of the variables that make up the quality construct. Overall, student means from both groups reflected a reasonable level of satisfaction within the constructs identified and the more positive perceptions observed in relation to small classes are worth noting.

Conclusions

Students indicated that there was more *Tutor Support*, *Practical Assistance* and *Student Input* in small classes than in large classes. Also, they noted that the tutors for their smaller classes were friendly, caring, understood them and provided individual help for them. This confirms the findings of Dommeyer (1997) who reported negative attitudes to large classes.

Student perceptions generally show no major differences between large and small classes in relation to their subject selection, ability to learn and lecture attendance. However, there was a slight preference for the choice of lecture times offered by subjects with large enrolments, as students like the opportunity to attend lectures and tutorials at more personally convenient times. Feelings of isolation in large classes or a desire to be better known by the lecturer were not evident. Of interest, however is the student belief that they are less likely to ask questions in large lectures than in the small lecture environment.

As many marketing classes, especially introductory marketing classes use a large class format, these findings are particularly important for marketing educators. Importantly students indicated that there was little difference in the quality of learning obtained in small or large classes. However, students from the large classes have identified less satisfaction with their tutors. This may be overcome through a more intensive system of monitoring the quality of education provided by tutors in large subjects and addressing quality issues as they arise. Especially given that many of the tutors in large classes are sessional. Students also have less satisfaction in large classes with regard to pragmatic concerns relating to obtaining assistance with educational and practical problems. Universities need to ensure that academic and administrative staff are available to deal with these problems adequately. While this study provides some specific information about student concerns with large classes, there is an opportunity to successfully use the large class format providing these concerns are addressed. The findings provide managerial information for course leaders and an opportunity to enhance their ability to meet the expectations of students in a competitive industry..

References

- AACSB (The Association to Advance Collegiate Schools of Business) 1998. Study highlights the influences on student satisfaction in Undergraduate programs. Retrieved December 2003, <http://www.aacsb.edu/publications/printnewsline/NL1998/wnstudents.asp>.
- ACER, 2005. Analysis and Reporting of the Course Experience Questionnaires http://www.acer.edu.au/research/Current_projects/course_experience.htm. Retrieved June 2005.
- Aldridge S., and Rowley, J., 1998. Measuring customer satisfaction in higher education. *Quality Assurance in Education*, 6 (4) 197-204.
- Anderson, D., Johnson, R., and Milligan, B., 2000. Quality Assurance and Accreditation in Australian Higher Education: An assessment of Australian and international practice. Centre for Continuing Education, The Australian National University: Canberra, Department of Education, Training and Youth Affairs (DEETYA).
- Athiyaman, A., 1997. Linking student satisfaction and service quality perceptions: the case of university education. *European Journal of Marketing*, 31 (7).
- Becker, W., and Powers, J., 2001. Student Performance, attrition and Class Size Given Missing Student Data. *Economics of Education Review*, 20 (4) 377-88.
- Binney, W., Hall, J. and Kennedy, W., 2004. Self-determination theory and needs satisfaction in marketing education: Are we meeting the needs of students in large marketing classes? Proceedings ANZMAC Conference Wellington, NZ.
- Browne, B., Kaldenburg, D., Browne, W. and Brown, D., 1998. Student as a Customer: Factors Affecting Satisfaction and Assessments of Institutional Quality. *Journal of Marketing for Higher Education*. 8 (3), 1-14.
- CEDS (Centre for Educational Development and Support) 2004. Using the Student Evaluation of Teaching (SET) and Student Evaluation of Subjects (SES) Questionnaires. Melbourne: Centre for Educational Development and Support. Victoria University, Melbourne, Aust.
- Cheng, Y. C. and Tam, M. M., 1997. Multi-models of quality in education. *Quality assurance in education*. 5, 22-31.
- Cuseo, J., 2004. The empirical case against large class size: Adverse effects on the teaching, learning and retention of first year students. Retrieved June 2005, <http://www.brevard.edu/fyc/listserv/remarks/cuseoclasssize.pdf>: Policy Centre on the First Year of College, Brevard College, North Carolina.
- Deci, E. and Ryan, R., 2000. The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*. 11 (4), 227-68.
- Dommeyer, C., 1997. Class Size in an Introductory Marketing Course: Student attitudes, Evaluations, and Performance. *Marketing Education Review*. 7 (1).

- Elliot, K. M. and Shin, D., 2002. Student satisfaction, *Journal of Higher Education Policy and Management*, 24 (2), 197-247.
- Filak, V.F. and Sheldon, K. M., 2003. Student Psychological Need Satisfaction and College Teacher-Course Evaluations. *Educational Psychology*. 33 (3), 235-47.
- Follman, J., 1994. The conundrum of class size at the college level, *The College Quarterly*, 2 (1).
- Gilbert, S., 1995. Quality Education: Does class size matter? Research File: Association of Universities and Colleges, Canada. 1 (1).
- Gremeler, D. and McCollough, M., 2002. Student Satisfaction Guarantees: An Empirical Examination of Attitudes, Antecedents, and Consequences. *Journal of Marketing Education*. 24 (2), 150-60.
- Hanushek, E. A., 2002. Evidence, politics, and the class size debate, in *The Class Size Debate*. L. Mishel and R. Rothstein (eds), Ed. Washington D.C.: Economic Policy Institute.
- HEROS, 2004. Class size research. Retrieved January 2004 <http://www.heros-inc.org/classsizeresearch.htm>: Health & Education Research Operative Services Inc.
- Keil, J. and Partell, P., 1997. The effect of class size on student performance and retention at Binghamton University. Binghamton, New York: Office of Budget & Institutional Research, Binghamton University.
- King, M., Morrison, I., Reed, G. and Stachow, G., 1999. Student feedback systems in the Business School: a departmental model. *Quality Assurance in Education*. 7 (2), 90-100.
- Kryder, L., 2002. Large Lecture Format: Some Lessons Learned. *Business Communication Quarterly*. 65 (1).
- Melton, R., 1996. Learning outcomes in higher education: Some key issues. *British Journal of Educational Studies*. 22 (4) 409-425.
- Office of Institutional Research, 2001. Class size and student achievement: The continuing puzzle, in Research report No 01-01. Annandale, Virginia: Office of Institutional Research, Northern Virginia Community College.
- Papo, W., 1999. Large class teaching: Is it a problem to students? *College Student Journal*, 33 (2), 354-2358, retrieved June 2005.
- Saunders, M., P. Lewis, and Thornhill, A., 2003. *Research Methods for Business Students* (3rd Ed. ed.). Sydney: Prentice Hall.
- Scheck, C., and Kinicki, A., 1994. The effect of class size on student performance: Development and assessment of a process model. *Journal of Education for Business*. 70 (2) 104-112.

TEDI, 2001, AUTC Project: Notes on the 1st National workshop, University of Newcastle, July 8, 2001. Brisbane: Teaching and Educational Development Unit, The University of Queensland.

Toth, L., and L., Montinga, 2002, Class Size and Achievement in Higher Education: A Summary of Current Research. *College Student Journal*. 36 (2), 253-261.

Twigg, C. A., 2003, Improving quality and reducing cost: designs for effective learning. *Change*. 35 (4) 23-29.