

Block or traditional? An analysis of student choice of teaching format

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ABSTRACT

Block (or intensive) teaching is used by many management schools, but the factors that drive students to choose (or avoid) block subjects are not well understood. This paper reviews the research findings on intensive teaching and analyses the factors which predict student choice between different teaching formats, based on an analysis of qualitative and quantitative survey data. If studying one subject at a time, a majority of students appear to prefer a less intensive format. However the results show that three factors influence students' likelihood to choose the block format: their experience with the format, their perception of their ability in a particular subject and their concurrent subject load. There are also subject specific differences in student preferences. Implications for block scheduling and for actions to address perceived disadvantages of the block method are addressed.

Keywords: block; intensive; traditional format; student choice

Intensive or 'block' courses have become increasingly common in higher education, particularly in post-graduate business courses (Davies 2006). In Australia, Commonwealth government grants funding to universities has fallen from 56% in 1996 to 37.5% in 2003 (Australian Vice-Chancellors' Committee 2004). In response, universities have been forced to become more commercial, developing courses which will be attractive to fee paying students. These students (especially in business schools) are often studying part-time, balancing the demands of work, family life and study and typically do not find standard course formats convenient or attractive (Davies 2006). Alternatives to standard weekly courses have been around for many years: for example Grant (2001) refers to a history of block teaching

of more than 25 years at Colorado College in the United States. However the preference of part-time, working students for more flexible modes of delivery means that intensive teaching has become increasingly common, with Davies (2006) suggesting that intensive courses are 'an idea whose time has come'. Most Australian business schools use some form of intensive course for post-graduate students, either for locally taught classes and/or when teaching courses overseas. Intensive, short duration courses have particular advantages for universities offering offshore teaching, since this format allows faculty to fly in and teach a full course in an intense burst. Growth in demand for offshore teaching has thus led to a commensurate rise in the use of intensive teaching; in 1999, there were 581 offshore pro-

grams offered by Australian universities mostly taught using intensive teaching and by 2003, this had grown to just under 1600, primarily in China, Singapore and Malaysia.

Intensive teaching thus has advantages for both students and universities, but despite its growing use by Australian universities, particularly in management schools, a review by Davies (2006) reported relatively few studies of intensive teaching formats in management education. He noted a complete lack of Australian journal research in this area, with the bulk of the research coming from the US, where the educational system is arguably different. The existing research has typically studied student reactions to a single intensive course (eg Grant 2001; Kasworm 2001) and data is typically collected immediately after a course ends, which may not reflect long term effects of such courses (Daniel 2000). Assessment of a single course at a single point in time in previous research also fails to provide any information about how student choice of format might vary across different subject areas, despite suggestions that the intensive format is more popular with students for certain subjects. Similarly, the single course study provides no information about how student reactions to intensive teaching may change as students become more experienced with study and/or with the intensive format. Answers to these questions can help universities and their management faculties respond to student preferences for intensive and/or traditional courses, prepare students for intensive courses, and also assist in managing student expectations of these courses. In response to the limited research into intensive teaching, Daniel and Davies (2006) have called for more research, and this research responds to those calls, by investigating the factors influencing students' preferences for intensive courses and how those preferences change (if at all) as students become more experienced with these courses. In particular, using a cross-sectional survey of management students with different characteristics and experience, we investigate

how student characteristics (age, gender and perceived ability in a subject) student experience (study load, number of subjects completed and experience with intensive teaching) and subject specific factors influence students' preference for intensive teaching. The paper is structured as follows: the first section provides a brief review of previous research in this area; the second section presents the study and its findings, and the third section discusses the results and the implications for universities and their management faculties.

LITERATURE REVIEW

'Traditional' courses usually follow a pattern where students meet at least once per week over a semester. However there is substantial diversity in the alternatives described in the literature. Courses which have been describe as 'non-traditional', 'intensive' or 'block' include variations such as five successive full days, six successive days or three hours a day for 18 days. Other authors have described less intensive, but non-traditional, formats such as weekly classes of nearly three or four hours a week for five to ten weeks. The main characteristic of these intensive courses appears to be that an equal number of class hours is delivered in more concentrated bursts, compared to the more traditional pattern of classes once or twice a week. Since there is no clear distinction in the literature between 'non-traditional', 'intensive' or 'block' courses, this paper uses the term 'block' classes for the intensive format, consistent with Gose and Grant and also consistent with the term used at the university where the study was conducted.

Educational outcomes in non-traditional course schedules

Educational outcomes of block courses have typically been compared with traditional courses by comparing student results on course assessment, and/or student satisfaction. Assessment by this method is confounded, however, by the fact that when different formats are offered, students are likely to have at least some capacity to choose the

format they prefer, so any difference in results cannot be separated from any bias caused by self-selection. Random assignment of students has been suggested by Daniel, in order to overcome this problem and to thus allow better evaluation of intensive courses. However random assignment of students to traditional or block classes is unlikely to be acceptable to students, ethics committees or to universities, given the normal practice of allowing students to choose between available alternatives. Moreover, student choice of format allows students to select the schedule that they believe will best suit their learning style. Nevertheless, most studies have suggested that intensive courses result in equivalent, or better, learning experiences on a range of measures of interaction, student commitment, and academic performance. Isolated studies have reported lower results in intensive summer courses, however these findings are inconsistent with the bulk of the findings on intensive courses. Given the complexities in comparing educational outcomes when students are free to choose the format, this study does not attempt to compare student performance in the two formats. Instead, it analyses the factors underlying students' stated choice of block units and which are likely to influence demand for and supply of block units.

The limited discussion of non-traditional course formats in the literature has tended to reflect examples of isolated block courses, offered to students in one subject only, as an alternative to the dominant format of a traditional course structure. Under these circumstances, where the block course is a novel experience, the alternative format may appeal to particular students (for example those who want to try something different) and may be less attractive to students who are more conservative in their choices. However as discussed above, block courses are now a standard feature of post-graduate management education at many universities. Therefore, it is not clear if the findings of early studies evaluating the format when it was still novel, and possibly only chosen by students who preferred the for-

mat, are representative of today's students' attitudes. This study thus proposes and tests a number of hypotheses concerning student choice of block courses and compares the findings from both qualitative and quantitative responses by students with varying experience in the block format.

HYPOTHESES TO BE TESTED

Student characteristics and the block format

Early studies of non-traditional courses suggested that the format was more attractive to three types of students; those who are older, those studying part-time and those who are working. Smith has suggested that the format is more appropriate for select groups of students, rather than for the entire student body, but there is little guidance beyond these demographic descriptions as to which students prefer might blocks. In addition, as discussed above, the much wider exposure of today's students to block teaching may mean that results of earlier studies are no longer relevant for modern management students. We thus test specific characteristics concerning age, part-time study and work status in Hypotheses 1–3.

H1: There will be no difference in preference for block courses according to student age.

H2: There will be no difference in preference for block courses by students studying part-time compared to those studying full-time.

H3: There will be no difference in preference for block courses by students working compared to those not working.

Subject characteristics

Previous research has suggested that certain subjects are more appropriate for a block format. For example, although Van Scyoc and Gleason found that students who had studied macroeconomics in an intensive format performed as well as or

better than students in a traditional format, Petrowsky reported that students in an intensive macroeconomics course had lower scores, found the experience stressful, and believed that they would have learnt more in a traditional format. Grant suggested that 'block courses work well for humanities and social science courses' based on 'conclusions from...discussions' at a seminar on block courses reporting on 25 years of block teaching experience. However, Scott (1994) reported differences between humanities and social sciences subjects, suggesting that Marketing students responded better than English students to intensive courses. In response to these mixed findings, we compare student preferences for block format across three business subjects: Accounting (a largely numeric subject), Human Resources Management (which does not require proficiency in numeric skills) and Marketing (which requires an intermediate level of numeric skills), resulting in Hypothesis 4:

H4: There will be no difference in student preference for block courses across three different subjects.

Student experience

The block format has been reported as causing some fatigue, stress and nervousness among students and it has been suggested that preferences for the format may change as students' experience with the format increases. In addition, as students take more courses, they become more experienced in the study process and may become less stressed by novel formats and thus more likely to choose a block course. We therefore test for changes in preference for the block format as students become more experienced with a particular subject and/or with the format. Specifically, in Hypothesis 5, we test whether student preferences for a particular subject in a particular format change after students have taken the subject. In Hypothesis 6, we test whether students who have taken any one block course show a greater preference for subsequent block courses.

H5: There will be no difference in preference for course format between students who have taken and those who have not taken, a particular subject.

H6: There will be no significant association between student experience of, and preference for, a block course.

Perceived ability

As discussed previously, any attempt to compare the results of students in different course formats will be confounded if students have the ability to choose between the formats. Some studies have reported equal or better results by students taking intensive courses, while others have reported the opposite (eg Petrowsky 1996). It is possible that any finding of higher results in intensive courses may be explained by selective choice of the format, since students who feel more confident in a particular subject may be more likely to choose an intensive format for that subject and vice versa. This suggestion is supported by the findings of Petrowsky that some students find block courses stressful, suggesting that students who feel that they are less competent in a subject may be less likely to choose a block format for that subject. Results of students who study in the traditional format might then be lower than those who study by block format due to selection of the traditional format by students who believe (possibly correctly) that they have lower ability in the subject. We test this possibility that students will be more likely to choose a block course if they feel more competent in the area by comparing the mean perceived ability of students with three different course preferences (block, weekly, and no preference) across three specific subjects (Accounting, Human Resources Management and Marketing).

H7: There will be no difference in the mean perceived ability of students nominating different course preferences.

Subject load and subject format preference

Previous research into student preferences for an intensive format has examined students' choice of format independent of any other subjects that they may be taking at the same time. If students are taking only one subject at a time, this appears reasonable. However many students take more than one subject in a term and it is likely that their preferred format may be influenced by their subject load, and/or by the format of other subjects they are taking. Examining students' preference for a block subject without considering any other concurrent subject choices may thus result in an unrealistic assessment of student preferences under actual course conditions. We therefore compare preference for a block course under different subject loadings.

H8: Preference for a block course will not depend on the number of other subjects undertaken in the same term.

METHODOLOGY

The study was conducted using a survey of students enrolled at an Australian post-graduate business school with a long (more than fifteen years) history of block teaching. The school offers a Master of Business Administration (MBA) and Masters, Diploma and certificate programs in Management. All subjects making up these courses are taught at the same MBA level. Most courses at the institution (approximately 60%) are taught by a more traditional weekly structure, with the most common teaching pattern being a four-hour weekly class for ten weeks. Most of these classes are taught at night, to suit the school's primarily part-time students, but some weekly day classes are also offered. Block courses constitute the balance of courses (approximately 40%). These block classes are usually composed of five full day (eight hour) classes on a successive Friday, Saturday, Sunday, followed by a free weekend, then full days on the following Saturday and Sunday. A small number

of blocks follow different patterns, such as five successive days, or one day a week for five weeks and offshore blocks use a mixture of evenings and full days, but the predominant feature of blocks is full-day weekend teaching. Student work in a block course is not confined to the period of the block. As with the weekly format, students receive course materials at the start of the ten week term and would usually have two to three weeks to complete pre-course reading and course preparation before the block classes start. Following the completion of the block classes, students have several weeks to complete post-course assignments and to prepare for an examination.

At the Australian campus where the study was conducted, the majority of subjects are offered by both block and weekly format, so students can usually select whichever format they prefer. One compulsory subject on the MBA is only offered by weekly class (due to the presenting academic's choice), but it is possible to complete the MBA doing all but this one subject in a block format. In practice, most students take a mixture of block and weekly subjects, providing a valuable opportunity to assess the factors that influence student demand for block courses and to analyse how evaluations of blocks change as students become more experienced with the format. The study thus compares students' preferences for the 'weekly' (ten week structure) compared to the 'block' (five day) format.

Sample

Following a review and approval of all aspects of the study by the university's ethics committee, all students currently enrolled in post-graduate management award subjects were asked to complete a survey concerning their choice of teaching format under different conditions. Surveys were distributed in 45 out of 46 classes held in one term, for a total sample of 1089 students. Students were informed of the aims of the study and invited to complete the survey. No incentives were provided. 944 responses were received, rep-

representing a response rate of 86.7%. The survey contained scale items and open-ended questions (as detailed below), thus allowing analysis of both quantitative and qualitative data. This mixed methods approach was designed to allow both statistical analysis of the factors underlying students' choice of format and to further probe the reasons underlying those choices by an analysis of students' own explanation of their choices, as expressed in their responses to open-ended questions.

Measures

Data were collected for demographic characteristics of respondents: age, gender, work and study status (ie full time or part time) using ordinal scales for age and categorical scales for gender, work and study status. Other measures assessed progress in the course and student experience with the block format (assessed by the number of subjects completed by each format) and whether students had completed the three subjects under particular investigation (Accounting, Human Resources Management (HRM) and Marketing). Student preferences for different formats were examined using a series of categorical scales, asking student preference for a block or weekly course under different circumstances: 1) for the subject in which the survey was given out; 2) for three specific subjects (Accounting, HRM and Marketing) if they were taking only one subject per term; and 3) for a given pair of subjects in one term (Accounting and Marketing). Full details of these questions are contained in Appendix 1. Students' perceived ability in Accounting, HRM and Marketing was measured on a seven point semantic differential scale: 'much worse than average' (-4), 'much better than average' (+4), with a neutral mid point 'about average' of zero.

Two open-ended questions probed for any particular reasons that students preferred block or weekly classes, in the format 'Are there particular reasons, or particular circumstances, when you prefer block (weekly) classes?' A final ques-

tion asked for any additional comments. Responses to these open-ended questions were used to investigate the reasons underlying the stated preference for a particular format.

Data analysis

The data were initially screened for data cleaning purposes and checked for any out of range errors or patterns in missing data. All responses were within variable limits and for all questions except the three questions regarding perceived ability in the three subjects, there was a low level of missing data (less than 2%). Responses to perceived ability in the three subjects showed a higher level of missing data (4.6–5.3%), so these variables were further investigated to determine if there was any pattern of missing data which could lead to bias in the results. Subjects with missing data on these variables were compared on all other variables to subjects without missing data. There were no significant differences between the groups in responses to other variables with one exception; subjects with missing data on 'perceived ability in HRM' reported a lower 'perceived ability in Marketing' ($P = 0.036$). However given the large number of comparisons performed in the missing data analysis (15) it is possible that this difference was due to chance. With the possible exception of this variable, the data thus appeared to have data missing at random, providing no evidence of bias due to missing data. Missing data values were excluded from subsequent analyses.

Quantitative data were analysed using a range of tests according to the nature of the data (ie Chi-square for frequency analysis, t -tests and ANOVA for comparison of means, logistic regression for prediction of a categorical variable and binomial tests of proportions.) Responses to the open-ended questions were analysed using content analysis, since it is suitable for systematically evaluating the symbolic content of all forms of recorded communications.

For the qualitative analysis of open-ended questions, a random sub-sample of completed

surveys was first examined to identify themes in the answers to the open-ended questions. A coding sheet of themes was then developed in an iterative process among three coders to assist in identifying and tallying the themes expressed. Small samples of surveys were assessed by the three coders, themes identified and a comparison was made of the three assessments. Differences were discussed and the coding sheet was adjusted to reflect mutual understanding of themes. A further sample of surveys was coded and re-discussed, in an iterative process until there was agreement on the themes identified. These themes were then used to develop a coding key for the assessment of the remaining surveys. Coding of qualitative surveys was conducted by a research assistant who was involved in the development of the coding key. Inter-rater reliability was assessed by comparing the assistant's theme ratings with a second rating for a sub-sample of surveys. Disputes were discussed, resolved by discussion and the coding sheet was modified. The process was continued until there was agreement on the coding. In addition, randomly selected surveys were examined by one of the researchers to ensure ongoing rating reliability. The theme scores were summated to develop descriptive accounts of the thematic issues revealed by answers to the open-ended questions. Since there

was a large number of surveys, it was decided to analyse the qualitative comments for every second survey. Thus the qualitative findings are based on 50% of the surveys (375 surveys).

RESULTS

Respondent characteristics

Reflecting the post-graduate nature of the course, respondents were typically studying part-time (84.6%) and working (85.8%, including 5.1% working part-time). The mean age of respondents was 33.95 years (SD = 6.3) and the majority were male (63.2%). The mean number of courses already completed by students was 5.1 (SD = 4.2) (out of 16 courses required for an MBA). Most of these were weekly courses (mean = 3.25, SD = 3.0), though 57.7% of students had taken at least one block course (mean = 1.75, SD = 2.2).

Format preference for the subject that students were undertaking when they were given the survey was compared across demographic measures (age, gender, work and study status) and student experience (number of subjects completed). The results are summarised in Table 1. There were no significant differences in format choice according to gender, study status or age, but there was a weak trend ($P = 0.09$) for a

TABLE 1: COMPARISON OF CHARACTERISTICS OF THOSE PREFERRING BLOCK OR WEEKLY FORMAT

	Mean (SD) of those choosing block		Mean (SD) of those choosing weekly		<i>T</i>	<i>P</i>
Age	33.97	(6.1)	33.93	(6.4)	0.09	0.927
No of subjects completed	6.27	(4.1)	4.29	(4.1)	7.23	<0.001
	% choosing block		% choosing weekly		Chi-square	<i>P</i>
Gender	Male 38.7		Female 39.7		0.080	0.78
Study status	Full-time 33.8		Part-time 39.6		1.74	0.187
Work status	Working 40.0		Not working 32.3		2.29	0.09

higher percentage of students working full time to prefer block courses. Hypotheses 1 and 2 were thus supported, with marginal support for rejecting Hypothesis 2. There was a significant difference in the average number of subjects completed between the two groups; students choosing a block course had completed a significantly larger number of courses ($P < 0.001$), suggesting some association between the number of subjects completed and preference for a block course, either due to experience with the block course itself, or due to increased experience with courses in general. The effect of student experience on format preference was further investigated under different study conditions and is discussed in more detail later in the paper.

Course format preference for different subjects

Students were asked their preferred course format for three specific subjects (Accounting, Marketing and HRM). In order to provide context for the question, they were firstly told to assume that they were doing only one subject per term. The results are shown in Table 2. For each subject, weekly format was the preferred format, ranging from 73.7% of students preferring a weekly format for Accounting, to 51.2% for HRM. There were also significant differences in the proportion of students choosing block courses across subjects; a significantly lower number of students would choose Accounting by block than either Marketing ($Z = 7.8, P < 0.001$) or HRM ($Z = 10.1, P < 0.001$). Hypothesis 4, that there would be no difference in student preferences for block courses for different subjects, was thus rejected. HRM was the most likely of the three subjects to

be chosen by block, with a significantly higher proportion of students choosing to do it than Marketing ($Z = 2.1, P < 0.025$).

The effect of experience on format preference

Table 2 suggests that there may be two distinct preference segments among students; the majority, who prefer weekly courses and a smaller proportion who prefer the more intensive block format. Since the block format is novel for most students, it is possible that their preference for the format may change after they have experienced the format. This view is supported by the finding (from Table 1) that students preferring a block course for their current subject had, on average, completed a higher number of courses than those who would prefer a weekly course. Logistic regression predicting block preference by the total number of courses completed showed a significant and positive association between the number of courses completed and the probability of choosing a block course ($P < 0.001$). It is not clear, however, whether this effect is due to increasing experience of and preference for a block course, after more courses are taken (of which some are likely to be block courses) or whether the effect is due to increased familiarity with study in general, and thus decreased nervousness in choosing a relatively unfamiliar format. The effect of experience was therefore further assessed in two ways; firstly by comparing stated preferences for a block format for three specific subjects by students who had done each subject, with those who had not (Table 3) and secondly, by comparing preference for a block format across subjects (for each student, the sub-

TABLE 2: NUMBER AND PERCENTAGE PREFERRING A BLOCK COURSE IF DOING ONE SUBJECT PER TERM

	Block		Weekly		No preference	
	n	%	n	%	n	%
Accounting	193	20.8	685	73.7	51	5.5
Marketing	342	36.9	474	57.2	63	5.8
HRM	389	42.0	530	51.2	54	6.8

TABLE 3: THE EFFECT OF COURSE EXPERIENCE ON PREFERENCE FOR A BLOCK COURSE FOR THAT COURSE

	% preferring block Not completed subject	Difference Completed subject	Z	P
Accounting	22.3	22.0	0.09	0.929
HRM	31.3	50.5	4.83	<0.001
Marketing	17.5	23.7	1.92	0.055

ject where the survey was handed out) by students who had completed, and those who had not completed, a block course (Table 4).

For the three specific subjects studied, experience with Marketing and HRM (by whatever format) led to increased preference for a block course, as shown in Table 3. After doing HRM, students were significantly more likely to express a preference for a block format ($P < 0.001$) and for Marketing, there was a trend for increased preference ($P = 0.055$). In contrast, for Accounting, there was no change in the very low rate of preference for a block format after experience of the subject ($P = 0.929$). The results thus provide mixed support for Hypothesis 5: experience with two subjects (HRM and Marketing) increased preference for a block course (significantly in the case of HRM and almost significantly for Marketing). In contrast, for Accounting, experience with the subject did not result in any change in (the existing low) preference for a block course in this subject.

Across all subjects, there was evidence (see Table 4) that experience with the block format increased student preference; students who had taken at least one block course were significantly more likely to prefer a block course format for the course they were currently studying (48.6%) than those who had not taken a block course (25.3%) ($Z = 7.63$; $P < 0.001$). The result from Table 1 that students

preferring block study had, on average, completed further subjects provides additional evidence that increased student experience with block teaching increases preference for the format. Thus, although there appear to be subject specific factors (with experience of Accounting not resulting in any higher preference for Accounting by block format), increased experience of block courses was therefore associated with increased preference for a block course. Hypothesis 6 was thus rejected.

The effect of perceived ability on format preference

The effect of students’ beliefs about their own ability in a particular subject on format preference for that subject was compared across those choosing block, weekly, and those without preference (see Table 5). The results show strong support for an effect of perceived ability on format choice. For all three subjects, students preferring a block course rated themselves as having significantly higher ability on that subject than students preferring a weekly course. Hypothesis 7 was thus rejected.

The effect of subject load on format preference

The effect of a student’s subject load was assessed by asking students their preference for block or weekly courses for two specific subjects (Accounting and Marketing) under two conditions; firstly if

TABLE 4: THE ASSOCIATION BETWEEN BLOCK FORMAT EXPERIENCE AND PREFERENCE FOR A BLOCK COURSE

	Done a block course: yes/no			
	No		Yes	
Preferred format	n	%	n	%
Weekly	298	74.7	280	51.4
Block	101	25.3	265	48.6

Chi-Square = 54.06, DF = 1, $P < 0.001$

TABLE 5: PERCEIVED SUBJECT ABILITY AND PREFERRED FORMAT CHOICE

Subject	Mean ability (SD) of those choosing block		Mean ability (SD) of those choosing weekly		Mean ability (SD) of those with no preference		F	P
Accounting	1.38	(1.14)	0.59	(1.53)	1.68	(1.22)	27.90	<0.001
HRM	1.10	(1.14)	0.77	(1.15)	0.73	(1.00)	9.13	<0.001
Marketing	1.12	(1.09)	0.84	(1.11)	0.76	(1.25)	6.95	0.001

they were taking only one of these subjects each term and secondly if they were taking the two subjects in the same term. The proportions choosing to take a block course under each condition were then compared, with the results shown in Table 6. Taking only one subject per term, the majority of students chose to take both subjects by weekly format (73.7% and 57.2%). If they were taking two subjects per term, the low percentage who preferred Accounting by block did not change ($Z = 0.76$, $P = 0.448$). However the majority (52.1%) preferred to do Marketing by block under these conditions, resulting in a significant increase in preference for the block format ($Z = 6.65$, $P < 0.001$). Thus Hypothesis 8, that preference for a block course will not depend on the number of other subjects undertaken in the same term, was rejected.

The results of all hypothesis tests are summarised in Table 7.

Qualitative Analysis

Of the 375 surveys examined for qualitative analysis, 335 (88%) made a comment on at least one of the three open-ended questions (general reasons for preferring block/weekly classes and general comments).

Reasons for preference for block courses

When asked if there were particular circumstances when they would prefer blocks, the most common reason was to fit in with what were coded as 'lifestyle' factors, including work/travel (91 responses), social/family (27 responses) or to complete the course faster (27 responses). Overall, 170 (45.3%) of responses suggested that block preference was driven by lifestyle reasons. Typical comments included;

- Saves travelling time. Easier with family commitments.
- Working full-time. Fits in with work/life balance.
- To complete unit as quickly as possible to free up time for other commitments.

The second main theme in choice of block courses was the specific content of the course. In particular, there were a large number of responses suggesting that block courses were preferred when the subject was seen as easier, or when the student had prior experience in the subject area (60 responses). Typical comments included:

- When I have some knowledge/capability relative to the course content.

TABLE 6: THE EFFECT OF SUBJECT WORKLOAD ON FORMAT PREFERENCE

		% choosing			P difference (choose block)
		Block	Weekly	No preference	
Accounting	One subject only	20.7	73.7	5.5	0.448
	With Marketing	22.2	73.6	4.2	
Marketing	One subject only	36.9	57.2	5.8	<0.001
	With Accounting	52.1	42.8	5.1	

TABLE 7: SUMMARY OF HYPOTHESIS RESULTS

Hypothesis	Result
1 <i>There will be no difference in preference for block courses according to age</i>	Supported: See Table 1.
2 <i>There will be no difference in preference for block courses by students studying part-time compared to those studying full-time</i>	Supported: See Table 1.
3 <i>There will be no difference in preference for block courses by students working compared to those not working.</i>	Qualified support: There was a trend ($P = 0.09$) for those working full time to choose a block course. See Table 1.
4 <i>There will be no difference in student preference for block courses across three different subjects</i>	Rejected: preference for HRM by block was significantly higher than both other subjects, and preference for Accounting significantly lower than both other subjects. See Table 2.
5 <i>There will be no difference in preference for course format between students who have taken, and those who have not taken, a particular subject.</i>	Mixed: For HRM there was a significant change in preference after students had completed the course; for Marketing, there was a strong trend towards a significant difference, and for Accounting, there was no difference (see Table 3). Rejected. See Table 4 (and also Table 1).
6 <i>There will be no significant association between student experience of, and preference for, a block course.</i>	Rejected: For all three subjects, students who preferred a weekly course were significantly lower in perceived ability (see Table 5).
7 <i>There will be no difference in the mean perceived ability of students nominating different course preferences</i>	Rejected: Taking two subjects per term, a significantly larger percentage chose to do one subject by block (see Table 6).

- Familiarity with the material would lead me to do it in block.
 - Depends on content. Unfamiliar content or difficult (perceived) subjects would be done weekly.
- In contrast, a much smaller number mentioned educational benefits, such as allowing immersion in, or concentration on, the material during a block course (25 responses), or allowing focused effort (8 responses).
- Constant focus for short period. Like concentrated learning.
 - Solid focus on the topic. If you have had a hard day at work it is hard to concentrate on weekly classes.

Reasons for preference for weekly courses

In contrast with block courses, ‘lifestyle’ reasons for preferring weekly courses totalled only 56 responses (14.9%), considerably less than the 170 responses

(or 45.3%) indicating lifestyle reasons for preferring blocks. In contrast, the most commonly reported reasons for preferring weekly classes fell under the ‘content’ theme, in particular when the content was perceived as hard or new to the person (69 responses) or technical/ accounting/mathematical (29 responses). Comments included:

- When there is a lot of information to digest eg stats, formulae.
- Subjects not familiar/knowledgeable about – good to break down.

The second group of reasons for preference for weekly courses related to the ‘educational benefit’ theme. Some respondents reported that they preferred weekly courses in order to absorb and/or understand the material being taught (50 responses) or because it allowed more time for reflection (12 responses) or because they thought that more content could be covered in weekly classes (6

responses). Overall, there were 68 responses (18.1%) revealing a preference for weekly classes relating to perceived educational benefit, substantially more than the 25 (6.7%) indicating preference for block classes based on educational benefits.

- Allows more time to practise lessons taught... allows time to digest info covered and prepare.
- For harder subjects – like accounting – need more time to absorb the content.
- Gives you time to do reading and reflect on material being taught. I seem to be able to digest the material easier.

Across all three qualitative questions, a fourth theme, 'balance/choice' emerged, with students indicating that a choice of weekly and block classes was good to balance one subject in one format with another in the contrasting format (32 responses) or commenting that the ability to choose is good (44 responses) for a total of 20.3% of responses reflecting the 'balance/choice' theme.

- Both are good, it's great to have the choice – depends on individual's strengths in certain areas and what suits lifestyle better.
- Good to have a choice as personal circumstances will change.

Qualitative responses also revealed student reservations concerning block courses, particularly by students who had not taken one. Students who had not attended blocks recognised the advantages of completing classes in a shorter duration but were worried about whether blocks provided enough time to reflect on material, with comments such as 'I do not feel I would learn as effectively in a block'. Some students expressed strong views that a block course was inferior, such as the following comment (from a student who had not done any block courses):

'I strongly disagree with the block format as I am sure it is a very poor learning environment.'

Another student, who had completed one block course wrote:

'Blocks are only marginally better than distance learning. I do them only when I have to. As a

foreign student it is a severe criticism of the course which I will pass on to friends/colleagues.'

DISCUSSION OF FINDINGS

Both the quantitative and qualitative data suggest some important, and previously unidentified, barriers to student acceptance of block teaching. Perhaps the most important extension to previous studies is that student preference for a block format appears to be highly contingent on several criteria; the subject, their experience, subject load and their perceived ability in the subject. If students are studying only one subject in a term, most express a preference for a less intensive format, especially if the subject is one in which they are less confident. A simplistic analysis might thus suggest that less intensive formats are more popular with the majority of students. However in practice, students appear to take a number of issues into consideration when they make format choices. In particular, if students are studying two subjects per term (a full load for a part-time student) preference for a block course increases significantly, but only for some subjects. In our study, when students were asked their preferences if studying Accounting and Marketing at the same time, preference for block study of Marketing increased significantly. In contrast, format preference for a heavily quantitative subject like Accounting, in which many students feel less confident in their ability, did not change. Any future research about choice of block courses should therefore be careful to specify the choice conditions, in order to avoid making conclusions which cannot be extrapolated to other choice situations.

The second important finding of the study is that preference for a block course appears to increase as students become more experienced with the format and also as they take more subjects. Preference for a block course was strongly associated with the number of courses taken in any format (from Table 1) and also with the number of block courses taken. After taking just one block course, students were significantly more likely to choose a block course than those who had not taken a block course ($P < 0.001$), suggesting that initial reserva-

tions about the format decrease with experience. However experience with a block did not increase the very low rate of preference for Accounting by block. The qualitative analysis was consistent with this finding, revealing frequent student concerns about taking quantitative subjects (like Accounting) by block format.

The fact that less experienced students have a strong preference for weekly courses does suggest that students may initially be nervous about and reluctant to study in a block format, especially for quantitative subjects. Offering early subjects by block format, especially if these subjects are quantitative, is therefore likely to lead to some student resistance, which may need to be overcome by providing more information to students about the block format before they take one. In this way, universities and management faculties could potentially decrease student concerns about the format, and thus encourage enrolments by students who might otherwise be put off by what many initially see as an unattractive format.

The identification of student concerns with the quality of learning in block courses is not surprising, reflecting student and faculty concerns about the educational equivalence of block teaching reported in other studies (eg Davies 2006; Finger & Penney 2001; Wayland, Chandler & Wayland 2000). Concerns about the educational value of a block course are not supported by most research into student performance in blocks, which despite some mixed evidence, has generally reported that students in block courses perform as well as, or better than, students on traditional courses. However our finding that students who are more confident in a subject are more likely to select a block format suggests that it is possible that any educational advantage of a block course observed in previous research may be due to self-selection by students who are more confident (and thus presumably on average more competent) in the subject area. Though continued research in this area (as discussed below) would be valuable, it will probably never be possible to establish whether blocks provide an equal learning environment,

because students self-select block or traditional courses in almost all cases, and our results suggest that students will be more likely to choose blocks if they are more confident in the subject area.

Despite the concerns of some students and faculty about the format, blocks will undoubtedly continue because of their advantages for universities, faculty, and students. However the persistent use of block format, which is not the preferred mode of single subject study for students and which some believe is educationally inferior, is likely to limit the uptake of block courses. In particular, overseas students who have only experience with traditional teaching formats, may be less inclined to select Australian off-shore programs which only offer block formats. Identifying and addressing student concerns about block teaching could therefore be an important strategy for making the format more attractive to potential students, particularly in the off-shore campuses of many universities, where study with an off-shore university may only be possible by block teaching.

As Davies (2006) notes, the increased use of intensive teaching appears to have nothing to do with good pedagogy, being driven instead by institutions becoming more responsive to student demands for the format. This suggests a need for academic institutions to engage in a serious effort to evaluate whether blocks are equal to traditional formats in educational outcomes. Such an assessment could be partly achieved by systematic comparison of students' grades across traditional and block formats. Our results suggest that students are significantly more likely to choose a block format if they feel more confident in the area, so if students can choose their study format, such a study will never be definitive, but if the results support prior research which has usually reported equivalent or better outcomes from blocks, then students can be confidently told that block teaching is consistent with equivalent performance on assessment criteria. Such an assurance is likely to contribute to decreasing the anxiety and concerns of inexperienced students about block courses. Thus further evaluation of the learning outcomes

between block and traditional teaching formats seems an important area for future research.

It may also be possible to decrease student reservations about the block format by specific strategies to build student confidence in the format. Research on self-efficacy shows that self-efficacy can be enhanced by modelling and by psychological encouragement. Thus students' concerns about block courses could be addressed through mentoring by more experienced students, to reduce the anxiety or concern of students confronting their first block. Experienced students could thus provide a model of successfully dealing with the issues associated with block learning, and lecturers could possibly also play a more significant role in providing guidance and support. Addressing student concerns at pre-enrolment student information sessions, for example by using testimonials about success in dealing with blocks, may also be worthwhile in marketing courses where block work constitutes a significant portion of the subject load.

Our results also suggest that as students become more experienced with the block format, results from earlier research may no longer be valid. For example these results do not support research findings from early studies that block teaching is more attractive to older students. In this study older students were not significantly more likely to prefer a block course ($P = 0.92$), though there was weak evidence suggesting that students who are working full-time prefer blocks ($P = 0.09$). Caskey's study did not report whether the older students who preferred intensive courses in her study were more likely to be working, but based on the results of our study, it appears to be work situation, rather than age, which is associated with increased demand for blocks. In an educational environment where more students are working, with many working longer hours, this suggests that student demand for block courses is unlikely to decrease.

A final benefit of our study is to show the advantages of combined quantitative and qualitative methodology, in testing for significant differences, and in probing the reasons underlying those differences. Open-ended questions are often used in sur-

veys however qualitative results are rarely reported: information provided in the answers to these types of questions can often provide a fuller understanding of respondent motivations and beliefs underpinning answers to the quantitative survey questions. In this study we analysed the open-ended responses using content analysis methodology. This allowed us to identify thematic issues identified from comments and to carry out a more systematic analysis of respondents' views about block and weekly teaching. The qualitative analysis supported findings from the quantitative results: for example, it identified that a combination of block and weekly classes within the one term is attractive to many students, and reinforced that students are more likely to choose a block course if they are experienced in, and/or confident with, the content. The qualitative analysis also extended the quantitative results, giving some insight into the perceived advantages of both formats. Perceived advantages of the block format appear to be associated with perceptions that it is more compatible with other time demands on students. In contrast, the weekly format is more clearly associated with student perceptions of better learning outcomes, especially if the course content is perceived to be novel or challenging to the student.

CONCLUSION

Block teaching is likely to remain a substantial part of the offering of universities, due to its attractions for students, faculty and universities. This study finds, consistent with previous research, that students see clear advantages in a time compressed format, but also have reservations about whether they will learn as much in a block format. By examining students with different experience of block formats, however, this study extends previous research in two key ways. Firstly, it shows clear differences in student preferences for block format, depending on the subject being studied, on the presence or absence of concurrent study of other subjects and on the student's perception of their ability in the subject. Secondly, the study shows that students' reservations about the block format tend to decrease as their experience with the for-

mat increases. The fact that students' willingness to choose a block format was positively associated with their experience of the format suggests that students' stated concerns about block teaching often reflect anticipated, rather than actual, disadvantages of the block format. Nevertheless, it is possible that these perceptions may still be limiting acceptance of the format by many students. Identifying and addressing these concerns may help to allay student concerns about block teaching, and should increase student acceptance of the format.

The study suggests that universities teaching with a block format (especially in off-shore courses, where students typically can *only* study by block) may benefit from specifically addressing and attempting to counter, student reservations about block teaching in information sessions for prospective students and/or in pre-study instructions. Our results also suggest some particular challenges for block teaching for one subject, Accounting (and perhaps for other quantitative subjects where students are often similarly nervous about their ability to cope with the material in a block format). Where students have a choice, it appears that a large majority will prefer to avoid Accounting in a block format. For off-shore programs, where the block study pattern is standard, concerns about compulsory block teaching for such subjects may be sufficient to discourage students from enrolling in a block only programme. Offshore students in subjects like Accounting may prefer the option of studying online, where they can stage their own learning, thus mimicking the flexibility of block scheduling while allowing the slow sequential build-up of learning offered in traditional courses.

In conclusion, the study reinforces that block teaching may be, as Davies (2006) suggested, 'an idea whose time has come'. For busy students, especially those studying two subjects per term, the option of intensive study appears to be attractive. However our study also shows strong student reservations about the format. The challenge for universities and for faculty is to identify and address student concerns, so that students' beliefs about the convenience of the format can

be backed up by confidence in their ability to learn as much in an intensive format.

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APPENDIX 1: EMPLOYMENT

Student preference for the subject class in which the survey was distributed to them was assessed using the question below (with block students asked about preference for a weekly format, and vice versa). Possible responses were 'yes', 'no', or 'don't know'.

If this course, with this lecturer, had been offered this term by weekly/block format, on days that you did not have classes, would you have chosen to take it weekly, instead of in a block?

Differences in format preferences between formats were assessed by asking about preferences for the Accounting, HRM and Marketing subjects.

Assume you haven't completed the three courses below, and that you intend to do each subject at the rate of *one subject per term*. If you could choose to do each by either block or weekly method, which method would you choose for each subject (assuming the same lecturer would take both block and weekly classes)?

- | | | | |
|----------------------------|-----------------------------------|---------------------------------|---|
| Accounting for Management | <input type="checkbox"/> By block | <input type="checkbox"/> Weekly | <input type="checkbox"/> No preference/can't tell |
| Human Resources Management | <input type="checkbox"/> By block | <input type="checkbox"/> Weekly | <input type="checkbox"/> No preference/can't tell |
| Marketing Management | <input type="checkbox"/> By block | <input type="checkbox"/> Weekly | <input type="checkbox"/> No preference/can't tell |

Differences in format preferences under different study loads were assessed by asking about preferences for Accounting and Marketing subjects if they were studying both subjects per term:

Assume that you haven't done Accounting or Marketing, and that you are planning to take *both courses next term*. Which method would you choose for each subject (assuming the same lecturer would take both block and weekly classes)?

If I took Accounting and Marketing *in the same term*, I would choose to do:

- | | | | |
|----------------------------|-----------------------------------|---------------------------------|---|
| Accounting for Management | <input type="checkbox"/> By block | <input type="checkbox"/> Weekly | <input type="checkbox"/> No preference/can't tell |
| Human Resources Management | <input type="checkbox"/> By block | <input type="checkbox"/> Weekly | <input type="checkbox"/> No preference/can't tell |
| Marketing Management | <input type="checkbox"/> By block | <input type="checkbox"/> Weekly | <input type="checkbox"/> No preference/can't tell |

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