

Balancing Work With Study: Impact on Marketing Students' Experience of Group Work

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Steven D'Alessandro¹ and Simone Volet²

Abstract

Approximately 57% of students in the United States work while attending college. For most of these students (81%), this is more than 20 hours a week. There has been shown to be a negative relationship between hours worked and academic achievement in studies in the United States as well as the United Kingdom and Australia. There is, however, no research to the authors' knowledge as to how the number of working hours affects student learning in groups, and whether students in groups with varying work patterns report better learning outcomes in groups where student working hours are similar. This study reports that overall, greater working hours decrease students' perceptions of the value and their experience of group work, and this occurs more with second- and third-year students. It also reveals that students studying in groups where there is a large proportion of students working more than 2 days a week displayed significantly more negative appraisals of their experience at the end of a project than their peers in groups where few students were working.

Keywords

group learning, group projects, work–study balance

Introduction and Context

Students face an increasing number of financial pressures that are met by working while completing their studies (Baty, 2005; Burd, 2006; Callender, 2008; Peng & Ling, 2010; Robbins, 2010; Vasti, Jacob, & Afet, 2010). The proportion of college students working part time and full time has been estimated at around 57% in the United States (Miller, Danner, & Staten, 2008) and up to 70% in Australia (Robbins, 2010). In terms of hours worked per week for those students working in the United States, this was an average of 20 hours a week (Miller et al., 2008) whereas in Australia, this is lower at around 15 hours a week (Robbins, 2010). Research suggests that the longer students work outside of their studies, the lower their academic performance (Callender, 2008; Carney, McNeish, & McColl, 2005; Furr & Elling, 2000; Miller et al., 2008). Health problems such as insomnia, and risky behavior, such as binge drinking and the use of illegal drugs, have also been shown to be more likely affecting students who work more than 20 hours a week (Miller et al., 2008). Serious academic performance issues have also been associated with students who work more than 30 hours per week (Miller et al., 2008), even when that employment is directly related to what they study (Salamonson & Andrew, 2006). Students who work longer are less involved in campus activities (Furr & Elling, 2000). The working week for these students

involving study, work, and family extends, is estimated to be 59 to 71 hours per week (Lowe & Gayle, 2007). Students working long hours see the provision of online facilities for communication, assignment submission, and more flexible timetables as well as changes in submission requirements as crucial to their access of education (Hall, 2010). One of the demanding tasks for these students along with colleagues with differing work patterns is working on group projects. The study focuses on students' general attitude toward group work as well as on students' multidimensional appraisals of a specific group project as it evolves over a semester. Students' retrospective reflections of their group processes are also examined. Data analysis is carried out at the individual level and small group level.

Literature Review

Undergraduate students majoring in marketing are required to engage in multiple group projects throughout their

¹Macquarie University, Sydney, New South Wales, Australia

²Murdoch University, Murdoch, Perth, Western Australia, Australia

Corresponding Author:

Steven D'Alessandro, Department of Marketing and Management,
Macquarie University, Sydney, New South Wales 2109, Australia
Email: steven.dalessandro@mq.edu.au

undergraduate study. The educational value of group-learning activities in professional programs is well established (Bacon, 2005; Davis & Miller, 1996; Humphreys, Greenan, & McIlveen, 1997; Razzouk, Seitz, & Rizkallah, 2003), and group projects have become an integral part of university marketing education. Skills learnt from group learning prepare students to work in cross-functional teams in the workforce (Huff, Cooper, & Jones, 2002), develop technical reporting skills, encourage the management of group dynamics (Scott, 1988), and help foster community engagement with people of different backgrounds (Anderson et al., 2010).

The benefits of group projects, however, can only be achieved if students fully engage in such activities. It appears that the benefit of working in groups on a "real-life project," such as a marketing research study or a marketing plan, must be carefully balanced with the effort needed to put into working in groups by students (Ryan & Ogilvie, 2005). Students in this study were also reported to prefer to have a choice of whether to work or not in a group.

Research has revealed that many university students report negative experiences of group work (Amato & Amato, 2005; Friedman, Cox, & Maher, 2008; Paswan & Gollakota, 2004), and this has extended to marketing students (Chapman, Meuter, Toy, & Wright, 2010; McCorkle et al., 1999). According to students, the reasons for negative experiences are multiple, but sociodynamic aspects dominate, for example, peers' lack of commitment to contribute to the group effort (Ashraf, 2004; Brooks & Ammons, 2003; Fellenz, 2006; Friedman et al., 2008; Gevers, van Eerde, & Rutte, 2001). Other negative associations of group learning are the degree of organization required by students and the perception of unfair grades (Sweeney, Weaven, & Herington, 2008).

The role of marketing instructors on the outcomes of group learning appears to be problematical, mainly because of time pressures faced by many academic staff (Reisenwitz & Eastman, 2006). Approaches that address free-riding and encourage development of group cohesion have been emphasized in the literature (Amato & Amato, 2005; Brooks & Ammons, 2003; Burdett, 2003; Cook, 1981; Fellenz, 2006; Graeff, 1997; Hansen, 2006; Hernandez, 2002; Leung, 1998; Russell & Goodnight, 2009; Strong & Anderson, 1990).

New approaches to encourage student learning in groups, which include providing student ownership of group projects (Wood, 2003), more realistic and field-based studies (Parsons & Lepkowska-White, 2009; Razzouk et al., 2003), or team-based competitions (Umble, Umble, & Artz, 2008), have also been advocated for effective curriculum design for group learning.

Both positive and negative factors in group learning leading to these outcomes have been the element of group diversity. Some researchers in business education (Amato & Amato, 2005; Hernandez, 2002; Lee & Jiing-Lih, 2004; Sargent & Sue-Chan, 2001) have suggested that more diverse student teams in terms of gender and ethnic makeup will produce more positive outcomes of group learning, even when

different communication styles existed within a group. This relationship, however, appears to be moderated by group cohesion (Deeter-Schmelz, Kennedy, & Ramsey, 2002). Some researchers have also suggested that students need skills to manage personality differences in groups in order to achieve benefits of diversity in skills and backgrounds (Abernethy & Lett III, 2005; Amato & Amato, 2005). Group cohesion may be more difficult to achieve when students have different working patterns. This may create time pressures as a whole for the group, which has been shown to affect group learning (Gevers et al., 2001). A large-scale U.K. study across a number of universities and academic disciplines (Callender, 2008) stressed the detrimental impact of term-time employment on students' academic achievement. Students who work 20 or more hours have reported difficulties, such as lower grades (Furr & Elling, 2000; Miller et al., 2008), less involvement with university life, and greater time pressures (Lowe & Gayle, 2007). In terms of group dynamics, these students are *not* expected to see much benefit in future commitments required for collaborative learning. Therefore, the first hypothesis of the study was as follows:

Hypothesis 1: Students' general attitude toward group work and appraisals of a specific group project will be related to the level of their paid work commitment.

There is mixed support that as students get more experienced with the demands of work and study they are better able to cope with conflicting demands. Research with nursing students suggested that older, more experienced students were able to cope with the demands of part-time work, providing it did not exceed 16 hours a week (Salamonson & Andrew, 2006). Other research in the discipline of engineering has found a positive relationship between working hours and perception of course difficulty with undergraduate students but not with postgraduate students, where students who worked longer hours actually found the course easier to complete (Jonkman, De Boer, & Jagielski, 2006). Therefore, the next hypothesis of the study was the following:

Hypothesis 2: Prior experience of group work at university will moderate the impact of work commitment on attitude and appraisals toward such activities. That is, there will be a significant interaction between experience at university and work commitment for the dependent variables of the study.

It is also important to consider the effect on other students trying to learn collaboratively with students with large work commitments. It has been suggested that these groups may face time pressures and may lack "group potency," in other words, planning and organization necessary for them to achieve satisfactory learning outcomes (Gevers et al., 2001). Thus, the last hypothesis of the study was

Hypothesis 3: Students who undertake a group project in a small group where at least half of the group members have substantial work commitments will display more negative attitudes and appraisals of that project than those who carry out the project in a group where at least half of the group members are not engaged in paid work outside study.

Method

Participants were 222 marketing students ($n = 81$ enrolled in a first-year unit and $n = 141$ enrolled in a second- or third-year unit). Each unit required students to complete a group assignment in a small self-selected group of 3 to 4 students over a period of 8 weeks. In each unit, students received a group mark for the group work, which formed 20% to 25% of their individual marks for the whole marketing unit.

The first two hypotheses dealt with individual differences in group learning because of work commitments and so are evaluated with all data at the individual level.

For the third hypothesis, only data from intact groups were retained for the group analyses. This involved comparing the attitudes and appraisals over the duration of the group assignment of 17 students (from 4 groups where at least half of their members worked more than 2 days a week or 16 hours or more) with those of 21 students (from 5 groups where at least half of their members did not have paid employment). The reason for this being that it allowed a matched comparison of the effect of other peers' work patterns on individual members of the group.

Procedure and Research Instruments

Participants completed a matched questionnaire in class, at the beginning and end of the group project. The beginning questionnaire elicited information on their weekly paid work commitments (5 categories, ranging from 0 to less than 5 hours, between 5 and 15 hours, between 15 and 30 hours, and more than 30 hours). On both occasions, students rated their multi-dimensional appraisals of their current specific group assignment (Students' Appraisals of a Group Assignment [SAGA] instrument), their general views about mixing international and local students for group assignments, as well as their general attitude toward group work.

The contextualized version of the SAGA instrument (Volet, 2001), containing six subscales (five items each), is designed for repeated administration. It is used to measure students' appraisals of learning outcomes of Cognitive Benefits, Motivating Influences, Affect, Management, Group Assessment, and Interpersonal Aspects of their current group project. Sample items are as follows: "Interacting with peers for this group assignment will enrich my knowledge and understanding" (Group Knowledge) and "Group assessment is unacceptable for this assignment" (Group Assessment). Items

Table 1. Group Means and Standard Deviations of the Six SAGA-Contextualized Subscales: An Overall Attitude to Group Work and Working in Culturally Diverse Teams

Measure	Pretask		Posttask		Change
	Mean	SD	Mean	SD	p
SAGA measures					
Cognitive benefits	2.21	1.74	1.61	2.09	**↓
Motivating influence	0.93	1.46	0.43	1.78	**↓
Affect	1.72	2.03	1.17	2.38	**↓
Interpersonal	0.74	1.19	1.30	1.74	**↑
Management	0.16	0.99	0.18	1.42	ns
Group assessment	1.34	1.65	1.14	2.03	**↓
General attitude to:					
Group work	2.88	0.76	2.76	0.83	**↓
Cultural mix	0.98	1.93	0.59	2.22	**↓

Note. SAGA = Students' Appraisals of a Group Assignment. $N = 222$.
* $p < .05$. ** $p < .01$.

are rated on a 4-point Likert-type scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*. The psychometric properties of the six subscales were established using Rasch analysis and a software program called RUMM 2020 (Andrich, Sheridan, & Luo, 2005). The tests of fit of the model showed satisfactory targeting of the responding population and separation indexes (similar to Cronbach's alpha), ranging from .65 to .76. The summated scores were then standardized for the purposes of the analysis.

The five-item Cultural Mix Scale, also developed and analyzed according to principles of Rasch measurement, is used to assess students' general view about completing assignments in groups comprising both international and local students. Its psychometric properties were good with a separation index of .85.

Note that for reasons of privacy, student group project grades could not be obtained. However, the adult learning literature indicates that self-reports of learning among adult students tend to be strongly correlated with academic performance (Keys, 2003), suggesting that self-reports may provide a valid, though subjective measure of learning outcomes.

Finally, the measure of general attitude toward group work was a single-item scale (1 = *not positive* to 4 = *very positive*).

Results

Work patterns were collapsed into three categories, with 74 students (33%) working 16 hours a week, 80 (35.5%) working between 1 and 15 hours, and 71 (31.5%) who did not have any paid work commitments. The distribution was relatively even across year levels. Table 1 shows the means and standard deviations for SAGAs at the beginning and

Table 2. Repeated-Measures Multivariate Analysis of Variance Results for Hours and Work and Year of Study: All Students

Effect			Value	Hypothesis <i>df</i>	Error <i>df</i>
Between subjects	Hours of work	Pillai's trace	0.18**	16	404
		Wilks's Lambda	0.82**	16	402
		Hotelling's trace	0.21**	16	400
		Roy's largest root	0.19**	8	202
	Year of study	Pillai's trace	0.17**	16	404
		Wilks's Lambda	0.83**	16	402
		Hotelling's trace	0.19**	16	400
		Roy's largest root	0.15**	8	202
	Hours of work × Year of study	Pillai's trace	0.10	32	816
		Wilks's Lambda	0.90	32	743
		Hotelling's trace	0.10	32	798
		Roy's largest root	0.07	8	204
Within subjects	Time	Pillai's trace	0.38**	8	201
		Wilks's Lambda	0.62**	8	201
		Hotelling's trace	0.61**	8	201
		Roy's largest root	0.61**	8	201
	Time × Hours of work	Pillai's trace	0.08	16	404
		Wilks's Lambda	0.92	16	402
		Hotelling's trace	0.08	16	400
		Roy's largest root	0.07	8	202
	Time × Year of study	Pillai's trace	0.07	16	404
		Wilks's Lambda	0.93	16	402
		Hotelling's trace	0.07	16	400
		Roy's largest root	0.04	8	202
	Time × Hours of work × Year of study	Pillai's trace	0.15	32	816
		Wilks's Lambda	0.85	32	743
		Hotelling's trace	0.16	32	798
		Roy's largest root	0.08	8	204

* $p < .05$. ** $p < .01$.

near the end of semester. The results across all classes and working patterns show that generally the trend for students as the result of their experiences is to have a more negative appraisal of group assignments. This is true in terms of Cognitive Benefits, Motivation, and Affect (how they felt about working in groups). Students' General Attitude to Group Work declined over the semester as their willingness to work in culturally diverse groups. The task of management of group work was considered bothersome by students, as shown by the low mean scores but remained unchanged in attitude over the course of the semester.

Students did report that they benefited, however, from interpersonal interaction involved with group work during the semester. These findings, however, do not explain, what in particular may have caused a change in student perceptions or that if students with different working patterns or those studying in groups where more than half worked a great deal or little at all, had the same experiences on average as the wider student cohort.

To examine Hypotheses 1 and 2, a multiple repeated-measures analysis was conducted with a *within-subject factor*

of *Time*, representing the pre- and postmeasurements of group appraisal and learning and two *subject factors*, *Hours of Work*, as described previously, and *Year of Study*, first, second, and third year. Measures included appraisals of group assignment at the beginning and near the end of semester, along with current views of group work and attitudes toward working in culturally diverse teams. This analysis included all students of the study in both intact and nonintact groups. Note that some students do change groups throughout the semester, and this is the reason that only an intact group analysis was conducted for Hypothesis 3. The use of a repeated-measures analysis allowed the examination of hypotheses of the study along with any maturation effects than can occur throughout the group-learning process.

Tables 2 and 3 show the repeated MANOVA (multivariate analysis of variance) and ANOVA (analysis of variance) results. There was substantial support for Hypothesis 1 (students' general attitude toward group work as well as appraisals of a specific group project will be related to their paid work commitment). Students general attitude toward group work was related to their work patterns ($F = 3.39, p < .05$),

Table 3. Analysis of Variance Results for Hours and Work and Year of Study: All Students

Source	Measure	df	F
Time	Cognitive benefit	1	53.02**
	Motivating influence	1	9.78**
	Affect	1	10.88**
	Interpersonal	1	14.85**
	Management	1	0.00
	Group assessment	1	1.44
	General attitude to group work	1	1.90
	Cultural mix	1	14.72**
Hours of work	Cognitive benefit	1	7.21**
	Motivating influence	1	6.74**
	Affect	1	7.99**
	Interpersonal	1	0.96
	Management	1	1.24
	Group assessment	1	3.39*
	General attitude to group work	1	3.69*
	Cultural mix	1	15.99**
Year of study	Cognitive benefit	1	3.24*
	Motivating influence	1	2.45
	Affect	1	0.37
	Interpersonal	1	3.37*
	Management	1	3.08*
	Group assessment	1	0.06
	General attitude to group work	1	1.10
	Cultural mix	1	0.62
Hours of work × Years of study	Cognitive benefit	1	0.85
	Motivating influence	1	1.17
	Affect	1	2.60*
	Interpersonal	1	0.23
	Management	1	0.37
	Group assessment	1	1.61
	General attitude to group work	1	0.71
	Cultural mix	1	0.51
Time × Hours of work	Cognitive benefit	2	0.92
	Motivating influence	2	0.24
	Affect	2	0.04
	Interpersonal	2	0.36
	Management	2	0.10
	Group assessment	2	0.62
	General attitude to group work	2	0.48
	Cultural mix	2	3.35*
Time × Year of study	Cognitive benefit	2	1.58
	Motivating influence	2	0.42
	Affect	2	0.65
	Interpersonal	2	0.16
	Management	2	0.57
	Assessment	2	0.76
	General attitude to group work	2	0.64
	Cultural mix	2	0.61
Time × Year of study × Hours of work	Cognitive benefit	4	0.50
	Motivating influence	4	0.87
	Affect	4	0.51
	Interpersonal	4	0.79
	Management	4	0.55
	Assessment	4	1.02
	General attitude to group work	4	0.53
	Cultural mix	4	2.47*

* $p < .05$. ** $p < .01$.

with all results in the expected direction. Furthermore, four of the six appraisals of the specific group assignment were significantly related to students' work commitments on both occasions: Cognitive Benefits ($F = 7.21, p < .01$), Motivating Influence ($F = 6.74, p < .01$), Affect ($F = 7.99, p < .01$), and Group Assessment ($F = 3.39, p < .05$). Students' general attitude toward mixing local and international students for group assignments was also highly significantly related to students' work patterns on both occasions ($F = 15.99, p < .01$), suggesting that students expected to experience increased challenges if they undertook group assignments in diverse groups. Students' concerns in that regard appear inconsistent with recent research evidence that students who completed their assignment in culturally diverse groups report greater satisfaction with the role of their group and greater social cohesion than their counterparts who stayed in homogenous groups (Kimmel & Volet, 2010).

Using the effect size guideline, percentages of variance explained by experimental treatments (eta squared [η^2] usually expressed as a proportion) as suggested by Chen and Lou (2004) were more than .15, indicating a large effect size; more than .06, indicating medium; and more than .01, indicating a moderate effect size, the level of explained variance due to working hours was generally medium. In terms of effect size, apart from Cognitive Benefits ($\eta^2 = .20$), the largest changes were due to Time, the greatest degree of difference was generally due to the hours that students worked. This was the case for Cultural Mix ($\eta^2 = .13$), Affect ($\eta^2 = .07$), Motivating Influence ($\eta^2 = .06$), Management ($\eta^2 = .05$), Assessment ($\eta^2 = .04$), and General Attitude to Group Work ($\eta^2 = .03$).

As shown by the repeated-measures MANOVA results, there was virtually no support for Hypothesis 2 (prior experience of group work at university—second/third-year vs. first-year students—will moderate the impact of work commitment on attitude and appraisals toward such activities, with first-year students expected to be more affected on the ground that they are still adjusting to university study at the same time as coping with paid employment). An interaction was found, however, for Affect ($F = 2.60, p < .05$).

An examination of the mean scores in Table 4 suggested that the major differences in students appraisal of group work occurs when they work more than 16 hours a week, and the pattern for most pre- and postmeasures of group learning suggests that these students are more likely to have a negative perception of group work, a view consistent with research that these students find study challenging and greater involvement with university life, which group learning demands, quite challenging (Furr & Elling, 2000; Lowe & Gayle, 2007; Salamonson & Andrew, 2006).

Bonferroni post hoc tests showed that students who worked more than 16 hours a week (mean = 1.51) had significantly lower beliefs of the cognitive benefits of group work at the start of semester than those who worked little or not at all (means = 2.64, 2.36, and 2.64, respectively). At the end of

Table 4. Means and Standard Deviations for Hours of Work and Student Appraisals of Group Work: All Students

	Hours of work per week	Mean	SD
Cognitive benefit pretask	None	2.64	1.71
	1-15	2.36	1.55
	>16	1.51	1.73
Cognitive benefit posttask	None	1.57	2.10
	1-15	1.13	1.86
	>16	0.68	2.04
Motivating influence pretask	None	1.10	1.33
	1-15	1.10	1.32
	>16	0.54	1.65
Motivating influence posttask	None	0.74	1.70
	1-15	0.53	1.63
	>16	-0.09	1.96
Affect pretask	None	2.07	1.89
	1-15	2.04	1.87
	>16	0.96	2.25
Affect posttask	None	1.55	2.10
	1-15	1.35	2.21
	>16	0.44	2.67
Management pretask	None	0.27	0.91
	1-15	0.32	0.97
	>16	-0.14	1.08
Management posttask	None	0.35	1.41
	1-15	0.24	1.32
	>16	-0.13	1.49
Assessment pretask	None	1.54	1.62
	1-15	1.51	1.55
	>16	1.01	1.82
Assessment posttask	None	1.34	1.89
	1-15	1.31	1.93
	>16	0.71	2.25
Interpersonal pretask	None	0.73	1.16
	1-15	0.84	1.20
	>16	0.55	1.28
Interpersonal posttask	None	1.46	1.59
	1-15	1.21	1.68
	>16	1.12	1.92
General attitude to group work pretask	None	2.77	0.74
	1-15	2.68	0.77
	>16	2.57	0.81
General attitude to group work posttask	None	2.93	0.82
	1-15	2.76	0.71
	>16	2.53	0.91
General attitude to cultural mix pretask	None	1.66	1.98
	1-15	1.25	1.71
	>16	0.03	1.79
General attitude to cultural mix posttask	None	1.42	2.06
	1-15	0.88	1.87
	>16	-0.61	2.20

semester, though, even students who worked 1 to 15 hours were also lower in their view of the cognitive benefits of group work (mean = 1.13, $p < .01$) compared with students who did not work (mean = 1.57) and were just as negative as students who worked more than 16 hours a week (mean = 0.68). In terms of motivation to do group work, those students who worked more than 16 hours a week were the least motivated at the start of semester (mean = 0.54) compared with those students who worked somewhat or not at all (means = 1.10 for both, $p < .05$ for all). This changed at the end of the semester, with students who worked (1-15 hours and >16 hours) being similar in their motivation of group projects (mean of 1-15 hours = 0.53 and mean of greater than 16 hours = -0.99, $p > .10$), but lower than those students who did not work at all (mean of no working hours = 0.74, $p < .05$).

Students who worked more than 16 hours a week, both before and after the completion of group projects, were also the most negative in terms of affect ($p < .01$ for all pre- and postmeasures of affect). They had the greatest problems in the management of groups at the start and end of the semester ($p < .01$ for premeasures of management and $p < .05$ for postmeasures, compared with other groups). Students who worked more than 16 hours, unlike students with other working patterns, were not tolerant of working in culturally diverse groups ($p < .01$ for all pre- and postmeasures of Cultural Mix).

There were no significant differences in the attitudes to group assessment and the management of interpersonal relationships within groups because of work patterns, before or after group projects were completed. The overall General Attitude to Group Work was similar across all types of working patterns at the beginning of semester, the only difference occurring with students working more than 16 hours having a more negative attitude to group work (mean = -0.66), compared with students who did not work at all (mean = 1.42, $p < .01$).

Although these results show the effect of working on group learning and appraisal for individual students, they do not show the effect of students working long hours on other members of the group. The final analysis of intact groups split by those who worked more than 16 hours a week and those other groups who had at least half of their members not in paid employment provided an insight into how work patterns of some may affect the group learning and appraisals of others.

Results showed that strong support for Hypothesis 3 (students who undertake a group project in a small group where at least half of the group members have substantial work commitments will display more negative attitudes and appraisals of that project than those who carry out the project in a group where at least half of the group members are not engaged in paid work outside study). A repeated-measures MANOVA was carried out for peers' working pattern (McInerney, McInerney, & Roche, 1994) by Time for General Attitude

Table 5. Repeated-Measures Multivariate Analysis of Variance: Intact Groups by High–Low Work Patterns

Effect			Value	Hypothesis <i>df</i>	Error <i>df</i>	
Between subjects	High working–	Roy's largest root	38.05**	8	28	
		Pillai's trace	0.55**	8	28	
	Low working	Wilks's Lambda	0.45**	8	28	
		Hotelling's trace	1.23**	8	28	
		Roy's largest root	1.23**	8	28	
Within subjects	Time	Pillai's trace	0.53**	8	28	
		Wilks's Lambda	0.47**	8	28	
		Hotelling's trace	1.14**	8	28	
		Roy's largest root	1.14**	8	28	
	Time × High–low working	Pillai's trace	Pillai's trace	0.22	8	28
			Wilks's Lambda	0.78	8	28
		Hotelling's trace	Hotelling's trace	0.28	8	28
			Roy's largest root	0.28	8	28

* $p < .05$. ** $p < .01$.

Table 6. Analysis of Variance Results: Intact Groups by High–Low Work Patterns

Source	Measure	<i>df</i>	<i>F</i>
Time	Cognitive benefit	1	7.50**
	Motivating influence	1	9.67**
	Affect	1	8.23**
	Interpersonal	1	2.47
	Management	1	1.75
	Group assessment	1	8.11**
	General attitude to group work	1	1.06
	Cultural mix	1	0.94
	High–low working	Cognitive benefit	1
Motivating influence		1	10.04**
Affect		1	18.10**
Interpersonal		1	8.97**
Management		1	7.20**
Group assessment		1	14.66**
General attitude to group work		1	15.83**
Cultural mix		1	25.63**
Time × High–low working		Cognitive benefit	1
	Motivating influence	1	3.84
	Affect	1	6.19**
	Interpersonal	1	0.79
	Management	1	3.19
	Assessment	1	4.29*
	General attitude to group work	1	2.98
	Cultural mix	1	0.08

* $p < .05$. ** $p < .01$.

Toward Group Work and the six appraisals of the group assignment (Table 5). As shown in Table 6, all measures of group appraisal, attitudes toward Cultural Mix and General Attitude Toward Group Work, were significantly affected by

peer working patterns. In terms of effect size, the composition of the group in terms of the working patterns of others had a much greater effect on student appraisals of group learning, Attitudes to Group Work, and Cultural Mix than did individual differences due to working hours outside of university ($\eta^2 = .20$ for Cognitive Benefits, $\eta^2 = .22$ for Motivating Influence, $\eta^2 = .34$ for Affect, $\eta^2 = .20$ for Interpersonal, $\eta^2 = .17$ for Management, $\eta^2 = .30$ for Group Assessment, $\eta^2 = .31$ for Attitude to Group Work, and $\eta^2 = .42$ for Attitude to Cultural Mix).

There was no interaction effect overall, but main effects for peers' working pattern ($p < .01$) and for time ($p < .01$) overall. Univariate tests revealed two interaction effects, one for Affect ($F = 6.19$, $p < .01$) and one for Group Assessment ($F = 4.29$, $p < .05$) with—on both occasions—students in low-working groups not changing their attitudes or appraisals over time, and those in the high-working groups displaying significantly more negative appraisals at the end. Table 7 shows all the group differences within occasions and the significant patterns of change over time for each group; statistical differences were calculated with Bonferroni post hoc tests. As can be seen in Table 7, students in groups where there was a majority of peers working more than 16 hours a week displayed lower measures of group appraisal and attitudes toward group projects and Cultural Mix than students who worked in groups where there was less than 15 hours of outside work done by the majority of group members. This was true at both the beginning and end of semester. Importantly, students working in groups where a majority of students worked less than 15 hours showed no significant change in the appraisal of group learning and attitudes toward groups and cultural mix. This result occurs despite their being an overall effect due to Time for the measures of Cognitive Benefit, Motivating Influence, and Group Assessment.

Table 7. Appraisals of a Specific Group Assignment, General Attitude Toward Group Work, and General Attitude Toward Cultural Mix Peers' Working Pattern and Over Time

Measure	Pretask		Posttask		Change <i>p</i>
	Mean	<i>SD</i>	Mean	<i>SD</i>	
Peers' working pattern					
SAGA measures					
Cognitive benefits					
High working	1.23	1.92	0.38	2.24	*↓
Low working	2.85	1.80*	2.05	1.89*	<i>ns</i>
Motivating influence					
High working	0.39	1.37	-0.66	1.71	**↓
Low working	1.22	1.31 ^a	0.94	1.45**	<i>ns</i>
Affect					
High working	0.61	1.98	-0.60	2.42	**↓
Low working	2.32	1.34**	2.22	2.89***	<i>ns</i>
Interpersonal					
High working	0.07	0.61	0.19	1.65	<i>ns</i>
Low working	0.83	1.38*	1.46	1.38*	<i>ns</i>
Management					
High working	0.06	1.16	-0.63	1.00	**↓
Low working	0.34	0.81	0.44	1.41**	<i>ns</i>
Group assessment					
High working	0.63	1.06	-0.47	1.74	**↓
Low working	1.87	1.38**	1.70	1.60***	<i>ns</i>
General attitude to group work					
High working	2.24	0.90	1.88	0.80	*↓
Low working	2.86	0.57	2.95	0.74***	<i>ns</i>
Cultural mix					
High working	0.36	1.42	-0.63	2.39	<i>ns</i>
Low working	2.56	1.79**	2.17	1.95***	<i>ns</i>

Note. SAGA = Students' Appraisals of a Group Assignment. Working $N = 17$; low working $N = 21$.

a. marginal, $p < .10$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Conclusion

The results suggest that the use for group learning as a pedagogy needs to be carefully considered by marketing educators because it appears that students' learning in groups is adversely affected by substantial hours of part-time employment. It appears that this becomes more of a problem in second and third year as the demands for student projects, for example, a market research study by a group of students, become greater. We have also found no evidence that students' ability to organize themselves and balance work and academic commitments gets any better over time, which is a concern, given the conventional wisdom that busy people are usually better organized. Some possible solutions for marketing educators may be to reduce the amount of group work, organize group activities during class time, and to make sure they are aware of the hours worked by students, and explain to them how this may well affect their performance. There

may also be a wider policy for the higher education sector to consider in employing students more on campuses so that the work-academic balance can be greatly facilitated. Student internships may also help build greater involvement with group learning (Karns, 2006) as the project may be related more to the student's job placement. It should be noted that this may not be a panacea, as there is research that shows that a student's academic performance can be adversely influenced even when the work he or she does is directly relevant to the career he or she is studying for (Salamonson & Andrew, 2006).

Importantly, this study shows the commitment that students have to work in culturally mixed groups and the values that they perceive from group learning become more negative as the result of working more in part-time work. Our results in terms of the effect of high and low work patterns with a group are limited in that we collected responses from intact groups. Generally though, most groups remained intact during the period of the study, for example, 38 groups with 4 students each meant that 152 students or 68% of those studied were in intact groups. Although we could have included responses from those whose groups broke up during the study, the problem is that by including incomplete groups, the meaning that can be derived from the responses of those who answered could be biased in terms of representing groups. In other words, we could not use individual responses in this case to represent the dynamics of group learning as to how it was influenced by different work patterns. This does remain a promising area for future research, a difficult one to implement given the uneven numbers of responses per groups that are no longer intact. There may well be an important avenue for qualitative research to follow on how particular students cope in dysfunctional groups, and whether the breakup of the group was in some way caused by different work patterns.

There is an ongoing need in this area also for in-depth qualitative research into the nuances of group learning. The authors also believe that work pressures faced by students adversely affecting group learning may mean that greater attention needs to be paid to group work with workshops and that 2-hour formats of workshops may facilitate better important social interactions in group learning, as this may be the only time all members of the group may be present. The use of online learning tools, such as group manager in Blackboard, may also help students communicate and exchange information such as documents more readily than is traditionally the case. It also makes it easier for them to enforce group norms necessary for learning. One author of this article has also used online tools to submit group contracts and peer evaluations that are confidential, as a means of discouraging noncooperation in groups, as the peer evaluations can be used to adjust marks and the group contracts submitted on behalf of the group provides clear acceptable norms of behavior.

Group contracts are also a useful means of students identifying "free rider" behavior and enabling them to fire or remove nonproductive members from groups (Abernethy &

Lett Iii, 2005). They have also been shown to be an effective means of allocating tasks and responsibilities among group members (Aggarwal & O'Brien, 2008; Batra, Walvoord, & Krishnan, 1997), which may be important in helping students manage competing demands of work and study. Peer evaluations have also been demonstrated to help foster self-management in groups.

Another recent development in the management of group projects has been the use of wikis to record students' contributions to an assignment in a shared online space (Baltzersen, 2010). This approach may be useful in helping groups with students who have different working patterns manage their responsibilities (Fellenz, 2006; Gatfield, 1999; Russell & Goodnight, 2009).

The instructor also has been found to play a crucial role in influencing student's attitudes and beliefs toward group projects (Chapman & Van Auken, 2001). It is important that instructors carefully explain the group roles, group dynamics, help manage individual expectations, encourage students to use time lines, and encourage the development of conflict resolution skill within groups. This is especially important given the stresses and strain many groups may face with students working long hours.

In many ways, group learning may also reflect the difficulty of cooperation in the workforce, and managing the different work patterns and motivations of group members may also be an important graduate attribute that universities should see as an important skill to impart, rather than giving up on group work.

Appendix A

Measurements Used in the Study

Cognitive Benefits (all scaled as 1 = *strongly disagree* to 4 = *agree*)

Interacting with peers for this group assignment enriched my knowledge and understanding of marketing.

This group assignment provided me with the opportunity to get feedback on my understanding.

This group assignment gave me a chance to learn from my peers contribution.

This group assignment gave me a valuable opportunity to rethink my own ideas.

Participating in this group assignment gave me a chance to consider different opinions and thus broaden my understanding.

Motivating Influence (all scaled as 1 = *strongly disagree* to 4 = *agree*)

It was highly motivating for me to work on this assignment with a group of peers.

I stayed motivated throughout this assignment *because* it was completed as a group.

In this assignment we motivated each other.

It was easy to get all the other group members motivated to contribute to the assignment.

My motivation for the assignment decreased because of the group (reverse coded).

Affect (all scaled as 1 = *strongly disagree* to 4 = *agree*)

I loved the idea that this assignment could be done within a group.

I was happy to work on this assignment with a group of peers.

I was angry that this assignment was completed on a group basis (reverse coded).

Working on such an assignment with a group of peers was quite exciting.

I was disappointed that I could not do this assignment on my own (reverse coded).

Interpersonal (all scaled as 1 = *strongly disagree* to 4 = *agree*)

This group assignment generated conflict among members (reverse coded).

Doing this assignment was *not* good because people argued with each other.

Getting along with other members of the group for this assignment was difficult at times.

The group assignment provided an opportunity for everyone to feel included.

In this assignment it was easy to create a group atmosphere where everyone felt comfortable to express their views.

Management (all scaled as 1 = *strongly disagree* to 4 = *agree*)

It was hard to reach a consensus when working on this group assignment.

Doing this assignment as a group was less time consuming than if I had done it myself.

I believe that in this group assignment everyone made a valuable contribution to the work that was required.

Finding an effective way of coordinating the work between the group members was quite difficult (reverse coded).

Finding a time to meet or an effective way to communicate for this group assignment was difficult (reverse coded).

Group Assessment (all scaled as 1 = *strongly disagree* to 4 = *agree*).

Group assessment for this assignment was no problem for me.

I did not mind the group assessment for this assignment. We should not have been assessed as a group for this assignment (reverse coded).

This group assignment should have been assessed on an individual basis.

Group assessment was unacceptable for this assignment (reverse coded).

(continued)

Appendix A (continued)

General Attitude to Group Work

What is your current view of group projects at university? (1 = *not positive*; 4 = *very positive*)?

General Attitude to Cultural Mix (all scaled as 1 = *strongly disagree* to 4 = *agree*).

I think tutors should systematically mix international and local students for group assignments.

Whenever I can, I try to join groups than have that have both local and international students for group assignments.

Forcing local and international students to mix for group assignments should be avoided (reverse coded).

In classes with large numbers of international students, all group assignments should include international and local students.

Encouraging local and international students to mix for group assignments is an excellent idea.

All items under each category were then summed, and then standardized for the purposes of analysis. Cronbach alphas were as follows:

Cognitive	.69
Motivation	.76
Affect	.81
Management	.65
Group Assessment	.74
Interpersonal	.69
Cultural Mix	.85

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