

Strength Through diversity? Learning Outcomes and Student Satisfaction with Group Projects in Marketing

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Abstract

Undergraduate students majoring in Marketing are required to engage in group projects throughout their study. The main educational rationale behind requiring students to work on group projects as an integral part of their study in marketing is that the experience of group projects is a good preparation for working in teams and managing work teams in the future. Little research has been conducted which examines the individual differences of learning outcomes with group projects. Results from a principles of marketing class (n=61) suggest that older students (>21 years) reported learning more about subject matter covered in group assignments, than younger students (<21 years). Students from non-Australian ESB and multilingual backgrounds reported gaining greater knowledge of working in teams than students from non-Australian ESB who were monolingual. Results also showed a number of interactions between age, gender and hours of work govern the degree of satisfaction students have with group learning.

Literature Review

There is general agreement in the marketing educational literature as to the importance of group learning or projects to marketing curriculum (Amato and Amato 2005, Deter-Schmelz, Kennedy and Ramsey 2002, Hernandez 2002, Huff, Cooper and Jones 2002 and McCorkle Reardon, Alexander, Kilng, Harris and Iyer 1999). Skills learnt from group learning are seen by preparing students to work in cross functional teams in the workforce (Huff, Cooper and Jones 2002). In a review of the educational literature on group learning McCorkle et al. (1999, p.106) identified six benefits of group projects and learning:

1. Comprehensiveness (allows for multifaceted projects).
2. Realism (emulates the workplace)
3. Communication skills gained by students
4. Group skills (both interpersonal and group management)
5. Technical skills
6. Motivation and Interest (helps provide conditions for active learning).

McCorkle (1999, p.108), however lists six problems with group learning or projects.

1. "Free riding" or social loafing by some members of groups.
2. Inadequate rewards (grading does not take into account individual as well as group efforts).

3. Skills and attitude problems (these vary according to the degree of individualism or collectivism values of students).
4. Transaction cost (greater effort to work in groups).
5. Integrative learning problems (unequal participation can occur, students may work separately and not understand what colleagues have done).
6. Other problems (doesn't allow for individual innovation, not able to pace and structure outputs and students don't receive feedback till later in the unit of study).

Both a positive and negative factor in group learning leading to these outcomes has been the element of group diversity. Some researchers in marketing education (Amato and Amato 2005; Hernandez 2002) 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 (Deter-Schmelz, Kennedy and Ramsey 2002). Amato and Amato (2005) also suggest that students need skills to manage personality differences in groups in order to achieve benefits of diversity in skills and backgrounds. Group Cohesion may be more difficult to achieve when students have different working patterns, or as suggested Deter-Schmelz, Kennedy and Ramsey (2002), there is a gender imbalance (since it is commonly believed that women favour a more collaborative solution approach, whilst a greater number of possible solutions arise from male dominated teams). Students from different cultural backgrounds may also have different values such as individualism or collectivism, which may also affect group and student learning outcomes (McCorkle et al. 1999) although prior research found no direct relation between the two (Volet, 2001). Furthermore, research on students' appraisals of completing group projects in mixed groups (Volet & Ang, 1998; Volet, 1999) highlighted the cultural-emotional challenges created by diversity, and the positive impact of personal experience of crossing cultural borders, Therefore the main hypotheses of this study were:

H1: Learning outcomes and student satisfaction will differ by gender.

Women are expected to display more positive learning outcomes than men, as group projects favour collaborative decision making but lower satisfaction since they may have to compromise this approach when dealing with men.

H2: Learning outcomes and student satisfaction will differ by hours worked.

Greater hours worked are expected to reduce opportunities for group cohesion and therefore group learning and student satisfaction will suffer.

H3: Learning outcomes and student satisfaction will differ by age.

Older students are expected to have greater interpersonal and group management skills, therefore be better able to ensure satisfactory outcomes.

H4: Learning outcomes and student satisfaction will differ by cultural background.

We expect that students with a personal experience of crossing cultural borders or with a multilingual background will have more positive views of group projects.

Methodology

Participants were from a Principles of marketing class (n=61), in which students completed two short case presentations and reports. Students received a group mark for the group work, which formed 20% of their total individual mark for their Marketing unit. The unit contained 169 students, meaning a response rate of 36% was achieved for students who completed both surveys.

Procedure and Research Instruments

Participants completed two questionnaires in class 9 weeks apart, one at the beginning and one at the end of the group project. The beginning questionnaire elicited information on students' prior experience of group projects in education and team work in the workplace, as well as demographic information, such as age, gender and weekly paid work commitments. In both beginning and end questionnaires, students were asked to rate their self-efficacy, multiple appraisals, and personal goals for the particular group assignment, as well as to indicate their two most important goals for that group assignment. In the end questionnaire, students were asked to rate the extent to which they experienced a number of possible challenges related to the group dynamics, to indicate which one was the biggest (if any) and what they themselves, and separately the group as a whole did to cope with that particular challenge. The end questionnaire also elicited students' perceived cohesion and efficacy of the group, as well as their views of what they thought they had learnt from the group assignment, in terms of marketing knowledge and knowledge and skills to work in teams in the workplace, further details of the measurements used are discussed in (Volet, 2001).

Of interest to this study at the end of group projects student were asked to indicate the following; What subject knowledge they had gained from the group assignment, What skills and knowledge they gained from working in teams in the workplace, and further knowledge they gained from working with culturally diverse groups (which they could ignore if their group was not culturally diverse. These items were all scored on semantic differential scale from 1 (I learnt nothing) to 4 (I learnt a lot). Students were also asked if the group played a positive role in helping achieve learning outcomes rated from 1 (The group played a negative role) to 4 (The group played a positive role). At the beginning of the group project and at the end students were also asked for their current views of group projects which were rated from 1 (Not positive) to 4 (Very positive). This allowed for maturation and history effects to be studied as part of this research.

Results

Table 1, shows the abridged ANOVA results by gender, age (<21 years, >21 years), hours of work (less than 5 hours a week, 5-15 hours a week and 16 hours or more) and cultural background (classified by Australian / Non-Australia, whether the respondents had a English speaking background, and where monolingual or multilingual, five categories, note some small cells sizes, in some cases three limit the generalisability of these results). For the sake

of brevity only significant results are shown. As shown in table 1, there was no support for H1 and H2 (learning results and satisfaction differ by gender and hours working, respectively)

There was support found for H3, learning results differ by age. In particular, older students (>21 years) reported learning more about marketing, (mean=3.1) than younger students (<21 years, mean=2.83). The effect size or eta-squared for this result was considered large, of 11% of the variance of this variable explained by gender alone.

Table 1: Abridged ANOVA Results

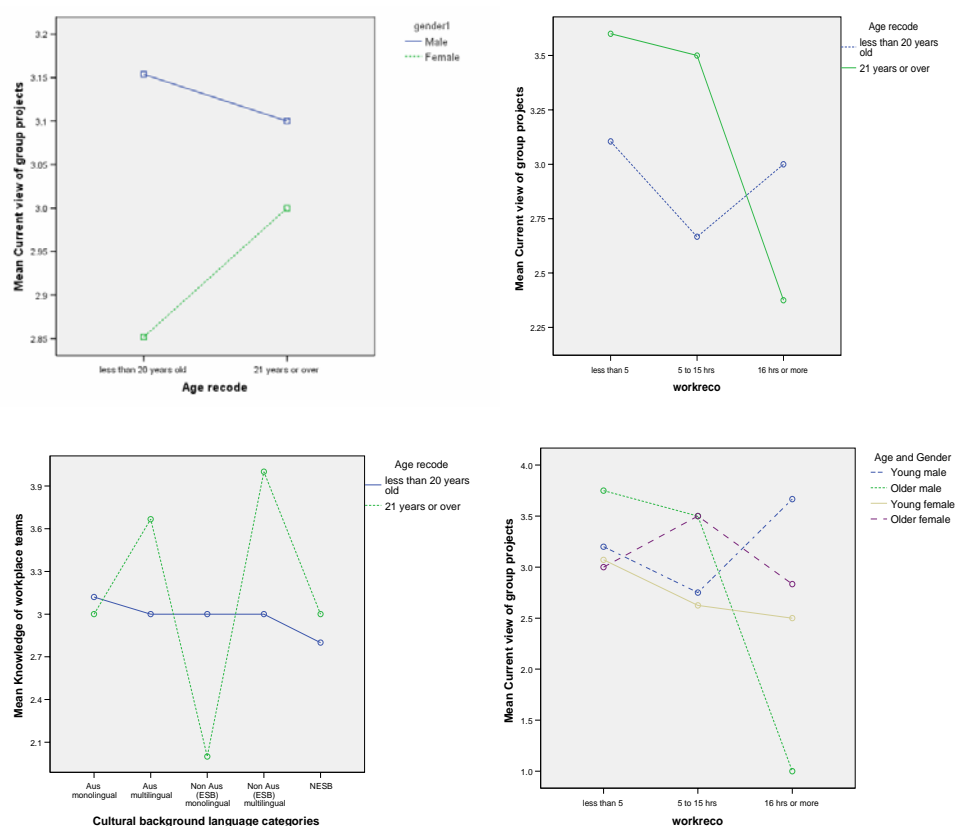
Source	d.f	Know. of subject	Know. of wplace teams	Know. of culture diversity	Role of group in learning	Current View of group projects
Age	1	3.62*				
Cultural background	4		2.95**		3.05**	
Age x Gender	1					4.53**
Age x Working hrs	1					17.32**
Age x Cultural background	1		3.08*			
Gender x Age x Cultural background	1					15.74**

Note: *p<.10, **p<.05

Support was also found for H4 (learning outcomes and satisfaction will differ by cultural background) in this case knowledge of workplace teams and the role of the group in learning. In particular, Non-Australian students from English speaking backgrounds (ESB) who were multilingual reported greater gains in knowledge of workplace teams (mean 3.5) compared to non-Australian students from ESBs who were monolingual (mean 3.0, p<.05). This may be because having a multilingual and non-Australian background may mean students can best learn workplace team skills since they have already developed a capacity to learn with people from different backgrounds. The difference between these two groups mirrored how positive they were of the experience of group projects. Non Australian ESB multilingual speakers had a more positive current view of group projects (mean=3.75) compared to non Australian ESB who were monolingual (mean=2.33, p<.05). The effect size of cultural background on both these variables was large, 29% of the variation of knowledge of workplace teams being explained by cultural background and 30% of the current view of group projects also being explained by this factor.

There were also a number of significant interactions. These are shown in figures 1-4. Figure 1 suggests that) male students were more positive about group projects than female students, although this gap close with more mature aged students (>21 years). In figure 2, older students were generally found to be more positive about group projects though this relationship is reversed after more than 16 hours of work a week, with younger students being more positive. This may reflect the effect of full time work on student satisfaction with group learning. In figure 3, older non-Australian's from ESB reported the greatest obtaining the greatest knowledge of workplace teams compared to younger students from non-Australian ESB who were monolingual. The last interaction a 3 way interaction between age gender and working hours shows Older males working over 16 hours a week had the most negative views on group projects, whilst the opposite is true for younger males.

Figures 1-4:
Interactions for Age x Gender, Age x Working hours, Age by Cultural background and
Age x Gender x Working hours.



Conclusion

The results show that marketing students' perceptions of learning outcomes out of group projects differ within and across sub-groups. This study found that older students reported greater benefits of gaining knowledge to work in workplace skills, and students who are multilingual non-Australian from ESB appear to also gain most from group learning (especially if they are older). The interaction of age gender with work hours shows that satisfaction for male older students working full time with group projects should be of concern given the large effect size found in this study of an eta-squared of .37, or 37% of the variance explained. Therefore not all students are equally as happy with group learning. This research only considered differences in perceived learning outcomes and satisfaction amongst some demographic groups of 1st year students. The authors are also examining students' goals, motivations, perceptions of challenges and strategies to achieve these that occurred within groups, which is also expected to determine perceived learning outcomes. That research includes students in 2nd and 3rd year classes so that what students learn and how they learn in group projects can be studied in more detail. Research like this is important as group projects and collaboration are an important graduate attribute of many universities and is a skill in demand with employers as well.

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