

Group Projects Using Clients Versus Not Using Clients

Do Students Perceive Any Differences?

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Today's educators are faced with the challenge of preparing undergraduate students to be productive employees who can communicate effectively, work well in teams, and solve problems, as well as demonstrate content knowledge. Group projects are one tool that educators can use to help students develop these key skills. Educators may be tempted to try client-based projects in which students consult with real companies, an approach that may involve extensive preparation for the faculty member, or opt instead for a less labor-intensive option, such as having students work on hypothetical problems for established companies. Faculty must decide what type of project will most benefit their students and, at the same time, will not be too complex to administer. In this article the authors discuss literature regarding group projects using real world clients (client-based learning) and they empirically test whether the nature of the project has any influence on how the students perceive the project as a motivational tool, a learning device, and a contributor to their skill development, and the personal benefits they receive from completing the project. Understanding these issues will help instructors to better design and administer group projects.

Keywords: *client-based learning; group projects; teaching; undergraduate business education*

One of the challenging decisions that educators must address when choosing to implement a group project in an undergraduate business or marketing class is deciding on the type or nature of the project they will use. The process used to implement the project is just as important as the material that the project addresses and may make a difference in how and what students learn. Group projects may involve different approaches that may include projects in which students work with actual clients, use published case studies, participate in simulations, or address hypothetical problems of established companies. To make the right decision, educators must evaluate advantages and pitfalls of these approaches for students and for themselves as educators. The goal of this study is to examine whether students perceive one of type of group project, a client-based project, as more effective than another type of project, a non-client-based project in which students address hypothetical problems.

There are a few studies that indicate that client-based group projects are effective (Goodell & Kraft, 1991; Lepkowska-White & Parsons, 2006; McEachern, 2001) but it is still unclear whether it is because they employ business clients or because they require students to work in groups. Past studies suggest group projects may be preferable to individual projects or other types of learning (Ashraf, 2004;

Chapman & Van Auken, 2001; McCorkle et al., 1999; Payne & Monk-Turner, 2006; Williams, Beard, & Rymer, 1991). A few studies do make comparisons across types of group projects but their results have significant limitations. A study by Bournier, Hughes, & Bournier (2001) compares (a) student perceptions of one group project, administered to first-year students at one university in one discipline, in which students worked with a real organization to (b) a study by Garvin et al. (1995) in which another first year group project was administered in a different discipline at a different university and did not involve a real organization. Results from the Bournier et al. (2001) study show students highly value the fact that their project involved a real organization. Abernethy and Lett (2005) compare student perceptions of a short-term case study to their perceptions of a longer term client-based project, but the study focuses on how to prevent free riding and not on the differences between the two types of projects.

How Does Client-Based Learning Differ From Other Group-Based Approaches?

Client-based learning involves students working on a problem for a business client. This approach can involve a

small or large business and a for-profit or a not-for-profit business, and the level of involvement and amount of student contact with the client company can vary (Clark & Whitelegg, 1998; Swan & Hansen, 1996).

Existing literature shows that from the student perspective client-based learning implemented in groups provides real life experiences by allowing them to work with and to present their projects to business clients (Goodell & Kraft, 1991; Swan & Hansen, 1996). Often the course content with a client-based project seems more real and students are more interested in learning (de los Santos & Jensen, 1985). McEachern (2001) suggests that "client projects challenge students in ways that not even the best-written case study or end-of-the-textbook chapter exercise can duplicate" (p. 211). Prior studies also suggest that client-based group projects help students develop the skills they need to succeed in their future jobs (Cooke & Williams, 2004) and are valued by recruiters. Students may also be more interested in the project if they perceive it as being relevant to their careers (Razzouk, Seitz, & Rizkallah, 2003). A survey of alumni with two to seven years of postgraduate work experience showed that the alumni felt that client-based projects helped them to develop reporting, research, problem analysis, and small group collaboration skills (Wickliff, 1997). Some suggest that client-based learning helps students improve their communication, critical thinking, teamwork, and problem-solving skills because they learn how to work collaboratively between themselves and also with the client (Cooke & Williams, 2004; Gremler, Hoffman, Keaveney, & Wright, 2000; Scribner, Baker, & Howe, 2003).

Despite all the benefits of client-based projects for students, there are problems unique to the approach but they have not been extensively investigated in past studies. The few studies that do acknowledge problems have shown that students, especially undergraduates, may be overwhelmed by the ambiguity of client-based projects (Kennedy, Lawton, & Walker, 2001). This could be attributed to the fact that students, particularly undergraduates, are just learning the fundamentals; they are overwhelmed with the task of having to immediately apply them and then present their ideas to real businesses. They may also become frustrated if the clients are not responsive enough and cannot or do not want to provide them with sufficient information about their businesses (Kennedy et al., 2001). Students may also believe that client-based projects are too time-consuming (de los Santos & Jensen, 1985).

From a faculty perspective, client-based projects might be used to help faculty stay in touch with current business practices and trends, to help them to learn about a particular business or industry, and to gain networking opportunities (Cooke & Williams, 2004). Client-based projects provide real world applications and can link the educational institution and the community (Cooke & Williams, 2004; Goodell

& Kraft, 1991; Razzouk et al., 2003). Client-based projects also provide faculty with business examples and potential research or consulting opportunities (de los Santos & Jensen, 1985). They may also generate resources for the college in the form of potential donations of money and time from the business community.

Faculty members who have used client-based projects also recognize that there are problems associated with this approach. Group projects that use real clients can become very time-consuming. The faculty member must screen potential clients for appropriateness and reliability, decide the nature and scope of the project, invest time before implementing the product, manage and set client and student expectations throughout the course of the project, and decide how to provide useful and timely feedback (Lopez & Lee, 2005). Finding appropriate real-life projects that meet the needs of both the instructor and the students can be a challenge (Goodell & Kraft, 1991; Razzouk et al., 2003). Client-based learning may require more effort and instructor involvement than other types of classroom assignments because instructors must actively engage students in complex problem solving (Clark & Whitelegg, 1998; Kennedy et al., 2001; Razzouk et al., 2003). Faculty members might also resist using client-based projects because they do not see the rewards of implementing them, as other activities, such as research, are more valued at their university (McIntyre, Webb, & Hite, 2005).

Given the potential frustrations for students and the extra costs associated with the process of implementing group projects for faculty, there is a need to investigate whether students perceive any extra value from doing a client-based project or if the same results can be achieved by using a project that does not use a real client. If students perceive the value of one type of a project to be greater than another type of project, they may be more motivated, exert more effort, and ultimately learn more from the experience. It is also important to determine whether students just prefer the group-project approach to other types of learning or if they actually prefer having a client as the focus of the project, as a few studies suggest. Perceived value has been suggested as an important predictor of student-reported effort (Pokay & Blumenfeld, 1990). Understanding if the type of project assigned makes a difference in motivating students to learn can help educators choose the right type of project for their students.

This article will compare student perceptions of projects similar in their scope but different in the way they were administered. One approach involved group projects in which students consulted with actual clients who presented them with real problems. The second approach involved group projects with companies that the students selected themselves and they identified hypothetical problem that the businesses could be facing.

Research Questions

The purpose of this article is to shed more light on the issue of whether working with a real business facing a real problem adds value to the student's group learning. We investigated whether undergraduate students differ in their perceptions about group projects when the focus of the project is on a real life client compared to projects with companies for which the problem the students are facing is hypothetical. We also tested whether these perceptions differ with students' major. These issues have not been researched in the past and therefore are addressed in this article. The specific objectives of this study include comparing

- students' motivation to learn through client-based learning versus non-client-based learning,
- the effectiveness of client-based learning versus non-client-based learning,
- the client-based group project's specific contribution to the development of their knowledge and skills compared to a non-client-based project,
- the personal benefits derived from the client-based learning experience versus the non-client-based learning experience, and
- these perceptions between students pursuing different majors.

Method

To address the objectives of this study we used a convenience sample of 293 undergraduate students (ranging from sophomores to seniors) at two small liberal arts northeastern colleges. The students participated in group projects that involved designing marketing plans either for real business clients (138 students) or for companies facing hypothetical problems (155 students). About 39% of the sample were women; 72% were business majors and the rest majored in economics, government, art history, psychology, education, or English, or were undeclared.

The courses included in this study were taught by three different instructors. Client-based projects were administered in four sections of Marketing Foundations (Instructor A, Fall 2005, two sections, 39 students; and Spring 2006, two sections, 31 students), two sections of Marketing Research (Instructor C, Fall 2005, 19 students; and Instructor A, Spring 2006, 17 students), and two sections of Advertising and Promotion (Instructor B, Fall 2005, 32 students).

Non-client project were administered in five sections of Marketing Foundations (Instructor A, Fall 2006, one section, 21 students; Fall 2007, one section, 20 students; Spring 2008, two sections, 39 students; and Instructor B, one section, 21 students), one section of Marketing Research (Instructor A, Fall 2006, 16 students) and two sections of International

Marketing (Instructor C, Fall 2006, 18 students; and Instructor A, Spring 2008, 19 students).

All of the students had been exposed to group projects in other business classes and therefore were very familiar with group projects in general. All of these courses used a similar template that outlined the project (the project consisted of an introduction, SWOT Analysis, marketing/advertising/research plan, evaluations, and conclusions) and grading criteria. In all these classes, students were asked to develop a marketing plan based on secondary and primary research collected by the students. However, the emphasis in the plan varied in the different courses (in the Advertising and Promotion class, for example, the focus was on advertising and promotion and in the Marketing Research class the emphasis was on collecting and analyzing data). In all of these classes, the projects were divided into three parts and students presented each part and then revised them throughout the semester. At the end of the semester, students prepared a written final project and presented it to the class and, in the case of the client-based project, presented it to both the clients and the class. Thus the format of the project was the same between the client and nonclient projects; the only difference was employing or not employing the client.

To measure students' perceptions we developed scales that measured Student Motivation to Learn, Project as Learning Device, Project Contribution to Marketing and Marketing Research Knowledge, and Skills and Personal Benefits based on perceived skill measures from Goodell and Kraft (1991). Student attitudes were measured using a 5-point Likert-type scale (1 = *strongly disagree* and 5 = *strongly agree*). Factor analysis showed that each item loaded on the desired scale with factor loadings of above 0.49 and scale reliabilities were above 0.72. Scales, their reliabilities, and factor loadings are shown in the appendix. At the end of the survey, we also included one open-ended question that asked students for their personal comments about the project. Administration of the survey took about 7 min.

Analysis and Discussion of the Results

Students' perceptions of the two types of projects were evaluated on four dimensions—Student Motivation to Learn, Project as Learning Device, Project Contribution to Marketing and Marketing Research Knowledge, and Skills and Personal Benefits. We analyzed the quantitative data using 2 (Type of Projects) $\times$ 2 (Business vs. Nonbusiness) MANOVA and followed with Bonferroni tests to examine specific differences (Table 1). We used content analysis for the qualitative part of the survey.

MANOVA shows that there was no interaction between major and project type (Wilks's Lambda = 0.99; $F = 0.93$) as students' perceptions did not vary with their major (Wilks's Lambda = 0.98; $F = 1.61$), but there was a

Table 1
Multivariate and Univariate Results

Independent Variable	Wilks's Lambda	Hotelling's Trace	Roy's Largest Root	<i>F</i> Value	Motivation to Learn	Project as Learning Device	Contribution to Marketing and Marketing Research Knowledge	Skills and Personal Benefits
Type of project	0.957	0.045	0.045	3.220***	10.560***	0.010	1.620	7.350**
Major	0.978	0.023	0.023	1.607	2.206	0.048	2.908	0.134
Type of Project $\times$ Major	0.987	0.013	0.013	0.933	0.886	0.585	0.216	0.836

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

Table 2
Means and Standard Deviations for Project Type

	Non-Client-Based Project		Client-Based Project	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Students' Perceptions Scale				
Student Motivation to Learn	4.026	.7005	3.749	.7579
Project as Learning Device	4.276	.5957	4.188	.5856
Contribution to Marketing and Marketing Research Knowledge	3.769	.6387	3.763	.6176
Skills and Personal Benefits	3.803	.7236	3.574	.7171

significant main effect observed for the project type (Wilks's Lambda = 0.96; $F = 3.22$) at $p < .01$. To explore the main effect, the means and standard deviations are presented in Table 2.

The table shows that in general, students rated both types of group projects rather positively on the dimensions tested in this study (their evaluations were above 3.7). There were no significant differences in students' perceptions of these two approaches as teaching devices, as both were rated highly (4.3 for nonclient projects and 4.2 for client-based projects) on their realism, their ability to integrate and illustrate marketing material, and their helping students to remember the concepts better. Students also felt that both projects equally contributed to developing their marketing research and marketing skills (mean of 3.8 for both projects) by demonstrating practical problems associated with research, showing them ways to evaluate and identify good quality marketing research, as well as helping to better understand consumer response to marketing.

The results also show that, in general, both projects motivated students more than other teaching methods, such as cases and lectures, and made the course more interesting and enjoyable. However, interestingly, this motivation to learn was higher for theoretical projects (4.03) than for client-based (3.75) projects at $p < .01$. Similarly, even though the projects' contribution to developing students' teamwork,

report preparation, and interpersonal skills was rather high for both projects, the mean was significantly higher for theoretical projects (mean 3.80) than for client-based projects (mean 3.60) at $p < .01$.

Finally, many students did not respond to the open ended question. Those who did respond frequently referred to the two projects as "time-consuming," "challenging," "effective," "practical," and "intense." Many stated that the projects "build more interest in the course" and "helped them apply the concepts studied in class to real life situations." They liked "hands on experience" and the "ability to see what they learned," even though some expressed their frustrations over working in groups. These comments were common for the two types of projects. Additionally, for client-based projects students stated that they "like the comments and the interactions with their business clients" but are also frustrated over their "inability to reach clients when they needed to" or "lack of sufficient dialog with the businesses" they worked with. Some felt overwhelmed by the scope of the project and the fact that they have to learn the concepts, create a project, and present it for a real client. Others wished that they worked for a different business.

Conclusions

Overall, the results show that students perceive group projects as very valuable educational experiences regardless of the process used. This supports past research that shows that students believe that group projects in general, even though time-consuming, motivate them to work hard and provide them with a good learning experience. The study also shows that these perceptions did not vary with a pursued major.

Our research also demonstrates that overall undergraduate students find theoretical projects to be equally or, in some cases, even more effective than projects that utilize real businesses. Specifically, students believe that both approaches help them to integrate and illustrate the material better in a realistic manner that allows them to remember more. Both

types of projects contribute to their marketing and marketing research knowledge and motivate them to learn more and gain more skills. However, students also believe that theoretical projects motivate them more and contribute more to helping them develop their teamwork, report preparation, and interpersonal skills than client-based approaches. Student responses to open-ended questions help to understand these findings. Students consider client-based projects as more time-consuming (although both approaches were considered to be very time-consuming) and more frustrating than theoretical projects. Clients may be difficult to reach or too busy to talk with the students and they may also not be able to provide them with the information students need. It seems that at the undergraduate level when students are still learning how to apply the foundations of marketing, the experience with a real client may be, as some students stated, a bit “overwhelming” and “threatening.” This does not mean that using clients is not beneficial to students; rather the study suggests that both approaches are effective and that theoretical projects, which give the students more control and a feeling of security, may motivate undergraduate students as equally as or more than client-based approaches.

So what do these findings mean to faculty? Using real clients often requires a great deal of effort and hard work by the educators. They have to make sure that the problem the client is facing is appropriate for the class; they need to meet with the client prior to the beginning of the semester to agree on a plan

of action, write a contract, and then organize meetings with the class and the client during the semester. For client-based projects to be effective, faculty need to supervise the relationship the students have with the client, encourage the students and the client to communicate frequently, and provide useful feedback to each other. Simply put, faculty members have to constantly stay on “top of things” before and throughout the semester, which is often challenging when supervising all the groups and all the interactions with businesses. This may be especially true with large classes. Taking into consideration all these costs and student perceptions, faculty may be right to question the use of the client-based approach in the undergraduate setting. It seems that undergraduate students may gain similar benefits or at least be equally or even more motivated when completing projects without clients.

It is important to keep in mind that these findings apply to the undergraduate level at smaller, private liberal arts institutions and the outcomes may be different with a different type of student (i.e., a student at a large, public university or at what is primarily a business school) and therefore should be tested in the future. Also we tested students’ subjective motivation to learn and their perceptions on what they had learned, and therefore there is a need to objectively evaluate and compare actual learning outcomes with the use of the two approaches. Finally, it would also be useful to measure the faculty members’ perspectives on implementing group projects in their courses using both types of approaches.

Appendix

Scale Reliabilities (α) and Rotated Component Matrix

Scale	Component			
	1	2	3	4
Student Motivation to Learn ($\alpha = .83$)				
I preferred the project to an all lecture course.	.788	.073	.087	.089
I preferred the project to analyzing cases.	.786	.023	.043	.052
The project increased my interest in the course.	.793	.316	.113	.117
The project made discussions in class more enjoyable.	.789	.206	.086	.195
The project was worth the time spent on it.	.485	.278	.234	.322
Project as Learning Device ($\alpha = .77$)				
The project made the subject matter realistic.	.329	.664	.274	-.048
The project integrated the material in the course.	.124	.847	.074	.140
The project illustrated concepts in the course.	.047	.803	.059	.302
The project will help me remember the material better.	.280	.619	.290	.161
Contribution to Marketing and Marketing Research Knowledge ($\alpha = .72$)				
The project illustrated practical problems with doing marketing research.	.110	.297	.674	.076
The project illustrated “quality” in marketing research.	.128	.164	.681	.034
The project helped me understand consumer response to marketing.	.123	.020	.771	.164
The project will help me to evaluate market research done by outside professional suppliers.	-.005	.053	.759	.157
Skills and Personal Benefits ($\alpha = .74$)				
The project helped me develop my teamwork skills.	.164	.185	.095	.753
The project helped my report preparation skills.	.183	.143	.084	.820
The project helped me develop my interpersonal skills.	.065	.077	.194	.729

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