



Case study

Teaching applied value of marketing research: A questionnaire design project

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ABSTRACT

This paper describes a class project designed to teach students how to apply marketing research concepts in the context of surveys developed and used by local small businesses to assess their customers' views of the company's products and services. Specifically, students are required to obtain an existing customer service survey from one of the local companies and analyze it following specific guidelines for effective questionnaire design and data collection. After analyzing the original company survey, the students prepare a written report and a presentation to document their analysis and the recommendations for improving the original survey. The students also prepare a revised version of the survey to be shared with the management of the company that authored the original survey. The analysis of students' feedback and the peer reviews of the resource suggest that this assignment is both effective and easy to implement. The paper provides step-by-step instructions, guiding questions, assessment of learning results, and discussion of project benefits and challenges.

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1. Introduction

For several decades marketing educators have been debating the relevance and breadth of marketing research curriculum (Achenreiner, 2001; Bradstreet, 1996; Ganesh, 1992; Mills, 2010; Nonis & Hudson, 1999). The discussion focuses largely on achieving balance between statistical training and developing other professional skills, including communication, presentation, and questionnaire design. In our own experience of teaching marketing research we have found that many students are apathetic and detached from the course content. They often perceive it as difficult to understand and lacking any practical value.

In response to these challenges some marketing educators have embraced experiential learning, hoping to engage students through client projects. Experiential learning is a valuable methodology that benefits everyone involved: students, instructors, and participating companies (Kennedy, Lawton, & Walker, 2001; Razzouk, Seitz, & Rizkallah, 2003; Smith & Van Doren, 2004; Young, 2002). Instructors improve their teaching effectiveness by providing students with opportunities to apply their knowledge. Students begin to understand the advantages of having strong research and data analysis skills. Client companies benefit from creative insights about their customer research. In addition, client projects help build relationships with the local business community and foster a strong research reputation for the university graduates.

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In this article we present a class project grounded in experiential learning. This home assignment was implemented in Marketing Research Applications, which is an elective course offered for marketing majors. Most students taking this course are juniors and seniors, who are one or two semesters away from graduation. Marketing Research is a prerequisite for this course.

The main learning objectives of this project include improving students' understanding of how to design an effective questionnaire and promoting the practical value of research among students. Students learn how to apply their knowledge of research methods in practice. They also gain a better understanding of which aspects of customer service the local businesses consider important for success.

Questionnaire design is a very important topic in marketing research because the quality of research conclusions depends entirely on the quality of the underlying data. In turn, the quality of the data depends largely on the research design of the study, including the sampling plan and the questionnaire. Designing a good questionnaire is a challenging task that involves many interactive elements like questionnaire wording, order, format and scale selection (Bove & Davies, 2009). The proposed project complements marketing research theory by offering students an opportunity to implement research principles in a real project.

2. Project

For the purpose of this project, students assume the role of marketing experts hired to help a local firm with developing an effective questionnaire for surveying customer attitudes toward its products and services. The project is organized in four steps that require students to become actively involved in client selection, questionnaire analysis, presentation of findings, and client communication. Each step is discussed in detail in the following sections. This project can be implemented individually or in small groups, depending on the size of the class. Here it is described as a group project.

2.1. Step one: client selection

In most cases, the success of experiential learning projects depends on the instructor's ability to select appropriate companies to serve as clients. The selection process can be indeed a challenging endeavor: a potential client should not only have a managerial problem that is suitable for the project but should also be willing to cover any related costs (Bove & Davies, 2009). These selection criteria, however, do not apply to this project. In fact, this project can be implemented with minimal client involvement thus making it easier for the instructor to control the scope of the work and the pace at which the students must complete it.

The first step of the project requires that the students select an appropriate client from local businesses (e.g., restaurants, hair salons, and retail outlets). There is no restriction as to the type of business that the students can consider for the project. The only qualifying criteria are that the potential client is a local company and that it is already using a survey to assess customers' attitudes about its products and services. The students must visit local companies and obtain their existing customer service questionnaires and contact information (e.g., mailing address and a manager's business card) to be used in follow up correspondence.

In addition to obtaining the company's existing customer service questionnaire, the students are required to conduct some observational research aimed at identifying various factors that may influence customer motivation and opportunity to fill out the customer service questionnaire. Such factors may include placement of the questionnaire in the store, availability of pens/pencils and tables, questionnaire delivery methods (e.g., send in the mail or leave in a provided box), and incentives for filling out the questionnaire.

After selecting a client, the students must scan the company's original customer service questionnaire to create a digital copy and then post it on WebCT along with the company's name (WebCT is an online board used for student–teacher interaction). One of the challenges at this stage of the project is to ensure that no two groups pick the same company to analyze. To avoid this, students are encouraged to identify at least three potential clients and check other groups' choices by reviewing their WebCT postings.

Posting the clients' original customer service questionnaires on WebCT accomplishes two goals. First, it gives both the instructor and the students adequate time to review these questionnaires and propose suggestions for improvement based on their own assessment of the questionnaires' strengths and weaknesses. As a result, the instructor is able to provide constructive feedback and the students can earn extra credit points for providing recommendations to their peers after each presentation. Secondly, the instructor may determine that the client's customer service questionnaire is not suitable for the project and therefore the team has to select another client. This determination must be made early in the project before the students become actively involved in the questionnaire analysis.

One of the benefits of involving students in client selection is that it encourages them to start networking with the local business community. Networking is an important professional skill; yet few graduates know how to create and grow their professional networks. In our experience, one of the major impediments to networking is the fear of rejection and the resultant embarrassment. Thus, this part of the project forces students to confront their personal fears and initiate a conversation with a local business that could potentially develop into a mutually rewarding relationship. The instructor plays a critical role in preparing students for interactions with the local businesses. The students must be reminded that they represent the university and therefore should look, speak, and behave in a professional manner. The instructor should provide

his or her business card and encourage the students to speak with a manager in order to explain the purpose of the project. The instructor's business card serves a dual purpose: it boosts the students' credibility and gives the company manager an opportunity to learn more about the project.

Though the project does not require active participation by the clients, it still leaves an opportunity for interested clients to become involved in the project. During the initial contact the students explain the goals of the project and ask if management would like to provide their own perspective on the strengths and weaknesses of their current customer service questionnaire. The management insights are then integrated into the students' analysis and recommendations.

2.2. Step two: questionnaire analysis

During the second step the students are required to analyze three questionnaire-related elements: the analysis plan, the quality of the items in the questionnaire, and the questionnaire environment. Analysis plan outlines what types of statistical analysis can be conducted with available data and what factors serve as dependent and independent variables for such data analysis. Overall, its purpose is to determine which research questions can be answered by analyzing available data. In regard to the quality of the items in the questionnaire, the students examine the survey questions in terms of clarity, sensitivity, length, and so on. The questionnaire environment analysis addresses concerns about the ease with which consumers can complete the survey. The questionnaire environment is the enabling factor that can either promote or inhibit customer feedback.

The instructor should provide a list of questions to help guide the students' analysis. A suggested set of questions is provided in the [Appendix A](#). To receive credit, the student teams must submit a write-up of their analysis to the instructor.

2.3. Step three: questionnaire improvements

The third step focuses on questionnaire improvements. Students can drop or modify existing questions and suggest adding new questions. The instructor should emphasize the importance of using critical reasoning and logic to justify each recommendation. The students should be reminded that the main focus of the project is on creating a meaningful questionnaire that can efficiently capture customer attitudes and other relevant information. Therefore, the length of the questionnaire is only relevant to the extent that it helps or impedes data collection.

As a result of the analysis, the students are required to create a new analysis plan and explain why their new questionnaire is better than the original one. Both the new analysis plan and the revised questionnaire should be submitted to the instructor for grading. Furthermore, the students should print out a copy of the revised questionnaire to be mailed to the client company.

2.4. Step four: presentation

During this last step the student groups present their analysis and submit a final report. The final report includes a separate Appendix with a stamped and addressed envelope, the original survey, a copy of the new modified survey, and a cover letter signed by each student in the group. In the cover letter, students explain the purpose of the project and include a brief summary of their questionnaire analysis. Specifically, they explain the weaknesses of the existing questionnaire and suggest ways to improve it. In conclusion, the students ask the client company to respond to their suggestions and invite the company's representative (or manager) to visit the class and share their thoughts about marketing research and business in general.

3. Grade structure

A sufficient number of points should be assigned for each step to ensure that students are motivated and engaged throughout the project. For example, if the entire project is worth 100 points, the first step could be valued at 10 points, the second step at 15 points, the third step at 20 points, and the fourth step at 55 points (20 points for the presentation and 35 points for the final report). Some of the final report points could be withheld until the students submitted their report corrections. This would encourage students to revise their final report and complete all corrections prior to sending their letter to the client. In addition, the instructor should reserve some extra credit points to reward students for making valuable contributions in critiquing other groups' questionnaires and pointing out issues and problems that were overlooked by the presenting teams.

4. Assessment results

At the end of the semester the students completed a survey designed to assess the effectiveness of this project. The survey questions were adapted from [Pearson, Barnes and Onken \(2006\)](#) and included 7-point Likert-type items. Using factor analysis we identified three evaluation factors: recognition, self-evaluation, and application ([Table 1](#)). Self-evaluation was a multi-item scale and therefore, a summated scale was created to represent this factor (Cronbach's alpha = 0.771). Two 7-point Likert-type questions assessing the students' overall evaluation of the project and their enjoyment were also included in the analysis.

Table 1

Assessment of learning measures and results (1—Strongly Disagree; 7—Strongly Agree; Sample size 35).

Questions	Mean
<i>Recognition Factor</i>	
1. Questionnaire Design project helped me to recognize the complexity of the process of designing a survey.	5.31
<i>Self-Evaluation Factor (summated scale)</i>	
2. Questionnaire Design project helped me to learn about basic principles of survey design.	5.69
3. I am able to apply successfully the knowledge I acquired doing this project.	5.51
4. I fully understand how to develop questions for a survey.	5.50
5. Evaluating a company's survey helped me to understand the do's and don'ts of survey design.	5.19
6. Now I can see the difference between successful and poor questionnaire designs.	6.13
<i>Application Factor</i>	
7. Questionnaire Design project has taught me how to evaluate different surveys created by various businesses.	6.12
<i>Overall Attitude</i>	
8. Overall, I would rate the Questionnaire Design project as a good learning activity.	5.56
9. Overall, I would rate the Questionnaire Design project as an enjoyable activity.	5.94
<i>Student Comments</i>	
<ul style="list-style-type: none"> • This project is a good learning activity which helped me to learn the principles of survey lesson and how to develop questions. • I'm not very prepared to elaborate on surveys because I feel that I need to practice more the questionnaire process. I liked and enjoyed this project. • Helped me learn but presentations seemed unnecessary. • Fairly simple project, maybe require students to get surveys from different industries next time. • This project was difficult for me because our chosen survey was really strong in its original form. • I got a few ideas to research surveys, so it improved my knowledge. • I thought it was overall a pretty good project. I really learned what to look for in a structure of surveys, as well as the dos and don'ts. • I guess this project was good for my future career, but it was a little bit complexity because of many questions. • This project was a good learning experience because it allowed us to apply the concepts we have learned about in class. We wanted to find a more place to get a survey from and allowing us to go to chains might have helped. • I like how the project was practical and relatable to the business world. 	5.12

A total of thirty-five students participated in the survey. Sixty-one percent of the participants were females; the average age was 21.6 years. The majority of the participants were juniors (82.5%). Students were assured that their responses would be coded to preserve their anonymity.

Judging by the means of the evaluation factors and the 'overall' attitudinal questions, the students' perceptions of the project were generally positive and significantly higher than the mid-point of the scale (see Table 1). The highest rated statement was related to good learning activity (mean = 5.94) and the lowest rated statement was related to perceived enjoyment of the project (mean = 5.12). This finding is not surprising considering the amount of work that students were required to put into this project. Statistical mean comparisons show significant differences between good learning activity and perceived enjoyment (mean_{diff} = 0.82, $t = 2.66$, $p = 0.018$) and between good learning activity and recognition factor (mean_{diff} = 0.63, $t = 2.18$, $p = 0.046$). This suggests that the students' evaluations of the learning activity include factors beyond the project's effectiveness in highlighting the complexity of the questionnaire design process. The students likely learned other important skills such as working together and thinking critically. In addition, it is possible that even prior to the project the students already perceived the questionnaire design process as complex. In this context, highly favorable evaluations of the learning activity suggest that the project helped students reconcile with this complexity. The students' comments further support this explanation (see Table 1). All other mean comparisons did not produce statistically significant differences. In future we plan to take such surveys on a regular basis in order to confirm our current findings and be able to compare reactions of students across time.

5. Discussion of the project benefits

The proposed project offers a simple and straightforward way for students to relate theory to their experiences. Unlike complex and lengthy questionnaires presented as examples in textbooks, local business research practices are not only easier to understand but are generally more relevant to students' lives. Many students work part-time at local companies, and this type of project offers an opportunity to show how they can add value to their employer. This project also uses a novel and intellectually stimulating project format to engage students in active learning about marketing research.

The project also helps students to better understand the conditions under which local firms operate. Pressed for time, consumers may not have an opportunity to answer a lengthy questionnaire. However, asking questions that cannot provide any meaningful information is a waste of time and money. This is an important issue for resource-strapped local companies that are always looking for ways to cut costs.

Finally, this project may be adapted to a service-learning project where students develop questionnaires for not-for-profit organizations. Not-for-profits typically lack financial resources and are less likely to conduct customer research even though they need data to help improve their performance.

The instructor may also benefit from this type of project. Reading and grading lengthy student reports typically requires a lot of time. One obvious advantage of this project for instructors is that it's not time consuming and can be graded very quickly. Advanced posting of original client questionnaires on WebCT allows the instructor to identify main problems in these questionnaires and address them as feedback after each presentation. In addition, students from other groups may contribute to the evaluation process by discussing problems that were omitted in the presentation. On the other hand, this project requires a lot of work from students such as choosing a client, analyzing the original client questionnaire, creating an alternative, and preparing a report and a Power Point presentation. In addition, unlike traditional client projects this type of activity can be implemented more efficiently because it does not depend on the clients' cooperation and support.

Finally, this project creates an opportunity for getting the local business community involved in the education process. Regretfully, many firms do not reply to the students' letters. Yet, some firms express their gratitude and still others accept the invitation to come to class and share their thoughts not only on research issues but on more general business issues as well. Such meetings are mutually beneficial as many students eventually get employment at local companies.

6. Challenges and suggestions

To avoid targeting the same firms every time, it might be prudent to provide new students each semester with a list of companies that have already participated in the project and therefore, should not be considered as potential clients. Also, some students may want to make their job easier by choosing a firm with an already well-developed questionnaire. In this case, the instructor may reject the chosen client and ask students to look for a questionnaire that has specific weaknesses. Alternatively, the instructor may approve the chosen client but ask students to change the main goal of the client's questionnaire. Online questionnaires, even if they are posted by local companies, are not a good choice for this project. As our experience shows, such questionnaires are much longer and do not give students an opportunity to investigate and suggest improvements related to questionnaire environment. Finally, with time the instructor is likely to collect a file of poorly designed questionnaires that can be used to illustrate various mistakes that students should avoid.

7. Conclusion

All educators can attest to the fact that students who are interested in the content outperform their disinterested peers. Therefore, it is very important to convert indifferent students into active and engaged learners. Our project helps to make such conversion by relating students' theoretical knowledge to business practice.

Appendix A. Questionnaire design project–questions

Step one: client selection

- Where are the surveys located in the store?
- Is it convenient for customers?
- Are there any ads or announcements about the survey?
- Are pens/pencils available for a customer to answer the survey?
- What is the way of submitting the survey (send by mail, put in a jar, etc)?
- Is there any incentive for taking this survey?

Step two: questionnaire analysis

- Based on the survey questions, what is its main goal?
- What main construct (dependent variable) is the firm trying to measure (e.g. customer satisfaction, customer purchase intentions, etc.)?
- What other constructs is the survey trying to measure (e.g. cleanliness of the store, etc.)?
- Do scales capture all domains of the main construct (main dependent variable)?
- How many single-item and multi-item scales are in the survey?
- If there are multi-item scales, how many items do they have and also how many points are in these scales?
- How many open-ended vs. close-ended questions are in the survey? Are there too many open-ended questions?
- Are there any duplicate/unnecessary questions?
- Are questions clear and easy to understand?
- Are there any sensitive questions?
- Is the survey too long or too short?
- Does the survey use the best format/layout?
- Does the survey use the appropriate size of letters?
- Is there enough room for answering open-ended questions?
- What questions can be answered by analyzing these surveys (what questions/scales can be used as independent and dependent variables)?

- What types of statistical analyses can be run based on available independent and dependent variables?

Peer reviews of the resource

First response

The exercise described appears well-constructed and student-centered. The instructor clearly put a lot of thought into each part of it. S/he pinpoints some important strengths as well as challenges of projects for actual business clients. I too have learned from experience that if the clients are carefully selected, students will benefit greatly from working with them. Having them analyze and redesign client questionnaires is a very clever way to engage students in a task many find onerous. The assessment added validity to the project. I would use this exercise in my class if I ever teach market research again.

Second response

I found this project very interesting. I will definitely try to use it next semester in my class. The detailed description gives me everything I need to implement it. I think such small practical assignments motivate students to do their best job - they feel empowered, engaged, and accountable for the quality of their work. I also think that increasing the university's and students' "brand" awareness among local businesses is a good idea. This does not only help our students connect with their future employers but also creates opportunities for faculty engagement through research and consulting.

Questionnaire design assignment

- Find a survey form at any **local** store, restaurant, sports club, hair salon etc. Take two surveys – one for you and one for me. Do not use national chains like Wal-Mart!
- Write down mail address and ask for a contact number/business card. You can explain that you are completing a project on questionnaire design and need some examples of surveys for your project.
- To secure your survey you need to check a list of prior clients/firms that is posted on WebCT.

Written report and presentation

- Briefly describe the firm (what products/services it provides, location, may be other facts like history etc.)
- Analyze the survey and make all necessary changes (answer all questions in the Attachment).
- Create a new survey – one to be used by the firm.
- Prepare a written report and submit it in class:
- In Appendix include the firm's mailing address, the original survey, your modified survey and a cover letter with a self-addressed envelope to be sent to the firm (see an example of the cover letter in the Attachment).
- Present your findings and suggestions in class.
- After the presentation make all changes based on my comments and submit your revised project.
- After my approval, mail the cover letter along with the original and the revised surveys to the business.

Good luck!

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