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Achieving Service-Learning Goals in a Financial Accounting Class Project

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Abstract

Background: A financial accounting class in a Philippine university has a service-learning group project that involves setting up a simple accounting system for microenterprises.

Aims: This paper examines the extent to which service-learning goals such as course learning, teamwork, civic responsibility, and impact on the client organization are achieved through this project, as well as how the level of student participation affects the achievement of these service-learning goals. It identifies measures to improve the quality of the service-learning experience for future implementation.

Sample: 187 second year business students in a Philippine university

Method: The students filled out a questionnaire which asked about their level of participation in the project, and their sense of achieving certain cognitive and affective outcomes from the project.

Results: Results show that these goals have been achieved to a large extent through the project, and that the level of student participation does positively affect the level of achievement of these goals. Furthermore, the achievement levels among the service-learning goals are significantly correlated, such that they seem to be mutually-reinforcing.

Conclusion: This paper supports the growing body of research work about the multiple benefits that service-learning brings to students, communities, and future citizenship in business fields of study. The accounting service-learning experience can be improved through better identification and screening of participating microenterprises, and through better management of student expectations regarding the magnitude of data-gathering needed for the project.

Keywords: Service-learning, learning outcomes, business education

達成財務會計課程專案的服務學習目標

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摘要

*背景：*菲律賓大學有一個財務會計班組織的有團體服務項目，這包括建立一個簡單的會計製度微型企業。

*目的：*本文探討在何種程度上服務的學習目標，如課程的學習，團隊合作，公民責任，並通過影響這個項目所取得的客戶組織，以及如何對學生的參與程度影響了這些維修成就學習目標。它確定了措施，以改善未來執行服務學習體驗的質量。

*示例：*187位菲律賓大學二年級的業務系的學生。

*方法：*學生填寫問卷，詢問他們參與這項目的程度，和他們從項目實現一定的認知和情意的感覺。

*結果：*結果表明，這些目標已經實現了通過該項目在很大程度上，這對學生的參與程度不積極影響這些目標的實現程度。此外，在學習目標的實現服務水平顯著正相關，這樣，他們似乎是相互加強的。

*結論：*本文的研究支持在業務領域的研究工作並且服務學習有關帶給學生，社區的多重效益，及未來的公民越來越多。會計服務學習的經驗可以提高項目的規模的數據收集需要通過更好的識別和微型篩選參與企業的方面，並通過更好地管理學生的期望。

關鍵詞：服務學習，學習成果，商業教育

Introduction

As businesses practice their corporate citizenship and try to respond to various challenges that go beyond the usual commercial spheres, such as calls for climate change mitigation, the effects of socio-economic inequity, and the need for honest governments, one cannot help but think of the educational processes that will produce future business leaders who will drive the manner by which businesses will respond. Business students who are confined within their own specialized bodies of knowledge will certainly encounter difficulties in dealing with multi-faceted, cross-disciplinary, and messily defined problems. There is also that issue of how to fuel the compassion and commitment to deal with these challenges in the first place.

Service-learning is relatively new in the Philippines, with the First National Conference in Service-Learning held only last 13 August 2008 at the Trinity University of Asia in Quezon City. Although many educational institutions have provided experiential forms of learning that engage marginalized members of society, such as internship, community service, outreach programs, and quasi-consulting activities, these are not the same as service-learning. In the United States, service-learning took on an institutional form when the presidents of leading American universities and the Education Commission of the United States started Campus Compact to address the perceived moral decline of college students (Morton & Troppe, 1996). From an initial membership of 23 schools in 1985, Campus Compact grew to over 1,100 two-year and four-year colleges and universities today (Campus Compact, 2010). A large body of research related to attitudes, behavior, and learning from service-learning activities, especially in the fields of social sciences and the humanities, has subsequently developed. (See Rama, Ravenscroft, Wolcott, & Zlotkowski, 2000 and Eyler, Giles, Stenson, & Gray, 2001 for their compilation and annotated bibliography.) In the field of business, however, even after Zlotkowski's (1996) urgent call for business educators to help students be more in touch with their external environment, with all its complexity and ambiguity, through service-learning, only a few articles on service-learning in business appeared in academic journals in the early 2000s. In Andrews' (2007) survey of service-learning articles in business, conceptual research on business ethics was the first to appear. Later on, articles on service-learning applications in business core areas (accounting, finance, management) as well as in graduate business courses followed. (See examples in Wilson, 2008; Gujarathi & McQuade, 2002.)

Rama (1998, p.17) defined service-learning projects in accounting as projects which are selected and designed in such a way that they "(1) meet a community need, (2) enhance understanding of material learned in accounting courses, (3) help in developing a broader appreciation of the accounting profession, (4) help in promoting a sense of civic responsibility, and (5) develop communication, teamwork, and interpersonal skills". The key points in this definition are that service-learning provides an environment for students to meet the learning objectives in a certain discipline, while at the same time, address certain community needs such that these two become the building blocks to develop other aspects of student competencies. In particular, service-learning can create the conditions that will teach students social responsibility and the personal skills to tackle social problems.

This article therefore has two objectives: (a) to evaluate a financial accounting class project in terms

of its service-learning outcomes; and, (b) to use the evaluation results and feedback from students to improve the design of service-learning projects for future implementation.

Service-Learning Goals and Outcomes

In a 5-year study involving over 22,000 college students, Astin, Vogelgesang, Ikeda, & Yee (2000) found support for the following student outcomes after the students have engaged in service-learning activities: (1) intellectual outcomes, such as knowledge of course content, appreciation of the discipline's role in real-life situations, and critical thinking skills; and (2) personal outcomes, such as leadership, communication, sensitivity to diversity, ethical conduct, and ability to promote constructive change. Eyler and Giles (1999) explain the theoretical basis for such outcomes. Basically, students who are faced with "real-world" problems work harder, and this is reinforced by their developing relationships with members of the client community. As the students search for solutions and constructive change, they increase their depth of understanding of the course content, as well as develop their sense of confidence and leadership.

Rama, et al. (2000) did an extensive survey on studies related to service-learning and found that the major limitations of studies involving intellectual outcomes is that grade improvements of students over a certain period could not be solely or directly attributed to service-learning activities since the students are also engaged in other educational activities. However, the preponderance of evidence across various studies, as well as their mutually-reinforcing findings, point to the ability of service-learning activities to develop higher-order thinking skills in students such as problem-solving, evaluating, applying knowledge to new situations, and synthesizing.

With regard to studies involving personal outcomes, Rama et al. (2000) found an even wider range of studies that explored various aspects of students' moral, civic, and interpersonal development. Many researchers created their own measurement tools for qualities such as moral reasoning, social responsibility, and racism so that their studies can be applied to large sample sizes that cover several courses and universities. Although there is no consensus as to which outcomes are most significant, Rama et al. (2000) reported that there is a generally positive relationship between service-learning and students' self-reported personal outcomes.

Many studies have documented the positive benefits experienced by the client organizations from service-learning activities. (See examples in Clark, 2000; Gujarathi & McQuade, 2002.) Interviews by researchers generally show that these organizations viewed service-learning positively, found the work of the students useful, and welcomed further involvement with the students. These positive benefits complete the cycle of learning and growth of the students, since students who believe that their actions can produce a positive impact on the community, or "social self-efficacy", are encouraged to be more involved during the course of the project, and even in future service-learning activities (Astin et al., 2000; Giles & Eyler, 1994; Reeb, Folger, Langsner, Ryan & Crouse, 2010).

This study examines only a limited set of outcomes, all based on questionnaires filled out by students. The first set involves intellectual outcomes, such as deeper understanding of accounting concepts, the accounting cycle, the role of accounting in running a business, and problem-solving. The second

set involves personal outcomes such as learning to work in teams and civic responsibility. The third set looks into the impact on the microenterprise, to get a sense of how students view their self-efficacy and ability to make constructive change.

The Accounting Service-Learning Project

Financial accounting is usually taught by teaching the principles first and then applying them to the preparation of financial statements. The focus is on completing the different stages of an accounting cycle. Exercises and cases are given to students to deepen their understanding of the concepts and the accounting cycle. However, these approaches are often limited insofar as answering more practical business-oriented concerns, such as the setting up of an accounting system and the trading-off of data accuracy versus recording effort. The teacher can probably discuss these concerns in class, but the answers to these concerns become more real to the students if they can explore the concerns themselves.

Setting up a simple accounting system for a microenterprise with no formal accounting system provides the students an opportunity to interact with the owner/manager as well as the few employees of the enterprise. The owner/manager is most likely someone with minimal formal business education, and almost no accounting background at all. Any business records kept are minimal. Exploring the various issues in setting up the accounting system would fulfill the intellectual outcomes of the service-learning project.

The personal outcomes of service-learning would also be fulfilled since many of the microenterprises tend to be struggling businesses that provide income opportunities for the families that operate the business themselves, and/or generate employment in the community for those that are able to hire people beyond family members. Many of these businesses are run by people from the low-income class, and thus represent a "culture" different from my students, who come primarily from the middle- to high-income classes. By helping these microenterprises, students provide a service that these microenterprises normally cannot afford, and thus, increase their chances to survive and grow amidst difficult economic times.

Since the students are learning the basics of financial accounting while trying to set up a simple accounting system, the deliverables of the project have to be timed such that the students have already taken up the concepts in class before they submit their deliverables. The financial accounting class takes up about 18 weeks (the class meets three hours a week). The first five weeks are spent on the concepts related to the income statement and balance sheet, and the steps in the accounting cycle. The next ten weeks are spent going through specific parts of the balance sheet and their corresponding item in the income statement. The last three weeks deal with the cash flow statement and financial analysis.

The accounting project required three sets of deliverables. The first set, due on the sixth week of classes, asked for background information regarding the company, the group's work plan, and the owner's consent (to participate in the accounting project) form. The primary concern at this point is to ensure that the business is not too simple nor too complex for the students to set up an accounting system. Microenterprises such as the neighborhood *sari-sari* (i.e., convenience) store, a small eatery, a water-refilling station, T-shirt printing, and a small auto-detailing shop qualified for this project.

The second set of deliverables, due on the tenth week of class, is the chart of accounts, the beginning

balance sheet, and the progress-to-date against the work plan. By this time, the students would have made several visits to their microenterprise, interviewed the owner/manager and key employees, observed the common transactions, and examined business transaction documents. The students should understand the logic of the business at this point such that they are able to identify the financial information needed to keep track of the performance of the business, in consultation with the owner/manager.

The third and final set of deliverables, due on 14th week of classes, consists of the financial statements, the supporting documents, and the owner's "understanding" form. All of the prior deliverables, which by now have been graded and commented upon, should have been revised and resubmitted along with the third set of deliverables, such that the entire set of documents becomes somewhat of an accounting system start-up manual for the microenterprise. Students at this juncture encounter critical issues of recognizing revenues and expenses that ultimately provide the answer as to how much the business is earning.

To ensure that the owner/manager examines the final outputs of the students, he is asked to sign the "Owner's understanding of financial statements" form. In signing this form, the owner is saying that the financial statements make sense to him, and that they fairly represent the financial condition of the business. This is another opportunity for the students to interact with the owner and learn more about accounting, as the students have to explain their recording process and the financial statements to the owner. Students get to reflect what the accounting system really means to the owner, and how likely he will adapt it to his business later on.

The deliverables of the accounting project are graded on the basis of the following criteria: correct application of accounting concepts, appropriateness of accounting system to the business, and clarity and organization of the deliverables.

Methodology

The students who passed the financial accounting course during the first semester proceeded to the managerial accounting course in the second semester. At the start of the second semester, a survey was conducted among the students to find out how the project has been able to fulfill the goals of service-learning. This survey was anonymous and was conducted after the financial accounting grades have been finalized, so that students could answer the survey more truthfully.

The questionnaire was made up of three parts: The first part asked for background information regarding the project and the student's level of participation in the project. The second part posed 14 statements relating to course learning, impact of the students' work on the enterprise, quality of teamwork, and civic responsibility. The student indicated the degree to which he agrees or disagrees with each statement, using a 5-point Likert-type scale (i.e., 1 = Strong disagree, 5 = Strongly agree). The third part was made up of open-ended questions concerning the problems encountered by the student while undertaking the project, the means by which the problems were resolved, and suggestions on how to improve the project for the future. Students answered the questionnaire in class. (See Attachment 1 for sample questionnaire.)

The mean score, standard deviation, and Cronbach's alpha of the responses related to questions concerning a particular service-learning outcome was

computed. The student's level of participation in the service-learning activity was also quantified, using a variety of indicators. The mean scores of the four service-learning outcomes and level of participation were then correlated to determine their relationships. Finally, problems raised by students were classified and tabulated to determine the nature of the more common problems.

Survey Results and Discussion

A total of 189 students answered the questionnaire but only the responses from 187 students were used in the analysis after screening for data completeness. In terms of the student's level of participation in the project, this was measured by computing the mean of three indicators: (a) If the group which the respondent belonged to was able to submit the third deliverable [yes = 1, no = 2]; (b) If the group/respondent was able to explain the accounting process as well as turn over the project documents to the business owner [yes = 1, no = 2]; and (c) the self-reported level of involvement of the respondent (very involved= 1, moderately involved = 2, not so involved=3). The higher the mean, the lower is the level of participation.

Table 1.

Level of Participation

Level of Participation Mean Scores	Number of Respondents	Percent Distribution
1.00	64	34.2%
1.33	61	32.6%
1.67	44	23.5%
2.00	18	9.6%
Total	187	100.0%

Almost 67% of the respondents attained a mean score of 1.33 or less, which shows a relatively high level of participation in the project (Table 1). Surreptitiously, a powerful typhoon (International codename was "Ketsana") poured more than a month's worth of rain within 6 hours and flooded wide areas in Metro Manila during September 2009. This provided an opportunity to examine the effect of the level of participation on the students' achievement of the project's service-learning goals. During the 12th week of the semester, in the face of calamity, the university where the students were enrolled decreed that all academic requirements due after classes resumed from a one-week break were optional. As a result, about a third of the groups were not able to submit their third deliverable and/or were not able to explain the accounting process to the business owner. In many cases, their microenterprise was adversely affected by the flood, and thus could not continue to cooperate with them on the project. For self-reported level of participation, 53% claimed that they were "very involved", 43% claimed that they were "moderately involved", while 4% claimed that they were "not so involved."

Table 2 shows the means and standard deviation of the responses for each service-learning goal. The statements relating to the four goals of service-learning were subjected to the Cronbach's alpha reliability test, and the results generally indicated high internal consistency among the responses.

Table 2.

Survey Results

Service-learning Goals	Cronbach's alpha	Mean	Standard Deviation
1. Course learning	0.83	4.01	0.66
2. Impact of the students' work on the enterprise	0.88	3.47	0.76
3. Quality of teamwork	0.76	4.13	0.83
4. Civic responsibility	0.64	3.69	0.61

The goal which scored the highest mean was "quality of teamwork" (mean = 4.13), followed closely by "course learning" (mean = 4.01). This indicates that on average, students "agreed" with the statements related to the achievement of these goals. The exposure of the students to the business transactions of the microenterprises, and their setting up an accounting system for it, did help the students gain a deeper understanding of financial accounting. About 61% of the respondents scored the "course learning" goal at 4.0 or higher.

The goal with third highest mean score was "civic responsibility" (mean = 3.69). This goal is probably a bit difficult to measure, since it connotes the willingness of the student to engage with the more needy members of his community, and help them find ways to meet their needs. It also implies a bit of the "reciprocity" or "mutuality" often mentioned in service-learning articles - the student provides the service with the humble understanding that the community is allowing itself to be helped and that he can benefit from the community as much as the community is benefiting from him. Perhaps the most telling evidence that students have imbibed civic responsibility is shown by this statement which attained the highest mean score among the four in this category - "I look forward to being involved in similar projects which deepen the course learning objectives while helping others at the same time." Almost 73% of the respondents agreed or strongly agreed with it.

The "impact of the students' work on the enterprise" goal scored the lowest mean (mean = 3.47) although students agreed that their impact was more positive than negative. This construct was based on four statements - three of which concerned the ability of the owner to better understand the financial condition of the business through the information generated from the accounting system - while a fourth asked for the likelihood of the owner to adapt the accounting system set up by the students. Note that this service-learning outcome, although associated with client impact, is really more an indication of the level of social self-efficacy of the students since the degree of client impact was not validated independently (i.e., owners of the microenterprises were not asked by the researcher if they found the accounting system useful). The questionnaire asked students to assess if their work made a positive contribution to the micro-enterprise. Even with their limited coursework on financial accounting, the students as a whole felt that they have been able to implement something that is useful to a microenterprise.

Table 3.

Correlations Among Variables

		Participation	Learning	Ent_Impact	Teamwork	Civic_Resp
Participation	Pearson Correlation	1.000	-0.343**	-0.373**	-0.283**	-0.112
	N		187	187	187	181
Learning	Pearson Correlation		1.000	0.440**	0.553**	0.494**
	N			187	187	181
Ent_Impact	Pearson Correlation			1.000	0.357**	0.350**
	N				187	181
Teamwork	Pearson Correlation				1.000	0.487**
	N					181
Civic_Resp	Pearson Correlation					1.000

** Significant at the 0.01 level (2-tailed)

The correlations among the variables support the findings of other researchers on service-learning (Table 3). The participation variable has a "higher" value when a student has less participation, thus, the negative correlations should be interpreted as higher participation levels. All the other variables increase as the positive outcomes increase. The strongest correlations are between course learning and teamwork (0.553), course learning and civic responsibility (0.494), and teamwork and civic responsibility (0.487).

The correlations show how important it is for students to immerse themselves in the service-learning activity in order to achieve the service-learning goals. The various service-learning goals are also mutually reinforcing. Achievement of one goal helps the attainment of the other goals. Students who feel that the project is helping them understand the course content better by applying them to a real situation will also make them feel better equipped to help the microenterprise. Since this is a group project, it is vital that students be able to establish working arrangements to carry out the project objectives, to the extent that they can rely on their group mates to help them with the technical aspects of the project. Developing a sense of wanting to help disadvantaged groups beyond the accounting service-learning project is probably a personal process, but this can certainly be hastened if other group mates feel the same way and the business owners express gratitude in being helped.

Problems Encountered by Students

The most common problems are related to the choice of the microenterprise to work with. (See problems #1, 2, 5, & 6 of Table 4.) Ideally, a microenterprise which is located near the university, with an owner who is cooperative and who keeps good records of his business would solve most of the students' problems. From a project design standpoint, perhaps more guidelines should be provided to the students as to how to choose the microenterprises to work with. The top problem - business information not recorded or hard to determine - is probably why the microenterprise needs an accounting system to begin with. Most likely, students did not expect the business information to be so disorderly, so incomplete, or so time-consuming to assemble (e.g.,

conducting physical inventory for a convenience store). This can be mitigated by setting students expectations to be more realistic at the start of the project, and for the student to check for some reasonable level of record-keeping on the part of the microenterprise before engaging it.

Table 4.

Top Problems Encountered by Students

Nature of problem	% of total Respondents*
1. Business information not recorded or hard to determine	34%
2. Lack of cooperation from owner or employees	22%
3. Lack of teamwork	19%
4. Difficulty in applying accounting concept	7%
5. Enterprise far from students	6%
6. Hard to get enterprise for project	5%

*Some of the problems described cut across several categories, so they are counted in multiple categories.

The third most mentioned problem (19% of the respondents) - lack of teamwork - is probably not so surprising, notwithstanding the fact that students were allowed to choose their own group mates. When the project is challenging, with students trying to balance multiple responsibilities in school, members of a group may become discouraged and not know how to proceed. To keep the group moving towards its goal, members of the group should be encouraged to find ways to negotiate the workload with each other, to motivate others to cooperate, to trade project tasks, or to simply push others to work harder. Perhaps as part of the service-learning experience, support services can be provided to the students regarding group dynamics, communication and leadership skills, time and stress management, so that they can deal with these teamwork issues better.

Problem #4 deals with the difficulty in applying accounting concepts to the business situation. These situations actually present learning opportunities, and allow students to better understand accounting concepts with all their intentions and limitations.

I try to help students find the answers when they approach me to discuss this type of difficulty rather than give the answer outright. Only 7% of the students identified this as a problem, which means that in most cases, the students were able to figure out the appropriate application on their own.

Conclusion and Future Research

This financial accounting project showed that service-learning can enhance students' learning, teamwork skills, and sense of civic responsibility. Students feel that their work with the microenterprises has improved the owners' understanding of the financial condition of their business. The level of participation by the student influences the service-learning outcomes. All these variables seem to be mutually reinforcing, and it may be difficult to identify which ones are the true dependent variables. The findings of this study support the observations of many researchers of service-learning, especially the presence of bi-directionality of the effect of service-learning outcomes. For instance, Reeb et al. (2010) described

how social self-efficacy produces community benefits which encourage students to be more deeply engaged, and this leads to students feeling more confident about being able to make a difference.

Rama et al. (2000) suggested aligning three types of factors - student characteristics, intended student outcomes, and educational environment - to enhance students' achievement of service-learning outcomes. For this project of setting up accounting systems in microenterprises, student characteristics were matched with intended student outcomes. Although this was an introductory course in financial accounting, students belonged to honors programs, were highly motivated, had well-developed cognitive and problem-solving skills, and were using an accounting textbook that is typically used at the MBA level. The factor that could bear some improvement is the educational environment, which covers service placement characteristics, course characteristics, and quality of reflection. Students' problems related to difficulty in obtaining data for the project, which could be due to physical distance, incomplete/ disorderly record-keeping, or lack of cooperation from the owners, can somewhat be mitigated if the microenterprises were better screened or identified in the first place. This would require the support of an "office for service-learning" that is in touch with potential client organizations and communities such that information-gathering and analysis is done on a regular basis. Students can then choose from a roster of microenterprises which are conveniently located and ready to cooperate. On the other hand, one can argue that the problems that students encountered add to their learning, and can develop qualities such as patience, perseverance, creativity, persuasiveness, and sensitivity towards others. These qualities were not measured as outcomes in this study, but most

groups were able to deliver a reasonably coherent set of financial statements that reflect about one month's operations. This shows that they found solutions to their problems.

As an area for further research, it would be interesting to find out directly from the owners of the microenterprises involved in this project their responses to the questions raised in the "Impact on Enterprise" section of the survey. These owners can also be asked if certain work arrangements can be done to enhance the learning experience of the students, as well as to improve their effectiveness in setting up an accounting system for the enterprise. After all, although these owners are treated as "clients" in the project, they can also be "partners" in the project if they realize how important their role is in educating our college students.

References

Andrews, C. P. (2007). Service learning: Applications and research in business [Electronic version]. *Journal of Education for Business*, *83*(1), 19-26.

Astin, A. W., Vogelgesang, L. J., Ikeda, E. K., & Yee, J. A. (2000). *How service learning affects students*. Los Angeles: UCLA, Higher Education Research Institute.

Campus Compact (2010). Campus Compact website homepage. Retrieved on 18 Jan 2010 from www. compact.org.

Clarke, M. M. (2000). *Evaluating the Community Impact of Service Initiatives: The 3-I Model*.Unpublished doctoral dissertation, Peabody College, Vanderbilt University.

Eyler, J. S. & Giles Jr., D. E. (1999). *Where's the learning in service-learning?* San Francisco, CA: Jossey-Bass Publishers.

Eyler, J. S., Giles Jr., D. E., Stenson, C. M., & Gray, C. J. (2001). *At a glance: What we know about the effects of service-learning on college students, faculty, institutions and communities, 1993-2000* (3 ed.). Washington, DC: Learn and Serve America National Service Learning Clearinghouse. Available from http://servicelearning.org.

Giles Jr., D. E. & Eyler, J. S. (1994). The impact of a college community service laboratory on students' personal, social and cognitive outcomes. *Journal of Adolescence*, *17* (4): 327-339.

Gujarathi, M. R. & McQuade, R. J. (2002). Service-learning in business schools: A case study in an intermediate accounting course. *Journal of Education for Business*, *77*, 144-150.

Morton, K. & Troppe, M. (1996). From the margins to the mainstream: Campus Compact's project on integrating service with academic study. *Journal of Business Ethics*, *15*, 21-32.

Rama, D. V. (1998). Service-learning: An active-learning approach for accounting education. In D.V. Rama & E. Zlotkowski (Eds.), *Learning by Doing: Concepts and models for service-learning in Accounting* (pp.3-28). American Association for Higher Education.

Rama, D. V., Ravenscroft, S. P., Wolcott, S. K., & Zlotkowski, E. (2000). Service-learning outcomes: Guidelines for educators and researchers. *Issues in Accounting Education*, *15*, 657-692.

Reeb, R. N., Folger, S. F., Langsner, S., Ryan, C., Crouse, J. (2010). Self-Efficacy in Service-Learning Community Action Research: Theory, Research, and Practice. *American Journal of Psychology Research.* Retrieved 2 October 2010, from www.Springlink.com.

Wilson, M. N. (2008). Service learning benefits and opportunities for business programs. *Business Education Digest*, XVII May, 54-64.

Zlotkowski, E. (1996). Opportunity for all: linking service-learning and business education. *Journal of Business Ethics*, 15, 5-19.

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Appendix: Part II and III of Questionnaire

Part II. Service-Learning Outcomes

Please indicate the extent to which you agree or disagree with each statement by encircling a number.

A. COURSE LEARNING

	Strongly Disagree			Strongly Agree
1) The project has deepened my understanding of how accounting measures the value of transactions and its effect on a business.	1	2	3	4	5
2) Due to the project, I am able to see how the accounting process records, organizes, and summarizes financial information related to a business.	1	2	3	4	5
3) The project has made me appreciate some of the issues related to recording business transactions.	1	2	3	4	5
4) The project has improved my problem-solving and critical thinking skills.	1	2	3	4	5

B. IMPACT ON ENTERPRISE

5) The owner has a better understanding of the financial condition of his/her business.	1	2	3	4	5
6) The owner has a better understanding of the processes involved in setting up an accounting system for his/her business.	1	2	3	4	5
7) The owner is able to use the information produced by the accounting system to improve his/her business.	1	2	3	4	5
8) The owner is likely to adapt the accounting system set up by my group.	1	2	3	4	5

C. LEARNING FROM EACH OTHER

9) I was able to learn more about accounting by working with my teammates on the project.	1	2	3	4	5
10) I learned how to work better in a group through this project.	1	2	3	4	5

D. CIVIC RESPONSIBILITY

	Strongly Disagree			Strongly Agree
11) The project exposed me to a world very different from the one I am used to.	1	2	3	4	5
12) I was able to learn as much about business processes and the "real world" as I was able to help the owner understand his/her business' financial condition.	1	2	3	4	5
13) With the experience and insights gained from this project, I feel more inclined to help disadvantaged groups.	1	2	3	4	5
14) I look forward to being involved in similar projects which deepen the course learning objectives while helping others at the same time.	1	2	3	4	5

Part III. Problems Encountered

Describe the problems you encountered while undertaking the project. How did you overcome them?

Do you have any comments or suggestions on how to improve the project for the future?