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A Client-Based Assessment Tool for Architectural Technology Service Learning Projects

Abstract

Service learning is a natural fit for the study of architecture[1,2] as the practice of architecture engages communities all over the world in order to solve problems in the built environment. Much of this civic engagement is often directed towards student learning in the form of reflection papers or exit surveys, and the literature on service learning attests to this[2].

There is less that has been written about assessment of community engagement from a client's perspective. In other words, in entering communities with class projects, how do our clients value the experience they have had with our students? Other than the physical projects that we often leave them with (built structures, designs, models), what do these clients value the most above and beyond the architecture that we create? What is truly valuable to them in the student-community relationship?

Answers to these questions can only come from a methodology that is centered around eliciting the answers. This paper therefore explores the process of creating a survey directed at determining an answer to these questions; it looks at the process of development of a survey that assesses the value of these experiences from a client perspective. It explores and analyzes current best practices in these types of surveys and proposes a suitable prototype to be used with service learning projects in the architectural field. It addresses the paucity of this type of research in this area and explores ways to improve student-community learning within architectural technology education.

Introduction

This paper is directed at service learning and in particular service learning assessment within an architectural technology context. Architectural education is

fortunate to be well suited to community work through the nature of what architecture entails: it typically involves a physical creation within a particular setting, and that setting is more than often a community. In an education context this often equates to experiential learning or site-based learning where students work within a community or design a building on a non-fictitious site. This has proven to engage students with community partners or individual clients and has been the standard fare of architectural technology education for many years. It holds value as it is often noted as being a "real" experience as opposed to working on a design project that is not connected with a real client or community partner.

The Architectural Technology Program at Indiana University Purdue University Indianapolis (IUPUI) has recently been actively involved in community and service learning work through an international collaborative known as Global Design Studio. Through this pedagogical model students have had the opportunity to work on projects all over the world and partner with students from other institutions as well as industry professionals. Through the use of reflective activities and assignments the author has been made aware of the value of these experiences for the students. However, little investigation has been carried out as to the value of these experiences to the community or individual clients, especially in a formal manner. The project is often completed, the client says thank you, and little follow up is done that measures customer satisfaction or queries the value of working with students. Why do these clients and communities engage us? Why do they want to work with students? What do they learn in the process? These are examples of questions that are possibly never asked as the semester projects often end too abruptly and as other end-of-term duties call (e.g., grading).

This paper sets out to examine this. It examines the method for creating an effective assessment tool that could be used to measure the effectiveness of a service learning experience based upon a client's perspective. Using existing prototypes it attempts to carve out one that is suited to architectural service learning projects in particular. In short, it searches out and questions an

assessment tool that would have value to the community as well as the academic partner. In doing so, it will focus upon the tools that are of value to the teacher and overall service learning program more than the students and it will also seek out the types of questions and answers that serve the clients' needs.

Literature Review: Service Learning as Pedagogy

Service Learning charts a relatively new avenue in pedagogical research. It has only seen a surge in research activity since the 1990's [3], so it suffers from a shortage of literature steeped in the discipline. Even leaner is the amount of material that addresses client satisfaction or community partner assessment strategies related to service learning projects.

It is best to begin with a clear understanding of this research focus. Service learning is defined by Bringle and Hatcher [4] (p.4) as "course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain a further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility". The first component of this definition is straightforward and easily fits into the typical architectural educational experience noted above. There are few architectural education programs that do not explore the design opportunities that real communities can offer.

The second component of the definition refers to reflective activity that has been a signature statement of Schön [1] that began with his work within *Educating the Reflective Practitioner*. In this seminal book, Schön speaks of the value of post reflection on activity to gain an educational overview of the experiences that can then be fit into one's tool kit of architectural experiences. In summing up his ideas on the state of architectural education, Schön [1] (p.171) supports the notion that research should be focusing on methods of linking research with design:

Creation of a reflective practicum calls for research new to most professional schools: research on the reflection-in action characteristic of component

practitioners, especially in the indeterminate zones of practice, and research on coaching and on learning by doing.

His support in architectural education is clearly focused upon the type of education that service learning is all about and the crux of the pedagogy lies in his notion of "reflection-in action".

As Bringle, Phillips and Hudson [3] (p.6) note: "Reflection activities provide the bridge between the community service activities and the educational content of the course." These can be in the form of essays, discussions (fire-side chats) or presentations. These serve to close the loop on the activity and provide the instructor with a measurement of the success of the activity from a student perspective. Aside from this, Seifer [5] and Furco [6] argue that although service-learning is a form of experiential learning, there are key areas where service-learning departs from traditional models of experiential learning. For example, service-learning has a greater emphasis on reciprocal learning and reflection. It is the intent herein to provide this opportunity for reflection to the clients, so that they have an opportunity to express how the experience has affected them. After all, the project would not have been initiated without them.

There is also a lot to be learned from what the client has to say about the service learning experience. This type of information can affect student reflection on these experiences and should be considered to be a valuable component of the service learning experience and assessment.

Current Prototypes: Community Partner Assessment in the Literature

The Health Profession, given its extensive community involvement, contains a handful of examples of client-based assessment tools that are used in service learning educational contexts. A significant amount of resource material and assessment tools for educators interested in service learning can be found within the Learn and Serve America's National Service-Learning Clearinghouse. Prominent in this arena is Michael Perlin, Professor of Public Health, Southern Connecticut State University (SCSU) [7]. He has developed several surveys that

measure client satisfaction with individual student performance, competencies and responsibilities. More specifically he assesses (p. 60) student "1) relationship with others, 2) communication skills, 3) attitude and initiative, 4) performance, and 5) applications of skills and knowledge as applied to the conduct of assigned activities."

These instruments obviously target student outcomes and measure such items as student dependability, enthusiasm and professionalism. He allows the clients to rate these on a five point scale that ranges from outstanding to poor. Yet this type of feedback serves the student more than it does the client and Perlin's assessment tools (rightly so) are meant to help the institution more than the client. The clients, in these instances, become a third party in the assessment of the students. They are the second or outside educator and assessor that may affect student performance. This project seeks out assessment tools that are less student-centered and more focused upon the client or the community partners.

The Health Profession also provides a valuable prototype for community partner assessment through the work done by Shinnamon, Gelmon and Holland [8]. They focus on the partner rather than the student, and their survey addresses topics that include (p. 2.) "the partner's view on the impact they perceive service-learning has on students, their motivation for participating in service-learning programs, their satisfaction with the roles and responsibilities in the process of teaching service-learning courses, community involvement and the influence of the university-community partnership." All of these are valuable to this study as they speak to the impact of the activity upon the client and provide the teacher with feedback on the success of the overall program rather that the particular personality traits of each student.

However, the survey does not specifically address the architectural field and is based with the health profession. As a consequence, it forms a suitable prototype to model the architectural assessment survey upon, but it does not provide or elicit answers that speak to the creation of a physical object within a community. These items need to be added and addressed.

Shinnamon, Gelmon and Holland's work does address the implementation of the survey, however, and they do bring up some very valid points. They point out that surveys can function as pre or post tests and that the administrators of the tests should be aware of the purpose of the survey. Will it be used to (p.2) "assess change in the community partner's perceptions and attitudes before and after the course, or if they are going to use the tool simply as a way to assess general attitudes of the partners after they have taught the course". The intent in this study is to create a survey that would function as an exit survey. The development of a pre-survey would take place once the exit survey has been piloted and perfected. Generally speaking, assessment strategies that are targeted to the classroom fall under types of testing, such as response tests, essay tests, performance assessments and assessments that rely on direct personal communication with students [9]. The type of assessment typically directed to clients are surveys or exit interviews. These serve to frame the experience for the clients and allow them to reflect on the experience with the student. The aim of this study was to develop a set of questions that could be used in either a survey or a face to face interview so as to provide a versatile assessment tool that could be used in varying situations.

Methodology

The author used three methods to develop a client-based assessment tool and therefore approached the research on a solid, triangulated base that is often recommended for research studies [10]. Multiple research approaches lend to the validity of the results and serve to reinforce or dispute conclusions reached by each method. To begin with, prototypes that were considered to be best practice examples of client-based surveys or community assessment tools were sought, as noted above, that were available in the literature on service learning. These all tended to fall within the medical field as the greater proportion of research on this topic fell within this area. Secondly, the author depended upon expert feedback and interviews acquired through the Center for Service and Learning at IUPUI. This is a coordinating partner with the Office of Professional Development and supports faculty, student and staff who are interested in community-based

activities and research. Finally, the author made use of a unique campus focus group known as the Faculty Fellows. This is an interdisciplinary group of faculty members that are charged with the following initiatives[11]:

- deepen faculty practice on service learning and civic engagement by structuring discussion, planning, feedback, and dissemination of assessment on best practices in service learning, particularly with respect to civic engagement outcomes for students and strengthening campus-community partnerships;

- cultivate faculty leadership for the civic engagement aspect of campus mission by increasing understanding of current service-learning literature, particularly as it relates to best practices in service learning as a pedagogy and as a strategy for civic engagement;

- support faculty development by advancing the scholarship of teaching and learning and documenting teaching and civic engagement in dossiers; and

- increase departmental and campus support for service learning and civic engagement by developing a cadre of master teachers in service learning.

The Faculty Fellows group was used as a sounding board for the development of the survey and provided feedback on its content prior to its use. Some of the faculty members were used to guide the research direction and were also experts in the field of assessment and measurement with respect to service learning and civic engagement.

Survey Development

The work developed by Shinnamon, Gelmon and Holland proved to be the most beneficial template for a new survey as it was one of few that directly addressed the client and tried to elicit questions related to the client rather than questions directed at the student . They divided their survey into six sections: a) personal information b) personal perspective about service learning courses. c) attitude towards community involvement d) personal reflections on service learning

experience e) satisfaction with roles and responsibilities and f) participation process.

As well, recommendations in the literature for good survey designs were followed. For example, the survey is designed to follow Peterson's BRUSO criteria: B= Brief, R= relevant, U= Unambiguous, S=Specific, O = Objective [12](p. 49) and were kept to under 20 words [13](Converse & Presser, 1986). The fundamental structure of the questionnaire was also set up to funnel questions from the more general to the specific as this is one of the most commonly used contemporary questionnaire designs [14]. The questionnaire moved from the introduction, to the substantive section and then ended with a classification section (demographic) that was used to determine each respondent's personal profile. It also included both open ended and closed types of questions in order to provide both qualitative and quantitative data so that the data could be used for multiple research projects.

The personal section was created to probe the client for information that could be used to classify the organization or the individual and that could allow for cross comparisons as the client based increased. The questions, based upon this premise and questions found in other surveys, are as follows:

1. Is this your first experience with service learning design students?

   Yes ☐   No ☐

2. If not, then how many times have you worked with design students?

3. What is your main reason for working with these students?

The next section was modeled to gain an understanding of what the client knew about service learning so that answers to this section could be compared to their reasons for engaging in service learning. It also helps the client to assess the overall quality of the student service that was provided. The term *design student* was used so that the survey could be used for several design based disciplines. Questions 2 through 8 are closed and use a 5 point Likert Scale as follows:

Strongly Disagree ☐   Disagree ☐   Neutral ☐

Agree ☐   Strongly Agree ☐

1. How would you define service learning?

2. Service learning helps prepare design students for their careers.

3. Service learning should be implemented in more courses at the institution.

4. The services that the students would provide were clearly articulated to me.

5. Overall student expertise was sufficient to fulfill the requirements of the service.

6. We benefited from the activities of the service learning students.

7. Participation in this project had economic benefits.

8. Participation in this project had valuable social benefits.

The section that followed focused upon client personal reflections of the experience and contained all closed questions set within the same 5 point Likert scale:

Strongly Disagree ☐   Disagree ☐   Neutral ☐

Agree ☐   Strongly Agree ☐

1. I see myself as a mentor to the students.

2. In general, the benefits of working with service leaning students outweighed any burdens it may have added to the work required to be completed.

3. I anticipate that the relationship developed with this University will continue.

The following questions query the client on roles and responsibilities. They are all closed questions and are set up within a 5 point Likert scale as follows:

Strongly Dissatisfied ☐   Dissatisfied ☐   Neutral ☐

Satisfied ☐   Strongly Satisfied ☐

The questions were laid out as follows:

Please indicate how satisfied you were with your opportunities to have the following roles and responsibilities:

1. Evaluating students

2. Designing curriculum

3. Facilitating student reflection

4. Participation beyond the site

5. Project design

6. Project management

7. Other..please specify

The last section of questions are used to probe the process of participating in the service learning partnership and try to establish the reasons why the client would want to participate in these activities.

What were your reasons for deciding to participate with the institution in this service learning course?

Please indicate all responses that apply and rank them in order of importance (1=most important, 2= next most important). Do not repeat a number.

Wanted to try something new   _____

Positive prior experience with students   _____

Curiosity   _____

Needed additional help   _____

Wanted professional recognition   _____

Wanted to make a connection with the institution   _____

Incentives from the institution   _____

Encouragement from peers   _____

Wanted to influence the training of future designers   _____

Other (please specify)   _____

The following questions query the negative sides of the collaboration and attempt to seek out answers to how the collaboration could be improved:

Based on your experience with this service learning program, what were your most serious concerns about serving as a community partner:

Please indicate all responses that apply and rank them in order of importance (1=most important, 2= next most important). Do not repeat a number.

Time constraints of the academic world   _____

Coordination of the project   _____

Supervision of students   _____

Training/orientating students   _____

Electronic communication access (videoconferencing, email) _____

Time commitment   _____

Trust/confidence in the quality of the student work   _____

Human resources required   _____

Physical resources required   _____

Fiscal resources required   _____

Safety   _____

Legal concerns   _____

Other (please specify)   _____

The following questions try to determine the greatest impact of the project upon the community or individual:

My involvement with the institution and the students on this project has had an impact on the following:

Please indicate all responses that apply and rank them in order of importance (1=most important, 2= next most important). Do not repeat a number.

Saved us money   _____

The students brought new energy   _____

This collaboration raised the public profile of this project   _____

Helped to access other funding agencies   _____

Facilitated networking with other community agencies   _____

Increased my knowledge of design   _____

Other (please specify)   _____

Please add any additional comments below.

_____

Thank you for your participation and commitment to this educational endeavor.

Discussion

This template for a client-based survey of service learning relies heavily upon the formwork set in the medical model designed by Shinnamon, Gelmon and Holland and owes credit to this excellent framework. Modifying it to fit the parameters of design required an understanding of the interplay between clients and the student designers and the varieties of experiences that occur within service learning projects. Much of the work done within the Architectural Technology Program at IUPUI is remote and utilizes sites that are in other states and countries around the world. Thus there is a heavy reliance upon electronic communication and the necessity of respecting variances in timetables and curriculum.

The survey is intended to be thorough and does address several areas of interest to the client. Most important are the questions that examine the client's motivation for getting involved in service learning and how the service learning experience affected them. Knowing the answers to these questions will empower the service learning experience and serve to improve it.

One item of concern in this process is that this survey will not be anonymous. There are not enough clients served in one semester for one to not know the origin of the survey. Thus this method of assessment may be fraught with potential confirmation bias where the client may avoid a truthful answer in order to confirm what the institution wants to hear in order to maintain a respectful relationship with the institution. It is assumed that few community based partners would want to tarnish the reputation of any party involved in the collaboration. Some of these problems may be resolved through the use of pre and post tests and through the continued use of this survey over time, such that the research develops longitudinal validity and reliability.

Implications for Future Research

This project needs to advance into a pilot stage and will be implemented at the end of the Spring 08 semester on existing clients. This will provide for a final revision of the survey before it is used on a widespread basis in the Fall of 2008.

Important in the next stages will be the development of a pre survey that matches this post survey so that comparisons can be made before and after the intervention of the service learning experience. This will serve to round out the research data and to assess change in the community partners' perceptions over time. It would be interesting, as well, to see how the clients' perspectives blend or clash with those of the students and those of the faculty mentors.

Interviews and forums held at the end and beginning of these types of learning experiences may also help to provide an understanding of client service learning experiences. The review of the literature on this subject has revealed that there is little, if anything, published on this specific topic and thus all the more reason to advance this important research topic.

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