Reflecting on Service-Learning in Architecture: Increasing the Academic Relevance of Public Interest Design Projects

For the learning to be truly service-based, however, implies a more formal connection between the pedagogy and the product, where the service component is also a learning experience and not simply a byproduct (Schuman, 2006).[1]

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INTRODUCTION

The typical public interest design studio or community design center is formatted to reflect the structure of professional practice. Most community design centers must run like an architecture firm to function properly due to the use of grant funding. Nevertheless, both forms start where the client brings their needs to the architect and then the architect analyzes the client needs, the site information, building codes, zoning requirements, and budget. From there the architect creates design solutions and meets with the client to critique and refine the design solutions. The major contrast between professional practice and the work of the public interest design studios and community design centers is that the students are the primary designers instead of a licensed architect. This allows for an excellent educational experience for the students that they would otherwise have to wait to experience upon graduation. Additional benefits include exposing students to clients that they may never come into contact with in professional practice, specifically non-profit and/or low-income clients.

The limitation of these experiences is that the students are rarely asked to reflect on how their work on a public interest design project is different from what they are doing in a typical design studio, and more specifically, what they will be doing once they become professional architects. Certain steps have been made to collect data on the experiences of both the students and the clients through post-survey questionnaires that gauge the impact of the studio on all involved parties.[2] While this information is valuable, it typically collects information after the process is over, and not during the project. Additionally, the closed- and open-ended questions can be more leading in how the participants respond and therefore in how information is collected. The remedy to this lack of depth and detail is to embrace the heart of service-learning and how it is structured in other departments on campus, namely the Department of Education.

1

Figure 1: Service-Learning Terminology.

Architecture studios, and even some architecture lecture courses such as history/theory courses, are infamous for teaching students how to reflect on their work as a form of criticism. This is done to help improve design development and teach students the importance of reflection in their future profession. Reflection on design solutions is an integral part of problem solving and critical thinking, elements that make architecture education important and influential. These traits have even begun to be copied in educational models outside of architecture, such as in Master of Business Administration programs.[3, 4] The importance of reflection and the studio-based curriculum model is a good fit for the reflection needed as part of service-learning in architecture education. The addition of reflection on service-learning in public interest design can be an integral part of a more critical course on the significance and impact of public interest design in architecture education.

SERVICE-LEARNING

Schuman notes that there are two principles that make up service-learning. Reflection, as noted earlier, is an important principle because it asks the students to critique the learning experience to see how this can help them develop and evolve the thinking on the project at hand. The second, reciprocity, is to make sure that both the students and the client benefit from the project.[5] Too often universities are seen as taking advantage of a community to explore research ideas. A true service-learning project must make sure that all involved parties either learn or benefit, or both. The majority of architecture programs that include public interest design attempt to honor the reciprocity, but very few, if any, include reflection. The inclusion of reflection first necessitates an understanding of service-learning and related terminology. Faculty and students must be familiar with this terminology to allow a better understanding and implementation of service-learning into architecture education.

Community Service and a University

Our university is a public, land-grant institution committed to a tradition of instilling among its students the ideals of citizenship and service. One of the university's goals, as is that of all higher education institutions, is to consider the ways they educate their students for lives of purpose beyond the academy.[11] Community service has often been used as a means of teaching students about civic responsibility ideally, increasing the likelihood that they will remain civically engaged beyond college.[12] Students attending higher education institutions in the 2000s are more civically engaged than their predecessors.[13] The number of college student volunteers "grew by nearly 600,000 from 2.7 million in 2002 to 3.3 million in 2005".[14] Even more recent, 3.2 million college students dedicated over 307 million hours of service in 2009.[15]

College students participate in a variety of community service activities. This service is beneficial for the volunteers, those they help, and for society at large.[16] [17] College student volunteerism can lead to stronger connections between higher education institutions and their local communities as the local community benefits from the service of the volunteers, and the institution develops better relationships with community agencies.[18] College student volunteers benefit emotionally, professionally, and personally from their experience.[19, 20, 21] Further, researchers have found that community service assists students in understanding civic responsibility, increases leadership skills, a sense of self, and a commitment to social issues.[22, 23, 24, 25]

Combining this community service with education has become an important component in higher education, and in this case, architecture education. This was seen as early as 1996 in Building Community: A New Future for Architecture Education and Practice by Boyer and Mitgang, supported by the Carnegie Foundation for the Advancement of Teaching.[26] Carnegie also created the voluntary classification for Community Engagement, which is defined in Figure 2. Our university is recognized as a community engaged institution and supports community engagement in the architecture program, college, and university.

SERVICE-LEARNING IN ARCHITECTURE EDUCATION

Design Studios vs. Community Design Centers

As noted earlier, both design studios and community design centers are run like professional architectural firms. However, the community design center is much more like a professional firm because it is a full time practice that runs on grants, unlike the design studio. While architecture students spend the majority of their time working on design studio work, they have other educational responsibilities, and therefore are not able to work on a public interest project full time. There are benefits and drawbacks to both options for the implementation of reflection and service-learning in public interest design. The design studio may be more limited in time allotted to the development of a public interest project, but it does not succumb to the pressures of financial efficiency as does the community design center. Design studios are made to allow for the reflection needed in architecture education since they are educating nascent architects who need more time to learn and develop design solutions. A community design center still works with developing architecture students, but in a more structured manner with more supervision and possibly more deliverables required. The addition of the time for service-learning reflection in community design centers may be harder to incorporate and justify, especially to paying clients. However, since reflection is an inherent part of architecture education, both design studios and community design centers can integrate additional reflection to bolster the curriculum and research necessary at a university. Lastly, even though both the public interest design studios and the community design centers work with real clients, the clients must realize that both organizations are first, and foremost a learning institution.[28]

Research into Service-Learning in Architecture and Planning

A literature review shows very limited research into true service-learning in public interest design in architecture, planning, and related disciplines. Older literature, such as "Inside the Service Learning Studio in Urban Design" by Forsyth, Lu, and McGirr begin the discussion of experimenting with an "alternative teaching model" of community service learning in 1999. However, due to the remnants of the "master-apprentice model" of architecture programs in the 1990's this was, in fact, considered an alternative practice at the time. Forsyth, et. al. discuss both the fact that service-learning had recently become popular in higher education and the importance of landscape architecture students learning how to work in a multicultural context.[29] More recently architecture programs have embraced both the multicultural aspects of studio projects, as well as community service. McCleskey and Allison wrote about the importance of collaboration and service-learning in architecture education not long after.[30] However, neither discussed how the projects explored in the articles utilized reflection and reciprocity to truly implement service-learning.

It is an evidence-based documentation of institutional practice to be used in a process of self-assessment and quality improvement. The documentation is reviewed to determine whether the institution qualifies for recognition as a community engaged institution. [27]

2

Figure 2: Carnegie Classification of Community Engagement.

REFERENCES

1. Schuman, A. (2006). Introduction: The Pedagogy of Engagement. From Studio to the Streets: Service-Learning in Planning and Architecture. Sterling, VA: Stylus. 1-15.

2. Kim, J., & Abernethy, J. (2006). Service-Learning as Holistic Inquiry and Community Outreach Studios. From Studio to the Streets: Service-Learning in Planning and Architecture. Sterling, VA: Stylus. 139-153.

3. Pink, D. (2006). A Whole New Mind: Why Right-Brainers Will Rule the Future. New York: Riverhead Books.

4. Zlotkowski, E. (1998). Successful service-learning programs: New models of excellence in higher education. Bolton, MA: Anker Publishing.

5. Schuman, 1-15.

6. Community-Campus Parterships for Health: Promoting Health Equity & Social Justice. (2013) Retrieved from: http://depts.washington.edu/ccph/scholarship.html

7. Center for Service & Learning, IUPUI Indiana University-Purdue University Indianapolis. (2013) Retrieved from: http://csl.iupui.edu/about/5c.asp.

8. National Service-Learning Clearinghouse. (2013). What is Service-Learning? Retrieved from: http://www.servicelearning.org/what-service-learning.

9. National Service-Learning Clearinghouse. (2013). Reflection. Retrieved from: http://www.servicelearning.org/topic/theory-practice/reflection.

Figure 3: Questions for Community Members from Brazley and Brazley.

10. NC State University, Office of Faculty Development. (2012). Definitions. Retrieved from: http://ofd.ncsu.edu/community-engagement/definitions/

11. National Center for Public Policy and Higher Education. (2008). Partnerships for public purposes: Engaging higher education in societal challenges of the 21st century. Retrieved from http://www.highereducation.org/reports/wegner/wegner.pdf

12. Astin, A. W., Sax, L. J., & Avalos, J. (1999). Long-term effects of volunteerism during the undergraduate years. Review of Higher Education, 22(2), 187-202.

13. Corporation for National and Community Service, Office of Research and Policy Development. (2010, June).Volunteering in America 2010: National, state, and city information. Washington, DC.

14. Ibid, 2.

15. Volunteering in America 2010 Fact Sheet. (2010). Retrieved from: http://www.nationalservice.gov/pdf/10_0614_via_2010_fact_sheet_6_10_10.pdf

16. Taylor, R. (2005). Rethinking voluntary work. Sociological Review, 53, 117–35. doi:10.1111/j.1467-954X.2005.00576.x

17. Yarwood, R. (2005). Geography, citizenship and volunteering: Some uses of the higher education active community fund in geography. Journal of Geography in Higher Education, 29(3), 355-368.

18. Heiselt, A. (2011). Service and the city: Impacting first-year students via town and gown. Journal of College and Character, 12(4), 1-8.

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

20. Fletcher, T. D., & Major, D.A. (2004). Medical students' motivations to volunteer: An examination of the nature of gender differences. Sex Roles, 51(1/2), 109-114.

21. Kendrick, J. (1996). Outcomes of service-learning in an introduction to sociology course.Michigan Journal of Community Service Learning, 3, 72-81. Mississippi State University (2012) Vision and mission statements. Retrieved from: http://www.msstate.edu/web/mission.html.

22. Rhoads, R. (1997). Community service and higher learning: Explorations of the caring self. Albany, NY: State University of New York Press.

23. Sax, L. & Astin, A. (1997). The benefits of service: Evidence from undergraduates. Educational Record, 78, 25-32.

24. Vogelgesang, L.J. & Astin, A.W. (2000) Comparing the effects of community service and service-learning. Michigan Journal of Community Service Learning, 7, 25-34.

As service-learning became more prevalent and developed in higher education this also happened in architecture education. Despite the increase in projects engaging the community architecture education still has not added reflection into service-learning projects, but has increased the reciprocity. Hinson discusses the opportunity of the design-build studio in advancing architectural research, but little is discussed as to the service-learning aspects of the DESIGNHabitat program.[31] The expansion of community engagement in architecture education is also notable in the first book about service-learning in architecture. Hardin, et. al. continue the "AAHE and Campus Compact's Series on Service-Learning in the Disciplines" in their book From the Studio to the Streets: Service-Learning in Planning and Architecture. This book hosts a variety of articles organized into two parts, "Designing and Implementing Service-Learning in Architecture and Planning Education" and "Course Narratives."[32]

The "Course Narratives" are descriptions of various projects and are informative as case studies, and several include actual references to reflection. While some of these references are fleeting and vague, others give cursory information on the reflection. Tools used for reflection, the goals of those tools, and how often they were used tend to be the extent of the research shared. There is a prevalence within these case studies of no particular discussion of how reflection was used and what data was gathered from this reflection. Yet nearly all case studies and even the methodologies go into much more depth and detail on how reciprocity is structured. Since service-learning includes both reciprocity and reflection one wonders why reflection tends to be neglected. One exception is "Reflection and Reciprocity in Interdisciplinary Design Service-Learning" by Diaz Moore and Wang.[33] This chapter analyzes the work of the Interdisciplinary Design Institute at Washington State University based on the two key concepts of service-learning: reflection and reciprocity. However, the authors of this article are using these concepts alone, it is not clear that they are asking their students to do the same. Important insights come out of the reflection, especially in the section on "Reflection on Research." Diaz Moore and Wang note that faculty miss an opportunity to gather information from their public interest projects to learn from them. They also end up having less time to implement reflection due to the large amount of time necessary to coordinate the project itself. These are important indicators of why reflection is so important and why not only students must reflect, but also faculty.

The "Designing and Implementing Service-Learning in Architecture and Planning Education" section is more descriptive of methodologies, and also includes mention of reflection. Hoyt (2006) specifically speaks of reflection as being one of the six criterions in the development of the Master of City Planning at MIT. This list of criterions is promising and an important guide to future public interest design studios and community design centers. The limitation is that it is not for architecture education, but instead city planning. Rios notes that centripetal knowledge includes knowledge gained on the benefit of community-based design education to students, but does not specifically note how this knowledge is gained.[35] Rios also argues for a new approach to evaluating community design projects that is not practice based, but instead used participatory action research (PAR). While PAR seems to be a logical evolution of the case study method, which Rios notes was the norm for community design evaluation of the past, it also does not include reflection, and is hard to see how reciprocity is guaranteed. Despite this promising information there is a lack of research and scholarly publications on reflection in public interest design projects.

Brazley and Brazley expand the research further by surveying not only students, but also the community members involved in the project. Their article "What is The Future and Vision of Architecture Education" explores the role of an architectural studio in helping with post-disaster recovery. Data was gathered from the students on the impact of understanding urban design, sustainability, underrepresented communities, and the 'interaction between studio and community.' Comments from community members involved in the project also noted that the student work helped develop vision and strategic recovery planning, as well as ideas on future growth. Yet again, the authors do not discuss reflection on the part of the students to help them digest the impact of the project on the community partners and used only a structured survey, which tends to limit answers of the participants. The comments from the community members were solicited in a more open manner, but were limited to only two questions. These questions are noted in Figure 3.[36]

One has to wonder if the authors educated the community participants on terms such as "service-learning" before they asked these questions, and if the community members were asked to reflect on the impact of the student work over the course of the project. This also brings up the question of whether the faculty were trained in service-learning or merely followed the loose definition of so many previous public interest projects that came before.

A more recent publication on service-learning by Angotti, Doble, and Horrigan Service-Learning in Design and Planning further explores reflection to compliment the further developed reciprocity of public interest design projects.[37] This book is organized into four parts including 1) Beginning to see "The Other", 2) Learning to Reflect and Evaluate, 3) Crossing Borders, and 4) Confronting Academic Boundaries. This is a much needed and welcome evolution on scholarship on service-learning that provides more information on service-learning and how to navigate the academic consequences and opportunities of public interest projects. The book also delves further into the history of public interest design and continues this thread created by the past publications and research. The last part is especially prescient as the landscape of the academe is changing and community engagement is being seen as a legitimate form of teaching, research, and service by many universities, as illustrated by the recent addition of the Carnegie classification on Community Engagement.[38]

HABITAT PROTOTYPE HOUSE
This course was taught once before at the current institution of the author and taught in several other incarnations at the author's previous institution. However, this past semester was the first time that service-learning was officially integrated into the course structure. While community engaged scholarship, community engagement, and community partners were included in all previous iterations of this project both service-learning and reflection were not. The community partner in all projects was the local Habitat for Humanity chapter and the engagement and scholarship included student publications and deliverables of construction drawings to the client, as well as peer-reviewed publications, awards, and grant funding. The reflection and service-learning were, surprisingly, the hardest items to instill in the course. Hoyt also mentions this in the article "A Core Commitment to Service-Learning: Bridging Planning Theory and Practice" where faculty may have been interested in these added educational elements, but needed training to implement them.[39]

1. Discuss what your existing experiences and feelings are for service-learning, whether related to architecture or not. If you do have experience with service-learning related to architecture please discuss those experiences instead of experiences not related to architecture.

2. Discuss why you chose to take this elective course. Did it have anything to do with service-learning in architecture? Did your motives for taking the class change as you began your research on Habitat for Humanity, and more specifically the Starkville Area Habitat for Humanity?

3. Based on the research conducted in class analyzing the basic requirements and needs of Habitat for Humanity homeowners, discuss your feelings on service-learning in architecture and how they may have changed since your last journal entry. Discuss why your feelings have or have not changed. Also discuss what you have learned through the research in class.

4. Now that the class has presented the research and conceptual designs to the homeowners how have your feelings changed now that you can compare the generic information provided on Habitat for Humanity homeowner needs and the feedback you received as part of your presentation? How does this inform your ideas of how to design for the clients of Habitat for Humanity in this project? How does it affect your design choices?

5. Discuss your feelings on sustainability in relation to this project. Do you feel it encourages or discourages service-learning in your education? Why or why not? How does the addition of sustainability affect your feelings on service-learning and what is the impact on non-profit organizations such as Habitat for Humanity?

4

Figure 4: Reflection Questions.

6. Discuss the importance of service-learning to architecture and the importance of architecture to service-learning. How do they help or hurt each other, or do they? How do they influence each other? Should they influence each other?

7. Discuss the importance of materiality to service-learning in architecture. Should inexpensive materials, such as vinyl always be used for these types of projects? Why or why not?

8. As designers and builders we must constantly look out for the best interests of our client, even if they are getting in the way of those interests. How does service-learning in architecture, and working with a non-profit client such as Habitat for Humanity, work with these ethical issues?

9. Many critics of architects, and architecture programs, that work with non-profit programs that provide architecture and construction services (such as Auburn University's Rural Studio program) accuse the designers of experimenting on poor people because they do not have the income to move to another home if they do not like the design that is provided free-of-charge. Discuss whether you agree or disagree with this idea and why you agree or disagree with this idea. Do you see this class as "experimenting" on the Habitat for Humanity clients?

10. Discuss your impressions and feelings of service-learning in architecture now that the semester is coming to a close. How have your ideas and impressions on service-learning in architecture changed? Discuss why, or why not, they have changed. What have you learned over the semester? How will you take this knowledge forward and how will it impact not only your further education but also life as a professional designer or builder?

5

Figure 5: Reflection Questions, continued.

The Data Collection

The course was set up as an elective with the goal of creating a design to be constructed by the client of Habitat for Humanity. The difference in this case was the inclusion of reflective journals, pre- and post-surveys, and class observations by the faculty member in addition to the standard case study, building codes, and zoning research. This information, coupled with a final interview with the Habitat for Humanity homeowners gave a well-rounded look at the impact of service-learning on the architecture and building construction science students.

The reflective journals were given at various times throughout the semester to gauge the progression of student knowledge and ideas. Each reflection had a question directly related to the particular activities of the time to which the students were to respond (Figures 4 and 5). The first reflection was due after the first class when the students had met the homeowner family for the first time. This was also done after the pre-survey to ensure that the students provided information on their perceptions before the class began, and before meeting the family. The remaining reflective journals were spaced out over the semester and there were a total of ten given. At least one reflection was due after each presentation to the homeowners to see how those experiences influenced the students. Additionally, reflections were due the evening before a class and were not to be created during class time so that students had time to reflect on their own, away from their fellow students and the faculty member. The final journal was due at the end of the semester after the final presentation to the homeowners and corresponded with the post-survey. The post-survey asked the same, or similar questions as the pre-survey to distinguish what changes in student perceptions occurred over the semester.

The class observations were part of the responsibility of the author in relation to service-learning. The author conducted a discussion on service-learning in relation to architecture, construction, and the particular project at each class meeting. The students were to use these short discussions to foster their thought development in relation to the reflective journals. After each class the author wrote observations based on both the discussions and things observed, both relating to architecture and service-learning.

One of the students noted in their course evaluations at the end of the semester that,

> "The service-learning was very beneficial but probably the hardest aspect to grasp."

Additionally, the author felt this difficulty as well, especially since she was not an expert on service-learning. These difficulties were despite the fact that the co-author conducted an information session for both the students and the author on the first day of class. However, the most important thing that I learned is that adding service-learning to a course takes time, but it is well worth it. It is harder than you may think to achieve the connection between what you are teaching and service-learning, even though it seems like an obvious connection at first. The in-depth exploration of that connection is what makes the course richer and more beneficial for the students, faculty, and project partner. This shows that even with Hoyt's assertion that faculty need training to properly utilize service-learning, more participation in service-learning activities will benefit all faculty interested in public interest design research.[40] Further research would also

support faculty to better understand how to help their students grasp reflections and their importance to public interest design.

CONCLUSION

Architecture education is on the verge of fully implementing public interest design as a legitimate and academically accepted form of teaching, research, and service. Institutional support for service-learning from not just schools of architecture, but also colleges of design, and their universities is growing.[41] Despite the fact that planning programs have more readily embraced service-learning than architecture programs in the past, the recent shift to growing practice-based learning in architecture education is increasing the opportunities to implement service-learning.[42] Due to this even more legitimacy and data are needed to support the research in these public interest design projects. A better understanding and inclusion of service-learning in architecture education is the key.

Faculty need to be trained in service-learning to gain the knowledge needed to ensure not only reciprocity, but also reflection. Architecture education has the structure inherent to allow for the inclusion of reflection for these project types that can only enrich the experience of our students and the communities served. Once we can show that these projects not only help the communities, university, and faculty, but also our students, we will have solidified public interest architecture as a valid form of teaching, research, and service for architecture education.

25. Wang, W. (2000). Service learning: Is it good for you? Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

26. Boyer, Ernest L., and Lee D. Mitgang. Building Community: A New Future for Architecture Education and Practice : A Special Report. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching, 1996.

27. Carnegie Foundation for the Advancement of Teaching: Community Engagement Classification. (2013) Retrieved from: http://classifications.carnegiefoundation.org/descriptions/community_engagement.php.

28. Rios, M. (2006). Where Do We Go From Here? An Evaluative Framework for Community-Based Design. From Studio to the Streets: Service-Learning in Planning and Architecture. Sterling, VA: Stylus. 47-58.

29. Forsyth, A., Lu, H., & McGirr, P. (1999) Inside the Service Learning Studio in Urban Design. Landscape Journal, Fall 1999,18(2), 166-178.

30. McCleskey, S. E. & Allison, D. (2000). Collaboration for Service Learning in Design Architectural Education. Art Documentation. 19(1), 40-43.

31. Hinson, D. (2006). Design as Research: Learning from Doing in the Design-Build Studio. Journal of Architectural Education. 61(1). 23-26.

32. Hardin, M.C., Eribes, & R., Poster, C. (2006) From the Studio to the Street: Service-Learning in Planning and Architecture. Sterling, VA: Stylus.

33. Diaz Moore, K. & Wang, D. (2006). Reflection and Reciprocity in Interdisciplinary Design Service-Learning. From the Studio to the Street: Service-Learning in Planning and Architecture. Sterling, VA: Stylus. 155-169.

34. Hoyt, L. (2006). A Core Commitment to Service-Learning: Bridging Planning Theory and Practice. From Studio to the Streets: Service-Learning in Planning and Architecture. Sterling, VA: Stylus. 17-31.

35. Rios, 47-58.

36. Brazley, M. & Brazley, M. R. (2011). What is The Future and Vision of Architectural Education. The IUP Journal of Architecture, 3(1), 75-110.

37. Angotti, T., Doble, C., & Horrigan, P. (2011). Service-Learning in Design and Planning. Oakland, CA: New Village Press.

38. Carnegie Foundation for the Advancement of Teaching: Community Engagement Classification. (2013) Retrieved from: http://classifications.carnegiefoundation.org/descriptions/community_engagement.php.

39. Hoyt, 17-31.

40. Ibid.

41. Gaber, S. & Bennett, D. (2006). Institutional Support for Community-Based Architecture and Planning Outreach Scholarship at Auburn University. From the Studio to the Street: Service-Learning in Planning and Architecture. Sterling, VA: Stylus. 33-45.

42. Schuman, 1-15.