2002

Giving Back: Student Architectural Product Research in Service to Practitioners

Jill B. Pable
California State University

Recommended Citation

Pable, Jill B., "Giving Back: Student Architectural Product Research in Service to Practitioners" (2002). *Proceedings of the 18th National Conference on the Beginning Design Student*. 31.
https://pdxscholar.library.pdx.edu/arch_design/31

Giving Back: Student Architectural Product Research in Service to Practitioners

Jill B Pable

California State University

Purpose

It is the nature of the profession that practicing architects and designers are busy people who are faced with keeping abreast of quickly changing construction technologies. Manufacturers of architectural and interior products provide knowledge, but their information is often biased to serve their business objectives. Therefore, impartial information regarding new products is scarce. Students, particularly those new to the field, have the need to develop research skills, become acquainted with materials sources, and develop the ability to critically consider manufacturers' claims. Further, students benefit from interaction with the professionals they seek to emulate. Therefore, an architectural materials service learning project was created that immersed a mixture of beginning and intermediate students in materials topic research and reporting methods. This information was then presented to local design professionals in connection with a professional organization meeting.

The Service Learning Approach

The melding of architectural materials research with the concept of service learning was prompted by the author's investigation of the possible benefits that service learning might provide to beginning and intermediate students. The term service learning has been used to characterize a variety of different experiential education endeavors, such as internship programs, field studies, and community service projects.[1] Under such a definition, service learning has surely long been a vital part of many architectural and design educational programs. However, a narrower definition by the Corporation for National Service further documents the concept as a "method under which students learn and develop through active participation in…thoughtfully organized service experiences that meet actual community needs, that [are] integrated into the students' academic curriculum or provide structured time for [reflection, and] that enhance what is taught in school by extending student learning beyond the classroom and into the community…"[2] This interpretation reinforces the idea that service learning benefits both the provider and the recipient, focusing attention on both parties' needs in an equal fashion. Thus, true service learning might be somewhat different from a traditional internship whereby a student takes away the full advantage of real world experiences and the employer, to a point, must bear the burden of sometimes significant training for a beginning employee.

Upon investigation, service learning was found to have poten-

tially positive benefits within the content area of architectural materials knowledge and research. The longitudinal research of Astin, et al. explored how the student learning experience was enhanced by service learning pedagogies and reveal several effects of interest[3]:

1. Service participation shows significant positive effects for such outcome measures as critical thinking skills, self-efficacy, leadership, and interpersonal skills. Such skills are generally accepted as extremely important within the architecture and design profession and may be particularly lacking in the beginning design student.

2. Benefits associated with course-based service are particularly strong for writing outcomes, an area that was found to be weak in the author's targeted materials course.

3. Service participation appears to have a strong effect on a student's decision to pursue a career in a service field. This effect might reasonably be extended to include the service fields of architecture and design and is timely given the beginning level of the students and their search for a life profession.

4. The quantitative and qualitative results of the longitudinal research suggest that service learning prompts student dialogue. This aspect of service learning was appealing to the author in that the course was large (40 students) and might serve to reduce anonymity through the project's team structure.

Methodology

Student teams randomly composed of beginning and intermediate students were assigned materials research topics including environmental carpet reclamation, new building products, specialty glass, innovations in textiles, issues in inclusion of audio/visual components, and environmental graphics/signage. The project served as a required supplement to a more traditional delivery of content that included architectural envelope construction techniques, textiles, and interior materials specification.

Each team contacted manufacturers and conducted research via interviews, written and digital content, and other sources. Students were instructed to earnestly look beyond marketing claims and seek honest comparisons and assessments of products and processes. Specifically, the following aspects were required research components:

1. How is the product or process used and in what context?

PROS OF CRYPTON:
-Available in a variety of colors (design flexibility)
-Extreme strenth and durability
-Breathability and luxurious texture
-High stain and moisture resistance
-Anti-bacterial protection

CAUTIONS OF USING CRYPTON:
-Some solvents can harm--use of bleach without
total removal will eventually fade fabric

SOURCES: Sold exclusively through distributors
-California distributors--Design Resources
and Momentum Textiles

MIRATEC

WHAT IS MIRATEC?
-A new category of fabric which combines
advances in computer lasers, finishing
sciences, and web forming technology
-Can be made of basically any staple fiber,
natural or synthetic

APPLICATIONS OF MIRATEC:
-Home fashions, commercial, institutional and
industrial applications

PROS OF MIRATEC:
-Can be softened, dyed, printed, textured, coated
and laminated in any way conceivable
-Look, feel, strength, and durability of
traditionally woven or knit textiles
-Large range of lightweight to heavyweight fabrics
-Does not tear, fray, pill or shrink
-Can apply water/stain repellant finishes, flame
resistant finishes, and anti-bacterial finishes

SOURCES:
-Guilford of Maine (a division of Interface, Inc.) –
commercial, wall coverings, upholstery,
and other interior applications
-The Pillow Factory – pillow applications
for commercial use
-Hunter Douglas – window treatments
-WestPoint Stevens – pillows and comforters

ABOUT THE AUTHORS

Jennifer A. Morris   thewfer@aol.com
Jennifer is an Interior Design student interested in
residential, commercial, and historical preservation.
She is a member of the ASID student chapter at
CSUS and has attended the Interior Design Student
Career Forum in San Francisco 2001.
Laura Taheny   ltaheny@yahoo.com
Laura is a Junior Interior Design student at CSUS.
She is primarily interested in residential remodeling
and restoration.
Laura Duke   lunaflaura@aol.com
Laura has created a special major called
Environmental Design by combining interior design
and environmental studies at CSUS. She is interested
in sustainable residential design

REFERENCES

FiberSource: The Manufactured Fiber Industry. 1997-2001.
"Microfibers." American Fiber Manufacturers
Association/Fiber Economics Bureau, Inc. 27 Feb. 2001.
<http://www.fibersource.com>.
FabricLink: The Educational Resource for Fabrics, Apparel, Home
Furnishings, and Care. 1995-2001. "Products for Home and
Commercial Use: Educational Presentations." 27 Feb. 2001.
<http://www.fabriclink.com>.
HiTex, Inc. 2000. "Home Page." 17 Mar. 2001, <http://
cryptonfabric.com>.
Polymer Group Inc. "Home Page." 27 Feb. 2001. <http://
www.polymergroupinc.com>.
Smith, Ph.D. Joyce A. "Microfibers: Functional Beauty" and
"Lyocell: One Fiber, Many Faces." Ohio State University
Extension Fact Sheet. 27 Feb. 2001. <http://
www.ohioline.ag.ohio-state.edu>.
Sterling Fibers, Inc. 1999. "Home Page." 27 Feb. 2001. <http://
www.sterlingfibers.com>.
Tencel Inc. "Home Page." 17 Mar. 2001. <http://www.tencel.com>.
(cover photo courtesy of S. Harris--from bookmark)

*This reference is a component of the
Department of Design's Materials and Methods
curriculum as a community service learning project.*

CSU SACRAMENTO
DEPARTMENT OF DESIGN
SCHOOL OF THE ARTS
6000 J STREET
SACRAMENTO, CA 95819-6137
916-278-3962

TEXTILES

FOR THE TWENTY-FIRST CENTURY

Department of Design
California State University,
Sacramento

Interior
Construction
Information
Fest 2001

*INNOVATIONS
IN
FIBERS
&
FABRICS
FOR
INTERIORS*

*An Informational Flyer
produced by Jennifer A. Morris,
Laura Taheny & Laura Duke
Spring 2001*

Fig. 1. Student brochure.

2. What are advantages to specifying this product or process?

3. What are cautions and/or disadvantages to its use?

4. List at least three suppliers or manufacturers of this or like products.

5. Explain and visually illustrate how the products or construction processes are applied, created or installed.

Content was reviewed by the instructor and the University counsel for copyright issues and accuracy. The teams then created three-panel printed brochures, digital Powerpoint presentations (after instruction in how to use the software), and table poster/sample displays that explained their research.

To invoke a sense of professionalism in the event, a $1000 service learning grant provided by the University provided the means to create and mail professional quality invitations, designed by a department graphics design student, announcing the event to local design and architectural firms (see Figure 3). The balance of the funds were used for a student assistant's services, professional printing of the students' brochures, and light hors d'oeuvres for the event.
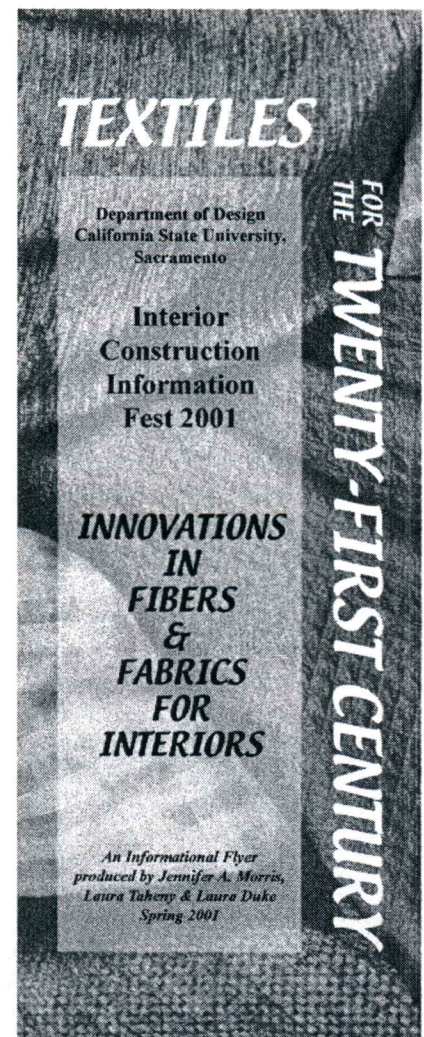
Summary of Results

Partnering with the regional IIDA (International Interior Design Association) professional design chapter, the "Information Festival 2001" evening event was held in which professionals browsed the students' table displays and became acquainted with the product information through the digital

Fig. 2. Student Powerpoint presentation.

ADA Minimum Requirements

• Written description placed below symbol
• Character and background non-glare finish
• Character high contrast with background

Photo courtesy of A.R.K Ramos Mfg Co. Inc.

Fig. 3. "Information Fest 2001" invitation to professionals.

presentations and brochures (see Figure 4). Many students went beyond the project's requirements and included videos, distributed numerous samples, and performed demonstrations during the event for attendees.

As the occasion was sponsored in part by IIDA, three manufacturers of construction products were also solicited by the professional organization for supporting funds and displayed their products at the event.

Attendees also voted, choosing superlatives for the event in the categories of most informative presentation, most innovative presentation, best Powerpoint presentation, brochure and tabletop display, and best presentation overall. Certificates of achievement were awarded to the winning students during a later class meeting.

Retrospective Assessment of the Project

The Team Approach. The student team mixes of beginning with intermediate students provided multiple points of view and a chance to work in a partnership effort towards a common end, pooling resources and maximizing individual skills. Overall, the team structure was effective and likely provided students a taste of inter-reliance they will witness in their professional work. A pervasive problem was the fractured graphic appearance of the groups' brochures, Powerpoint presenta-

Fig. 4. Student display including digital Powerpoint presentation, video, tabletop information board and demonstration samples.

tions and tabletop displays. Early drafts of the three components caught most inconsistencies and this was largey resolved. As is common with team projects, some members were concerned regarding the lack of even workload within their groups. The author found that assessing 10% of an individual's project final grade via anonymous team member rating was an effective method of reminding students that participation should be equally shared (see grading template below).

Critical Thinking. Student comparisons of procedures offered opportunities to assess manufacturer's claims and make personal judgments regarding their worth. One dilemma that arose was the eagerness with which some manufacturers wished to partner with the students, thus potentially placing the students in an obligatory position. This was particularly in evidence if the manufacturer was in attendance at the event. In most cases, this dilemma was dealt with by objectively presenting the various manufacturers' information and allowing the students' verbal discussions with attendees to reach discriminating conclusions.

Writing Outcomes. Students were required to submit several drafts of the required brochures, thus affording the author the opportunity to correct grammar, spelling and layout issues prior to professional printing. This procedure was coupled with rather direct reminders to students of the perceptual consequences of a professional through their writing as well as implications for their grade. Frankly speaking, a considerable quality difference from the first draft to the printed version was evidenced. As many of the students had never designed a three-panel brochure previously, outcomes were on the whole better than anticipated.

Digital Presentations. Similar to their inexperience with desktop publishing, most students had never created a Powerpoint presentation previous to this assignment. This necessitated several computer lab sessions as a way of introduction and discussions regarding information chunking/segmentation and consistent screen design. Students particularly remarked that they were pleased to have learned this skill.

Student Self-Esteem and Self-Efficacy. It was anecdotally observed that the students were viewed as a source of authoritative information in the eyes of attending professionals at the event. To a reasonable degree, students perceived that their information was of high value to many of those in attendance, judging from student-professional dialogues that were witnessed. This role switch may have increased the students' sense of self-worth and realization that their contribution, even in their beginning stages, is indeed valuable. Prospective hiring architectural and interior design firms in attendance appreciated an opportunity to network and review the students' skills. Other introductory level students were also invited and witnessed the importance of research as well as the crucial nature of objective information in service to successful design solutions.

Grading Template for Assessment of Equal Student Team Participation

INFORMATION FESTIVAL 2001

Student Team Self-Evaluation

Please complete the following regarding your opinion of the team's ability to share work on the assigned topic. Your answers will be held in my confidence and influence 10% of each individual's grade.

Your   name:
_____

Your project responsibility:

Brochure   Powerpoint   Table
display

Rate your own performance on the project from 1 (poor) to 5 (outstanding)

1   2   3   4   5

Rating:

Your Project Partners

Reflect on your partners' contribution to the project. Rate their performance from 1 (poor) to 5 (outstanding)

1   2   3   4   5

Partner name: _____
Rating:

Explain/justify your rating here:

1   2   3   4   5

Partner name: _____
Rating:

Explain/justify your rating here:

1   2   3   4   5

Partner name: _____
Rating:

Explain/justify your rating here:

Notes

1   Andrew Furco, Partial List of Experiential Learning Terms and Their Definitions. Raleigh, NC: National Society for Experiential Education, 1994.

2   Corporation for National and Community Service, National and Community Service Act of 1990.

3   Alexander W. Astin, et al., How Service Learning Affects Students (Los Angeles: University of California, Los Angeles, 2000)

References

Astin, W.A., Vogelgesang, L., Ikeda, E, and Yee, J. How Service Learning Affects Students. Los Angeles: Higher Education Research Institute, University of California, Los Angeles, 2000.

Corporation for National and Community Service. National and Community Service Act of 1990.

Furco, Andrew. Partial List of Experiential Learning Terms and Their Definitions. Raleigh, NC: National Society for Experiential Education, 1994.

Gelmon, S., et. al. Assessing Service-Learning and Civic Engagement. Providence, RI: Campus Compact, 2001.