How Temporary Space Can Create Permanent Knowledge: "The Shrink Happening"

Tell me and I forget. Teach me and I remember. Involve me and I learn. [Chinese proverb]

By Jeffrey Haase, The Ohio State University

Introduction

20 students; 1 instructor; 12,722 ft2 (1182m2) of industrial shrink wrap plastic, 3,156 feet (962m) of rope; 5 days and one question, "What kind of space can we design and make using a material we know nothing about?" The Shrink Happening was a workshop where 20 Interior Architecture students from Hochschule Rhein Main (HSRM) and Professor Jeffrey Haase from The Ohio State University asked that question. This paper documents the event, by explaining the processes, structure and results of an intense, large scale, one week "happening."

The problem statement

Traditional academic Architecture and Design studio pedagogy can be traced back to the ateliers of the nineteenth century French Ecoles des Beaus Arts and later in the twentieth century in the German Bauhaus workshops. These historical movements have shaped the contemporary academic studio structure to be 'active sites where students are engaged intellectually and socially, shifting between analytic, synthetic, and evaluative modes of thinking in different sets of activities, (drawing, conversing, model-making)' (Dutton 1987). While studio education has its roots in the master-apprentice traditions of the medieval craft guilds, much of the physical process of "doing", and in turn, "learning" from the process of real world integration has been lost. The result of this disconnect has led to a substantial gap in the Architectural and Design education process. Typical Academic Design studios (hereto referred to as Conventional Studios) provide limited views into the realities of the profession. Ideas begin on paper and end on paper, never leaving the comforts of theory.

This dichotomy occurs because the tools of the trade utilize two-dimensional explanations about three-dimensional spaces, typically comprised of drawings in the form of plans, elevations and perspectives. In addition, there is a dynamic difference in scale that exists between these tools and the environments they represent. Exploring a design at one-fiftieth to one-hundredth the actual size, on either paper or in a small 3D model, does not address issues of scale, gravity, construction/ fabrication methods and connections, or materiality, all of which is the reality of a built environment. Thus, design educators tend to teach representational techniques without teaching a clear understanding of what they represent. This gap in education creates a gap in the profession. The problem was recognized in a national survey conducted by the International Interior Design Association (IIDA) and E lab . The survey concluded that, 'Recent studies have shown that clients trust construction managers and contractors before Architects when it comes to the "realization" of ideas. Their trust for Interior Designers falls below Architects. In fact, they don't trust Interior Designers at all for details of interior construction or budgeting' (E lab, IIDA Foundation Report 2002). To better prepare students for their careers, educators need to expand the Conventional Studio experience by adding alternative studio components to the curriculum that will expose students to more "realities" of the profession.

The workshop described below is based on the principles of experiential learning theory, derived from the early research of Dewey et al. and defined by Kolb as, 'the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience.' (Kolb 1984) Expanding on Kolb, in 2000 Andresen et al. provided a list of criteria for experience-based learning. The authors state that for a project to be truly experiential, the following attributes are necessary in some combination:

1 The goal of experience-based learning involves something personally significant or meaningful to the students.
2 Students should be personally engaged.
3 Reflective thought and opportunities for students to write or discuss their experiences should be ongoing throughout the process.
4 The whole person is involved, meaning not just their intellect but also their senses, their feelings and their personalities.
5 Students should be recognized for prior learning they bring into the process. Teachers need to establish a sense of trust, respect, openness, and concern for the well-being of the students.

The solution

Conducting a curricular activity that requires interior design students to distance themselves from the traditional representation study of a typical studio setting and undertake the risk of idea exploration at full scale. Gravity, material limits, cost restraints, project marketing, labor schedules, political conditions and tight timelines are all part of a designer's concern during a project and need to be included in the curricular environment. The workshop covered these pertinent areas in addition to the experience-based learning attributes listed above. It was structured to maximize the student's ability to work in teams, have an individual stake in the design decisions, take design risks and publish the entire process in real time via social media.

The Process

To follow is a day-by-day account of the workshop activities and agenda. Please review the daily videos that were produced by the students that are linked in the reference section below.
Day 1
09:00-11:00
Introductions
Presentation of attendees, materials and timeframe.
Short presentation showing inspirational images of large and small-scale “fabric” structures.
Addressing the importance of teamwork and how to ‘think big, act big and work big!’
Day one tasks were defined and identified for the four teams.

11:00-12:00
Team Designation
Students decided which team they wanted to start with based on relationships, skillsets and interests. The students understood this was a one-day obligation and they would be involved in all activities before the week’s end.

13:00-18:00
Team Work
Team 1 Model & Site Team
Was responsible for finding a suitable site, measuring and photographing that site and building a site model by the end of the day.
Team 2 Material Exploration Team
Was responsible for exploring and working with the materials. They cataloged and identified the materials limits and possibilities. An amount of shrink-wrap material was set aside for this team to use and experiment with.
Team 3 Design Strategies Team
Was responsible for identifying the use of the space by surveying the school faculty, students and administration.
Team 4 Documentation Team
Was responsible for developing a ‘real-time’ communication plan about the story of the workshop to an international audience using social media. This team created their own goals, storyboard and designed projects separate, but parallel to the other teams.

18:00-19:00
Progress Report
Each team reported their Day One progress.

Model & Site Team identified three sites and informed the class that they were all rejected by the administration. The university was hesitant to have interior architecture students construct a temporary shelter on campus property due to code and safety issues along with their perceived trust described by E lab above. They solved the political issue with the assistance of Professor Haase and Professor Holger Kleine. The administration agreed to allow a structure to be constructed on a site that was not initially selected by the team. A new model and site analysis was necessary. This team was up late the first night building the model. Key Learning: Participation in overcoming the political barriers involved when designing outside the typical classroom center was invaluable. The negotiating necessary to come to an agreement was an important learning moment.

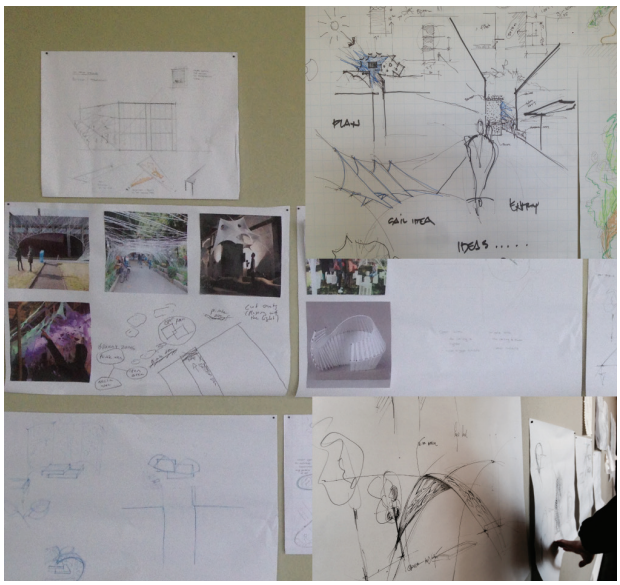
day 1 material exploration

Material Exploration Team presented a small “gallery” of trial and error explorations on the shrink wrap material. They heated it, wove it, created seams in it, painted on it, pleated it, attached it to rope in a series of different ways and structurally tested it. Key Learning: Students involved in open-ended exploration identified the limitations and discovered innovative material possibilities.

Design Strategies Team presented the programming requirements and summarized the use of the structure/ space. They identified it as a celebration and party shelter for the entire student population's celebration of design week. Key Learning: Students reflected on their own experiences, instead of relying on collected data for gap analysis. The students had to create personas and list types of experiences that would satisfy the project goals.

Documentation Team presented the workshop's Facebook page they created and their strategy for sharing the experience. They revealed the name of the project and launched the first video onto our Facebook page. (video: Teaser1Monday) Key Learning: This group created a brand direction for the workshop. This is different than typical projects where the displayed documentation is often produced after the design ideas have been made. In this case the students had to focus on documenting the process rather than the results. It was important for them to create a clear representational message while allowing the physical work to evolve towards completion.

Day 2
09:00-09:45
Individual Space Designing
All the students were given one large piece of paper and were asked to design the space in 45 minutes. They were encouraged to sketch, make lists, identify how the shrink material might be used, establish circulation and approach strategies and identify areas on the site where visitors would gather, sit, circulate and be under cover.



day 2 Design

09:45-11:00
Design Presentation
Each student presented his or her personal design ideas. Discussions, critiques and comments followed each of the presented solutions.

11:00-12:00
Design Direction
A representative was selected from each of the original 4 teams. These 4 representatives were tasked with creating the final design. They presented the design as a sketch model using team 1's site model. This allowed a small group of decision makers to represent and negotiate for the entire class. Presenting the design, as a model required the leaders to think in 3D, adhere to the scale of the site and provide structural strategies. If the team explored the design using only traditional methods of drawing many of these issues could have been overlooked.

12:00-13:00
Final Solution
The team representatives presented their solution and negotiated with the rest of the class until a design was established.

13:00-18:00
Get to Work
The design solution represented the main idea and identified the major project elements. New teams were selected and assigned specific tasks and areas of focus. At this time a draft schedule of events was established so that a sequence of construction would begin to evolve. In addition to the labor and construction schedules a list of materials was created to complete the project. Material costs were estimated and solutions for acquiring the needed supplies were strategized. Because most of the budget was used to acquire the original shrink wrap there was very little money available to obtain other materials. Minor adjustments to the design and some material changes were evaluated against the design ideas until the issues were resolved. It is unusual in Conventional Studio projects to practice cost analysis and budget/design compromise. The Shrink Happening forced the students to balance labor efforts against material options. It meant deciding to obtain less expensive and donated materials in order to adhere to the budget but still maintain quality results.

18:00
Documentation upload
The documentation team uploaded videos onto their The Shrink Happening Facebook page (video: Teaser2aTuesdy, Teaser2bTuesday). Additionally, many pictures and written posts were uploaded throughout the day.

day 3 making at full scale

Day 3
09:00-18:00
Construction Day
Students met and the teams reported on that day's expected activities. Materials needed and construction logistics were discussed and established. The first full day of constructing begins and is the most physically productive day. Large-scale changes occur as the site begins to show the result of student effort.

15:00
Documentation upload
The documentation team uploads videos onto our Facebook page (video: Teaser3aWednesday, Teaser3bWednesday). Additionally, many pictures and written posts are also uploaded during the day.

Day 4:
09:00-18:00
Construction Day 2
Students meet and the teams report on that day's expected activities. Issues surface from the first day of building and a good portion of the morning is problem solving. The students are working at this large scale for the first time. After a day of large scale making and planning, detailing issues arise and need to be addressed. The students are forced to negotiate, navigate and understand "unchartered waters." Panic can seep in because of the time restrictions and it was the professor's job to keep the atmosphere positive, calm and productive. It is often during this adversity that design students can be at their most creative. It was important for the professor to remind them that compromises can lead to opportunities that would have otherwise been overlooked.

14:00
Documentation upload
The documentation team uploads a video onto our Facebook page (video: Teaser4Thursday). Additionally many pictures and written posts are also uploaded during the day.

Day 5
09:00-14:00
The Finishing Touch
Students meet and the teams report on the final activities. The teams dissolve and reconstruct fluidly as final needs are assessed and everyone is rushing to help make sure the project gets finished on time.

10:30
Documentation upload
The documentation team uploads a final teaser video onto our Facebook page (video: Teaser5Friday). The video and pictures of the last minute excitement show how cohesive the entire group of students have become during the week.

day 5 the unveiling

14:00
The Unveiling
The project is unveiled to the school and those visitors who traveled to see the project.
The documentation team released the final video (video: TheShrinkHappening) that summarized the project as part of the unveiling of the shrink happening pavilion.
The important goal of the workshop was to make sure the physical making and the digital representation were coordinated and interwoven in such a way that they depended on each other to be successful. Unveiling the video at the same time as the physical opening meant the experience could be shared in real-time with a broader audience.

The Summary

The five attributes for a project to be truly "experiential" as defined earlier by Andresen et al. (2000) were clearly achieved in this workshop.

1 The goal of experience-based learning involves something personally significant or meaningful to the students.
2 Students should be personally engaged.
The students were involved in all of the decision-making and project direction. In addition, there was added pressure as the entire design school was the final critic of the space produced. This created peer pressures that challenged the students to invest their best efforts.
3 Reflective thought and opportunities for students to write or discuss their experiences should be ongoing throughout the process.
4 The whole person is involved, meaning not just their intellect but also their senses, their feelings and their personalities.
The documentation team activities and daily discussions ensured, despite the pace of the project, that students were able to reflect on their experiences as the project progressed. This project was both mentally and physically challenging to the students involved. It challenged their individual personalities by involving each student in dynamic group related activities. The pressure of the project's time schedule kept everyone excited and nervous at the same time.
5 Students should be recognized for prior learning they bring into the process. Teachers need to establish a sense of trust, respect, openness, and concern for the well-being of the students.

Finally, the students were trusted to make the majority of the decisions for the project. Each student was able to bring their skillset and prior knowledge as well as apply many new skills learned. The entire workshop was transparent. The professor had never worked with the material before which meant everyone was considered a valid explorer in the process. The students often took the role of instructor as they shared their ideas, discoveries and solutions with the others. The respect and confidence acquired by both learning and instructing became a key success to this project.

final conclusions

After reviewing the photos and the videos of The Shrink Happening you will realize the positive energy that was contained in the room, while we all learned so much.
An active, large-scale team based project is a lot of work, coordination, and commitment and above all fun.
I reached out to the participating students a year after the workshop asking them to reflect on the The Shrink Happening experience. Their comments are summarized next.

The over-arching theme from the comments received expressed how unique this type of experience was compared to their Conventional Studio projects. Students identified that they have rarely worked in teams before and this unique experience of dynamic teamwork was a successful learning activity. They were able to work on multiple teams and collaborate, but never felt their own ideas were lost or unheard. This contributed to the work being energetic and positive. It was also expressed that they had never explored material innovation before in this way.

'The Shrink Happening also changed my handling with material. Now, I see more options how to treat materials not just in the usual way. The Shrink Happening showed me how important it is to understand and know the material I use.
In addition they acknowledged that the workshop gave them self-confidence in decision-making.

'This week gave us a lot of self confidence and trust in our quick decisions for following "short-time works" and for material and thinking-experiments for our bigger projects.'
A few of the students from the documentation team have continued to use video as a way to express their work, realizing that this medium allows them to present the experience of a project better than traditional drawings and models.

'Especially the documentation (video) aspect is something we put a lot of emphasis into now that we experienced the team workshop.'
Many expressed the desire to have more experiences like this in their future education. I have been able to work in this way a number of times now and find it to be extremely rewarding as a professor. "Making" at a large scale is challenging and satisfying in many ways. It's clear that the students share in this knowledge and have remained close and connected because of their experience with The Shrink Happening.

Online Videos and Pictures:
https://design.osu.edu/news/shrink-happening

The above link was created as a synopsis of the workshop. The video link below the images play all the videos in there proper sequence.

https://www.facebook.com/search/top/?q=the%20shrink%20happening

The above link is our facebook page. Facebook reloads links, videos and images based on use and sharing. The images and videos on our facebook page no longer follow the sequence they were originally uploaded.

References

Andresen, Lee, Boud, David, and Cohen, Ruth (2000) Experience-Based Learning, Chapter published in Foley, Griff, Understanding Adult Education and Training, second edition, Allen & Unwin, Sydney pp. 225-239.

Dutton , Thomas (1987) Design and Studio Pedagogy, Journal of Architectural, Education, Vol. 41, no 1 pp.16-25. MIT press, Cambridge, MA. USA

E LAB (2002) Analysis of the needs of practice and Implications for education, pp 13-14. IIDA Foundation report. USA

Kolb, David (1984) Experiential Learning: Experience as the source of learning, development, Prentice-Hall, New Jersy, USA