## Team Directed, Project Based Education: A Case Study of an Entrepreneurial, Trans-Disciplinary, Design Studio Abroad

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This is a report from the trenches. This paper offers a critique of a pilot project undertaken by Art Center College of Design, in Pasadena, California. In the summer of 2005, I (along with 1 other Art Center instructor) accompanied 14 Art Center students to participate in a unique, trans-disciplinary, design and project based "start-up" studio in Copenhagen, Denmark. The 14 design students came from various fields (the trans-disciplinary part), who were challenged to produce a professional project (the design and project based part), with no pre-existing working structure (the start-up studio part). How did this project work? What was its outcome? How did its structure emerge? How did we deal with decision-making, establish common goals, insure progress, and satisfy our client, our school, our students, and ourselves as instructors? And what lessons were learned? This is our story, told in 3 parts, with 15 key points for those attempting similar projects.

#### #1 FIND A GOOD CLIENT

Art Center sought out a partnership with the INDEX: Foundation in Copenhagen, Denmark, after initially being invited to participate in a more limited way in INDEX: 2005. INDEX: 2005 was the inaugural project of the INDEX: Foundation, whose motto is 'Design to Improve Life.' As Denmark's key contribution to the Scandinavian Year of Design, INDEX: 2005 awarded prizes to innovative designs with profound societal effect.

In addition to making the awards—which involved a black tie ceremony in the Copenhagen Town Hall—INDEX: mounted an exhibition of the 100 award nominees; exhibited student design work; and hosted a world Creative Leaders conference.

Our job for INDEX: was to design the entire exhibition and collateral materials (posters, magazine, window installation). We also designed and developed an exhibition of student work that nearly matched the size of the nominee exhibition. We were in effect the INDEX: in-house design team.

As a client, INDEX: could not have been a better fit for us. They were wholly supportive of the educational experience of the students and visited the Art Center campus in the months before the project started to familiarize themselves with the campus culture of the school. The leadership of INDEX: knew that education abroad programs brought with them great challenges in adjustment, lifestyle, and learning outcomes, and supported us in every way possible. They worked collaboratively with the instructors to steer the project toward its goals, and got to know each of the student designers as individuals, bonding the students to their project through interpersonal relationships. Once the students arrived in Copenhagen, INDEX: planned orientation sessions for the students, not just for the project, but also to introduce them to Danish living, i.e. passing on free tickets to various cultural events, and inviting the entire group to summerhouses for a traditional Scandinavian mid-summer gathering.

INDEX: was also a promising client for Art Center to partner due to its international influence. The international profile of the project helped up the ante for the school, its instructors, and its leadership, giving the project a higher profile—and therefore greater pull within the school—that a similar project might not have received otherwise.

## #2 MAKE SURE THE BRIEF IS CHALLENGING

Art Center, through Nik Hafermaas and David Mocarski, chairs of graphic design and environmental design departments, proposed that Art Center students design the exhibition itself, which involved over 60,000 cubic feet of exhibit space, and take on the art direction of an accompanying magazine, design summit, and outdoor promotions.

As INDEX:2005 was the inaugural design competition, exhibition, summit, and student showcase of the INDEX: Foundation, the challenge was great and without precedent. The uncharted nature of the project added a level of risk that energized all involved and set a fast pace that pulled everyone into the work.

# #3 MAKE SURE THE TEACHING TEAM HAS COMPLEMENTARY SKILLSETS

As one of the teachers on the ground in Copenhagen, I can say firsthand that this is of utmost importance. The teaching team becomes a 'project team' of its own and has the potential for its own host of interpersonal, management, and client-related problems. We were lucky in Copenhagen: though my teaching partner, his substitute, and I had never worked together before, we each brought a skill set that added to our collective experience. And we approached our work in a non-hierarchical way so that leadership was shared; we each took a lead at various parts of the project.

In projects such as these, one needs to wear various hats, and they all must be worn to make the project go. Among those hats are:

*The Scout Leader*—watches out for any and all possible obstructions and strategizes ways around them

*The Project Manager*—establishes and maintains workflow, deadlines, and teams

*The Design Coach*—facilitates on-going critique within the design team, helps establish parameters and expectations for design work

*The Client Contact*—the point-person for client relations

*The School Contact*—the point person for relations back to the Mother Ship (Client and School Contact person should be one and the same)

*The Arbitrator*—devises means by which to help make difficult decisions, or makes them him/herself, if necessary. Also steps in for difficult situations amongst teams or between teammates.

#4 CHOOSE APPROPRIATE STUDENTS The process of selecting participants is tricky, as you not only must assess the applicants' professional skill sets and talents that will contribute most to the project, but also attempt to assess temperament, motivation, and work style for a cohesive group.

For this project, Art Center department chairs held a kick-off information meeting at the campus to announce the project and invite applications. The meeting was held outdoors, with no visual aids whatsoever: the project brief and the opportunity to work in Europe on a professional scale project was enough to engage a broad range of students. We developed a questionnaire with the help of an industrial psychologist, which helped us vet the students to the 14 whom we thought could best do the job and work well as a team. Portfolio submissions helped confirm our available design skill sets.

#### **#5 GO INTO UNFAMILIAR TERRITORY**

High-profile clients, distant locations, and outsize design briefs up the ante for all stakeholders and help focus the efforts of all on behalf of the project. The task of re-locating 14 students and two instructors from Pasadena and installing them in housing and working space in Scandinavia was no small part of what solidified our commitment to the project.

## #6 MAKE SURE YOUR SUPPORT MECHANISMS ARE IN PLACE

The one problem with undertaking a project in a faraway place is that, while you are indeed far away from your everyday institutional experience, you are also far-away from your institutional support. It is critical that clear communication be established with those 'at home' for a myriad of reasons, i.e., financial, administrative, and logistical. Our solution was to have one point person at Art Center who could quickly address any issue that came up, and coordinate resources in Pasadena to work with needs in Copenhagen. On the Copenhagen side, INDEX: assigned one of its staff members to serve as our studio support point person. That person started our term with an orientation to the city and stood by us as we moved into our housing, set up our studio, and managed the day to day runnings of our project.

## #7 BUILD THE COMMUNITY EARLY AND CONTINUE BUILDING THROUGHOUT THE PROJECT

Some of the 14 students knew each other before being selected for the project and a few of them had worked together previously, but none had experience with group-work on a team as large as this one. From our first meeting in Pasadena and on through the project we coordinated events, parties, and

gatherings to help us learn each other's personalities and become comfortable working with each other. We did ice-breakers at our first meetings, and before we left California for Denmark, we held a pot-luck and Danish film fest. Once in Copenhagen, every Wednesday afternoon students organized a 'happy hour,' a coordinated field trip to explore the city that we knew mostly by cycling through it on the way to the studio! The students threw a Los Angeles-themed open house half-way into the summer that drew crowds and didn't break up until dawn. The students also went on weekend trips together to Stockholm, Malmo, Berlin, and Amsterdam.

## #8 MAKE THE FIRST PROJECT THE 'STUDIO' ITSELF

Self-determination was the single most important element of our studio, and it was critical in the first few days. Faced with a true 'start up' situation, in a bare room with nothing but tables and chairs, the students had to 'build the studio' from the ground up. To do this, students broke into three teams, one to build a structure for the sharing of information about the project, one to set up the studio physically and get supplies (our studio was nothing but a bare room to start with), and one to determine the working and decisionmaking processes of the studio. Each team presented their conclusion to the group as a whole, which then discussed the proposal. Final conclusions were then posted and they formed a platform from which the studio could start working.

## #9 HAVE THE COMMUNITY DEFINE ITS OWN DESIGN PROBLEM

The power to determine the students' own experience produced a sense of ownership that helped ensure their commitment to the work. Determining the design problem itself was key. INDEX: already had a mission, and it had its own visual identity as well. So what was the task of our group? The first thing the students did was debate a 'communication goal' statement for their work. This communication goal, brainstormed and debated by the entire group, took hours to formulate and helped keep the design from straying too far from the needs of the client. With 14 student designers it was a very handy tool to have as a touchstone, and it needed to come from them to have any validity.

## #10 PROVIDE STRUCTURE

The chaos of any design process is helped by establishing basic structures that the entire group

can come to count on. Our day started at 9 in the morning with a brief meeting to make announcements, review progress, and set team presentation times. Our day's agenda was written on an oversized white board, along with any tasks that needed to be completed that day or week. Other information regarding the studio—cell phone numbers, maps of the area, and in the end, a production schedule were posted on the wall. Whiteboards, large foam core sheets, oversized posterboards, and even dry erase marker on windows were used to make information public and centralize information to prevent mis-communication as much as possible.

We kept distribution of information as physically centralized as possible to reinforce the importance of shared knowledge amongst the group and to further build a sense of community by 'proximity.' In the end, the whiteboards became our studio 'hearths' in our studio 'home'—a place to gather and discuss.

Progress through the summer was marked with debriefing sessions that initiated and concluded various project phases. These meetings—the best one took place during breakfast, in a café, after a field trip for research—were a chance for students to discuss their work more objectively and to think about their project outside of their own context and place it in broader perspectives. It also provided the opportunity to set the tone for the next stages, anticipate the needs of those stages, set goals, and mentally prepare ourselves for the work ahead.

Initially, weekly client presentations by the entire student group assured the students when they were on track and provided reality-checks when they weren't. Later in the project, when team tasks were more specific, frequent client visits to individual project teams had the same effect, and kept team morale high throughout the summer.

#### #11 SHAPE-SHIFT THE TEAMS TO WORK INTERNALLY AND EXTERNALLY

While others advocate keeping working teams intact (Michaelson n.d.), we found that we needed to change teams constantly throughout the design process. While specialty and skill-set were considerations, several times teams traded tasks in order to move a process along. Teams that 'got stuck' passed their work on to other teams, who would pick it up and, with new perspectives, push the work forward. In some cases, the trading of just one team member was helpful.

But how were teams determined in the first place? In the initial brainstorming stages, for inhouse presentations early in the term, teams were determined randomly by counting off. These teams lasted for only a week, by the end of which we had a rough idea of what skill sets we had in the class and a sense of how each individual worked. Then, design teams were handselected by task, and continued to work in these teams until they could move on to other parts of the project. Teams coordinated their designs with other teams through representatives.

## #12 PASS AROUND THE RESPONSIBILITY

I once visited a  $5^{\text{th}}$  grade classroom in Japan where one of the students was given the responsibility of calling the class to order at the start of every lesson. After a raucous lunch in the classroom, one student was charged with getting his classmates seated, quiet, and ready to learn, before the teacher even entered the room! It was a great example of passing around responsibility to build empathy and community.

In our project, one person was selected by the group every week to design the client presentation. This student, dubbed 'the honeybee,' had to buzz from team to team, well into the night and the next morning, to collect work to incorporate into the presentation at 10 a.m. Every week the task was daunting, but the possibility that one could be the next 'honeybee' made the work of the current 'bee' a little less demanding.

#### **#13 SUPPORT THE LEADERS**

In the middle stages of design, when teams needed to coordinate with each other to maintain design consistency and reduce redundancy, team representatives were team 'leaders,' presenting ideas to the group and helping guide their teams according to information given them by other team reps. Leaders did not always have an easy time of it working with their teams, and when these situations became obvious (as they typically would during group presentations) teachers would intervene by meeting with the team to help the process, and by providing internal deadlines for individual members to instill accountability.

#### #14 CELEBRATE THE OUTCOMES

After 14 weeks of working 8-20 hour days, nine of the students and both instructors returned to Art Center to start new terms. The other five students stayed in Copenhagen for another five weeks to assist with installation. After a few weeks, many of us went back to Copenhagen to help with last minute issues and participate in the opening ceremony, which was elaborate and gratifying. Seeing the structures that you had spent all semester creating on your computer screen installed and up in Copenhagen's public squares was rewarding and surprisingly emotional for everyone. The final designs, produced and installed, were like monuments to 14 weeks of non-stop teamwork, and it was wonderful to see them being used, experienced, and enjoyed.

## #15 REFLECT AND MOVE ON

Before the studio disbanded we conducted a brief whiteboard session to brainstorm the methods we used, the goals we achieved, and the various roles all the students played to make the project happen. The complexities of the project and the design, and the administrative and production roles all students played were challenging to summarize. Reflection at the end of the project helped all of us acknowledge our efforts and move on to the next thing.

#### **PROJECT OUTCOMES**

#### Client

All of the student-generated designs were approved by the client and produced.

Interviews conducted with the client at the close of the 14 week long design period were positive and pointed to tangible and intangible benefits of working with the student group. From the documentary INDEX: 2005 dvd:

"Having the students from Art Center has been really amazing...It has been one of the best experiences in creating INDEX: We've been discussing INDEX: and working with thousands of people around the world, but this crew-the teachers, the chairs who came over—have been working in such an amazing way that it really made our year...I think we're getting a lot of energy from this way of working. The easiest way to have done this would have been to put an exhibition designer on the job, and a graphic designer, or two of each of them. Instead, we had 14 students, three amazing teachers and two department chairs. It's of course much more complicated, but we gained so much in energy, design skills, communication and networking. They have been able to support us all the way through, asking questions, coming up with solutions."

Kigge Hvid, Director INDEX: Foundation "Their extreme energy is giving a lot of energy back to us."

Wickie Meier, Growth Manager INDEX: Foundation

"It has been fantastic to work with them, and so many new inputs."

Peter Beck, Technical Director INDEX: Foundation

#### Students

Faculty members observed many positive outcomes within the student group. Several students had never been outside of the United States before, but for all of the students the exposure to another culture was profound. Working and living abroad and interfacing with a different culture through everyday life was in itself an education. From doing laundry to going to the doctor or dentist, the students' increased independence in themselves, and interdependence and trust built amongst other in the group, was significant. As stated by Rob Ball, my fellow instructor: "The students really came up with a way to deal with themselves."

"I learned how to take not only my standpoint but other people's standpoints into account." Dien Nguyen, product design student

"The overall project was stronger because it became not just one person's opinion but a lot." Viginia Sin, graphic design student

In a more direct way, students found the experience educational in ways not found in classes back in Pasadena:

"I honestly learned how to put together a studio. The organizational things..."

Jorge Cruzata, environmental design student

"You come up with a vocabulary of the way people interact and the way people create and how different processes work...Strategy-wise, I think we gained some kind of tolerance for the skill of listening... sounds funny but it's kind of true—it's as if we learned tolerances at an accelerated rate, tolerances that some may never learn...it's so simple but so important for a healthy ego, attitude and career..."

Sara Petersen, environmental design student

## **REFLECTION & RECOMMENDATIONS**

While the Copenhagen project went very smoothly considering our inexperience working in this manner, there are some things I would do differently.

*First*, I would have made more clear the selection criteria during the application process. For example, while it was known by all that the studio would be run on the students' own laptop computers, several students departed for Europe without them. A simple agreement, presented to each student and signed, would have reinforced this requirement and (presumably!) helped us avoid the situation.

*Second*, I would have had the students establish criteria for themselves, and for the work, to form a rubric by which individual performance could be assessed. Trans-disciplinary, team-based projects are difficult to deal with when it comes to grading because the contribution of any individual is difficult to quantify in the project. Additionally, the quality of the work, and the student's growth in the process, are very difficult to discern. However, schools like Art Center require letter grades for each course, and I believe the fairest way to determine them, and the way most beneficial to the growth of each student, is to make the process as transparent as possible.

A good example of this system of transparent assessment may be found in the Visual Communication department at the Herron School of Art at Indiana University at the IUPUI campus. There, teams assess each individual's performance internally, and faculty assess each team's performance, every two weeks in written form. Clearly defined rubrics are used to ensure consistency in evaluation. Students thus learn what they need to improve upon as well as what they are doing well while still engaged in the project (and not just once it's over), and faculty have a consistent and reliable tool to use for final evaluation and 'grading.'

*Third*, I would have planned more periods of reflection during the semester and not reserve all reflection to the end, in order to help the students absorb, appreciate, and better utilize the incredible experience they were having.

## CONCLUSION

The 'mechanics' of team-based learning, as I have just partially listed, were unknown to us at the start of the project. But from the beginning, it was clear

that there needed to be a cohesive idea for how the project would be managed in order for the 14 students to produce quality work in a regular, predictable manner. In our experience, we found the 15 points to be critical to a positive outcome for the students, the faculty, the school, and the client. Additional systems for team member selection, on-going assessment, and continual reflection would be valuable additions, but the basic structure as follows helped shape an overall successful project:

- #1 Find a good client
- #2 Make sure the brief is challenging
- #3 Make sure the teaching team has complementary skillsets
- #4 Choose appropriate students
- #5 Go into unfamiliar territory
- #6 Make sure your support mechanisms are in place
- #7 Build the community early and continue building throughout the project
- #8 Make the first project the 'studio' itself
- #9 Have the community define its own design problem
- #10 Provide structure
- #11 Shape-shift the teams to work internally and externally
- #12 Pass around the responsibility
- #13 Support the leaders
- #14 Celebrate the outcomes
- #15 Reflect and move on

## REFERENCES

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