Blank Slate: Student Participation in Project Definition

Andrew R. Tripp

Fig. 1 Why do this project? Student record of class discussion (7/6/16)

Introduction

One of the most essential learning outcomes of a beginning architecture studio is for students to define, debate, and defend the theoretical premises of a project. He or she must answer to the question: Why...? Nevertheless, in the context of a beginning architecture studio, the amount and intensity of hands-on instruction often overwhelms the degree to which ideas can be articulated, and when ideas become accessory to the fact -- literally, accessories to architectural facture -- there are serious consequences to a student's understanding of our discipline. My initial question is simple: What is the best beginning architecture project to compel a student to take responsibility for cultivating both technical and theoretical knowledge? This question, however, is somewhat deceptive, because it masks a larger opportunity for students to take responsibility for the definition of the project itself.

The recent focus on learning outcomes in studio pedagogy has given considerable freedom to the kind and quality of projects that students undertake, but for the most part this freedom is enjoyed by the instructor who invents the project from his or her best idea. Is this necessary? Is it ethical? By being given a project that is well-defined in advance, aren't students missing the greatest opportunity to cultivate their theoretical knowledge? If we want students to be responsible for the fundamental premises of a project, shouldn't we simply give them the responsibility to create these premises themselves? And shouldn't we do so at the very beginning of their education?

In the narration of two exemplary studios from the School of Architecture (SARC) at Mississippi State University (MSU), this paper proposes a model of architectural education in which the definition of the project is shared between the instructor and the student. While increased student agency is considered an important outcome of higher education, this does not exhaust the significance of this proposal. Sharing the responsibility of project definition is also an opportunity for students to engage the basic premises of our discipline. To do this in an effective way depends on the careful division of the tasks undertaken in the planning of a course. In this paper, these tasks are described as the articulation of virtues, values, outcomes, and vehicles. It is proposed that the articulation of learning vehicles is the responsibility of students, while the articulation of learning outcomes is the responsibility of the instructor. In the movement between the definition of learning outcomes and the indefinition of learning vehicles—between the instructor and the student—the broader virtues and values of the project are engaged and brought into focus.

Example one

The first studio at the MSU School of Architecture to explore the concept of student participation in project definition occurred in

the second semester of the 2016 summer studio program. The summer program offers advanced placement for students with previous university experience. It consists of two compressed semesters of roughly five weeks each, with class meetings scheduled for eight hours a day, five days a week. Given these circumstances, it is rare that a learning experience equal to a full thirty weeks is plausible without some additional invention on the part of the instructor. This invention is anticipated by the school's administration and faculty, and so the summer program lends itself to more experimental approaches. Nevertheless, instructors of the summer program assume that students enter the second semester with a set of basic abilities and experiences, including some experience with the range of learning environments typical in an architecture studio, such as desk crits, lectures, seminars, and reviews. One might also assume a certain level of anticipation and curiosity in the students. In this proposal, student anticipation and curiosity are resources for the instructor.

Prior to the close of the first semester, but after the final review, a roundtable meeting was convened with the students during which I asked what they wanted to work on and why. I introduced myself and described those portions of my past that might affect their future. Along with this came an introduction to those books that held a central importance to my own foundations education, including Itten's *Elements of Color* (1970), Hejduk's *Education of an Architect* (1988), and Raimund Abraham's *Unbuilt* (1996). I explained that, while I would define the learning outcomes and maintain the qualitative and quantitative standards of the School of Architecture, it would be their collective responsibility to invent a project to deliver these outcomes.

Our second roundtable discussion was held on the first day of the semester. We reviewed the policies of the school and the university and then resumed our discussion of possible projects. The students had enjoyed a short break between semesters, but had also been unable to resist pondering what was possible. It was apparent that they shared an interest in making things, which reflected a common moral orientation grounded in the virtue of labor. Regardless of the origin of this orientation, it was evident that whatever project was to come, it must involve full-size manufacture with actual materials and assemblies. This limited the project to things that could be accomplished within the available technical and temporal resources. For homework, students were challenged to identify types of projects that could satisfy the moral orientation they shared.

It is important to note that, concurrent with this discussion, there were also two parallel activities outside the boundaries of student participation. The first was a series of small painting assignments intended to maintain the habits of studio work. These were focused on the practice and theory of color, with an emphasis on chroma and the formal balance of color strength. The second was the planning of a field trip to Dallas and Fort Worth, Texas, which was mostly intended as a visit to the Kimball Art Museum. These items were presented as opportunities for enrichment and were not the core of the curriculum.

At our third roundtable discussion we reviewed the color work and the progress to the field trip planning, and then continued our discussion of their project. One student suggested that creating furniture was consistent with our discussion, and several others nodded in agreement. The students voted and unanimously approved of the idea to create furniture. But while they agreed to the virtue of this proposal, they were unable to discuss it beyond the most cursory intentions. It was clear that more elaborate vocabulary was required, and so I asked them to read a few short essays: Adolf Loos's "Furniture for Sitting" and "The Poor Little Rich Man"; as well as Le Corbusier's "Type-Needs, Type-Furniture" and "The Undertaking of Furniture."

Our fourth roundtable discussion was concerned with the definitions of furniture put forward in the essays by Loos and Le Corbusier. According to Loos, furniture is a matter of decorum in the context of traditional dwelling practices. His most cunning pronouncement is that when Americans sit with their feet resting upon a nearby table they are in fact sitting appropriately because in the context of Fordism decorum dictates that one sit as efficiently as possible. Le Corbusier, on the other hand, ever the Modernist, views furniture as an orthopedic instrument for overcoming the inadequacies of human nature—for him furniture is "equipment" for dwelling.

In the course of this discussion, students sought a common ground and began a misleading argument for the naturalism of the concept of comfort. In response to this I assigned Joseph Rykwert's "The Sitting Position," in which the various concepts of comfort are freed from any apprehension of universality and thereafter returned to their historical circumstances. Rykwert's essay became the basis of a counterpoint and an inquiry regarding the usefulness of theoretical readings. The students were receptive. Their answers were guided by their common interest in making. To the students, the readings gave "some basic principles" and "vocabulary," "access to the symbolic problem of furniture" and "tradition," as well as a basis for

expressing "respect for the richness and quietness of prosaic, everyday experience." Curiously, they also hinted at the reflection of human virtue in manufactured objects, for example, how furniture "suggests the personification of objects, especially in its invitation to use" and how it can be "dignified by use."

It was clear that the students were dangerously close to being swept away by literature and that a return to the work of furniture was necessary. In response, a list of architects who are also known for their furniture was provided (Walter Pichler, Josef Frank, Eileen Gray, Lina Bo Bardi, Gerrit Ritveld, Charles and Ray Eames, Richard Neutra, Alvar Aalto, Ludwig Mies van der Rohe, Marcel Breuer, Vernon Panton, and Eero Saarinen). Each student selected an architect and set about to understand his or her work in preparation for our fifth roundtable. It was at this point that the need for a theme first arose. We agreed that, as students of architecture, our hope for the project was to understand something about the relationship between furnishing and dwelling, and so the purpose of looking at the work of others was to determine the ways they dealt with this relationship.

In my experience as an instructor, I have often been flummoxed by the lack of interest students show in assignments that contend with historical precedents, but in this instance the opposite occurred. I like to think that this is because the task arose largely from their own interests and was grounded in their shared moral sense. At this point, the project remained undefined, but it was presumed that an understanding of historical precedents might elaborate our framework.

At our fifth roundtable students came in possession of three things: a presentation of an historical architect who considered furniture to be an integral part of his or her work; a collection of theoretical musings on the art of furnishing; and most fundamentally, a shared orientation toward a particular virtue. A grasp of these things was necessary for participating in the definition of what would be done, in other words, what the project would entail. Historical, theoretical, and moral components are all necessary components of any project. Instructors are more or less cognizant of these during the invention of a project, but asking students to speak to these ideas after they have been defined *a priori* does not compel their debate so much as their explanation. On the other hand, allowing a learning environment in which there is a demand for students to articulate these ideas at the very least propels students into debate.

This debate took place in front of the blank slate of a chalkboard. Students volunteered to act as secretary and recorded the discussion on the board. I performed as the moderator and sometimes as the translator. The first question posed was "Why do this project?" Even before it was clear what the project would be, it was clear that the students—given the ideas they were debating—would have to come to some agreement about "why?" or "for what reason should this project be undertaken?" The only stipulation was that this reason could not be for the sake of education itself. The first pass at this question created seven more-or-less incoherent responses. (For example, the students proposed: "comprehending furniture to room relationships"; "furnishing defines space"; "human interaction with space"; "satisfying the ideas of the designer and the user"; "creation of spatial harmony"; "object communicates with the space that it exists in"; and "creating versatility with objects and its space.") Nevertheless, these became the fodder of four well-articulated statements of values. The project, the students concluded, would result in a work that values: 1. "the harmony of architecture and furniture"; 2. "the physical definition of typical human needs and desires"; 3. "the flexibility of functions"; and 4. "the assembly of materials." These values were the conclusion of our fifth roundtable, which was the end of the first week. For homework, each student was to explain these values in their own words. It was convenient that this was also the weekend we traveled to Texas.

Our sixth meeting, and our second week, began with the presentation and collection of each student's explanation of the values. We debated and clarified these in discussion, which led rather naturally to the question of what kinds of learning vehicles were appropriate to each.

To create a harmony of architecture and furniture, students proposed that there would need to exist some learning vehicle in which a space, perhaps a pre-existing space, would need to be represented in a scale at which the human figure might negotiate between architecture and furniture. On the side, it was briefly considered to replace the human figure with a study of light as the mediating link, although this was never pursued. To create a physical definition of typical human needs and desires, it was proposed that there might only be so many typical human actions which require furniture, among these were eating, sleeping, sitting, and working. The idea that a study of a typical human action might be required caused contentious debate. Close observation of a specific activity, the students concluded, could never lead toward the definition of truly typical human action. To allow for a flexibility of functions,

it was proposed that one thing should contain two, which meant that a single work might be created that supports two typical human actions. Finally, to demonstrate the assembly of material techniques, it was proposed that there should be a narrow range of materials, perhaps only two from a list of four that included wood, metal, fabric, and concrete, and furthermore, that these should conform to an additive approach.

Thus, in addition to their collection of historical, theoretical, and moral components, the students articulated four primary values as well as the character of the learning vehicles that might be suitable. This was the conclusion of the sixth day, on the basis of which a project for the creation of a work could now be defined. Together, the students generated a project brief, including a calendar and the requirements for deliverables, which I revised for clarity and consistency and then approved for execution.

It is important to note that during the very first roundtable meeting the students were presented with a course syllabus that outlined the important policies of the school and the university as well as listed the typical learning outcomes of the second semester of architecture studio. What was absent from this document was an expression of the more general virtues and values as well as the more specific learning vehicles. The intention of this omission was to employ the latter as a way to engage the former; in other words, to use student participation in the definition of the particular learning vehicles to instigate greater responsibility for the general virtues and values. The risk of retreating from the definition of the project was calculated on the basis that the fundamental premises of a project are rarely shared between instructors and students. Suspending my own agency in the authorship of the project lent to the possibility of greater agency in the students, but it also lent to their greater ability to define, defend, and debate the basic premises of a project. Although this is something that is difficult to empirically demonstrate, there was a resounding chorus of well-articulated premises at the final review, for which the students were asked to give their "idea of dwelling equipment" as a prologue to their presentation. Among the various student proposals, dwelling equipment was defined as: "an instrument that alters the interaction between dwellers by challenging conventional concepts of comfort"; "a representation of the relationship between dwelling and dweller"; "a representation of the earth upon which we rest"; "something that promotes stability and adaptability"; "something that promotes the definition of space"; "not a challenge to—but an extension of human nature"; as well as "an invitation to let dwell—to be at home."

Example two

The second studio to explore the concept of student participation in project definition occurred in the spring semester of the fourth year. For the sake of brevity, I will limit the description of this studio to a more cursory narrative.

In this studio, which occurred over the course of a typical fifteen week semester, the model of daily roundtable discussions was maintained, again beginning from the question: "What do you want to work on, and why?" The spring semester of the fourth year is historically identified as the "comprehensive studio." This fact quickly derailed the discussion into a debate of how to demonstrate "comprehensive knowledge." We were concerned that, while this might describe the virtues and values of a good student, it would likely fall short of prompting a work of architecture. We determined, therefore, that the subject-matter of the studio ought to be a "comprehensive work of architecture." To aid in the definition of this concept, we turned to Gottfried Semper's *Four Elements of Architecture*, which was transformed into the theme of the *Four System-Families of Architecture* in order to accommodate contemporary project delivery. The four "system-families" were identified as levels/foundations, structures/frames, enclosures/walls, and comforts/hearths.

Assuming that the project would represent buildings as a gathering of systems, we was raised the question of what building type, and why? The students expressed interest in museums and libraries, and in a debate over the suitability of each, the virtues of community were articulated and the typology of a library chosen.

At this point we introduced the concept of programming along with seminal texts from this discipline, including William Peña's *Problem Seeking* (2012). Peña introduced the importance of establishing values—statements that allow specific problems to be defined and assessed. With the major virtues and values of the project in hand, there was finally a demand to organize the basic premises of the project. It was a rather natural extension of this discussion to require a program document, which would articulate the curriculum in the context of the elaboration of a building program and the selection of a site. Two groups of twelve students created two building program documents, each approximately thirty pages long.

At the time, it was unclear how the virtues and values collected in these program documents would lead to the definition of specific learning vehicles. This lack of clarity encouraged

invention. We proposed that the program documents be dismembered and remembered into four chapters representative of the four system-families. Each chapter would describe how one of the system-families was responsible for accomplishing a portion of the program. For example, a student may determine that the collection of books was the metaphorical foundation of the library, and so the space planning and programmatic requirements associated with the collection would be assigned to the levels/foundations. Two further possibilities emerged: first, the order of the system-families could indicate a sequence of progressive learning modules; and second, the task of assigning the various responsibilities of the building program to the four system-families could be an effective demonstration of an individual student's appropriation of the group document.

This proposal was challenging and not immediately accepted, but once it was, the consequences were quickly apparent. The most dramatic of these was the circumvention of the sketch plan. The development of each system-family was undertaken from PD to SD to DD independent of the others, which meant that each system-family represented the program document independently. In other words, there was no primary sketch plan to which building components must conform. The absence of the plan, perhaps a future foreshadowed by Building Information Modeling (BIM), was a small cost for the possibility of an integrity of a learning vehicle for each building component and a direct relationship of these vehicles to the major virtues and values of the project.

Authoring suitable learning outcomes

Despite the differences in the attitude and maturity of students, the sequence of development in each studio was identical. In each, the demand to define the specific learning vehicles prompted the debate of the general virtues and values, all the while keeping in mind the learning outcomes that had been established in advance. In this model, considerable pressure is placed on the concept of learning outcomes. The clearer these outcomes are written, the more instructors can allow students to define the appropriate vehicles, and the more students engaged will be in the general virtues and values of our discipline.

Recent scholarship on teaching and learning proposes that student-centered learning, the growing culture of self-assessment, and the focus on learning outcomes are linked by an increasing pressure to demonstrate "continuous improvement" in higher education (Bachman and Bachman).

This pressure is executed by the National Architectural Accrediting Board (NAAB) and by the various higher education regional accrediting commissions (SACS, HLC, etc.), but also by fundamental shifts in educational trends. The model of education proposed herein is complicit with these trends. Learning outcomes play a central role in demonstrating continuous improvement insofar as they denote the specific conditions under which student behavior is measured or assessed. This has created a serious demand for well-articulated learning outcomes in the education of all disciplines, including architecture.

Given this demand, is it possible to simply adopt the NAAB Student Performance Criteria (SPC) as specific learning outcomes? No. The reason for this rejection is simple. NAAB SPC are not written as effective learning outcomes. While the definition of the concept of learning outcomes is debatable—indeed, it often changes based on the scale of its application in courses or programs—it is nonetheless generally agreed that effective learning outcomes contain specific language that describes how student behavior may be performed and assessed. An effective learning outcome will have an action verb that identifies what students should be able to perform, language that denotes the conditions under which students can demonstrate mastery, as well as language that indicates to some degree how this mastery may be evaluated (Hartel and Foegeding). These clarifications are the responsibility of the faculty as a school or as an individual.

Scholars of teaching and learning who advocate learning outcomes as the lodestone of student accomplishment within a curriculum often recommend a return to the descriptive language and action verbs of Benjamin Bloom's taxonomy of learning. The intellectual tradition of Bloom's taxonomy specifically rejects the use of broad descriptors, such as the terms "understanding" or "ability" that begin all of the NAAB SPC. Despite the persistent representation of the SPC as "educational outcomes," they are closer to what are called "competencies"—general statements that describe the desired knowledge and skills of students who graduate from the course or program. Competencies may be conceived as containing several learning outcomes, but this does not make them equivalent to the articulation of virtues, values, or vehicles. While there is some consternation regarding the contemporary relevance of Bloom's taxonomy, or even the application of its cognitive objectives to works of architecture, it is nonetheless a fair staring point for writing effective learning outcomes.

Conclusions

The articulation of virtues prioritizes the ethical orientation of students above all else, but this is something that instructors likely have little control over. This is as it should be. Likewise, the less general values that guide a student's interests and affections remain thankfully beyond our reach. More likely, it is in the movement from the indefinition to the definition of learning vehicles, promoted by suitable learning outcomes as well as patient guidance instruction, that the virtues and values of our students can be let into the work in a sincere way.