

Title: Moving Past “Grading From the Gut”: Defining Meaningful Assessment Criteria in the Design Studio

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Abstract

This paper documents the findings of a recent survey of design educators, providing feedback on the processes and product they value in the design studio. These observations can be utilized to create authentic learning objectives and valid assessment tools in order to increase success and innovation in student projects.

Introduction

“Why did I receive a B when I worked so hard on my design?”

“How did I earn this low grade when I completed all of the drawings required?”

The design studio has been the centerpiece of architectural education for more than a century and a half. The studio – as a place and as a form of pedagogy – is so central to architectural education that most ... don’t even begin to question its authority ... but any architectural educator will admit to the design studio’s shortcoming. It’s often a mysterious business.
(Crosbie, 2007)

The mystery is more than a little one-sided, in particular, when related to communication with students who are generally unaware of the expectations of their professors. It is not surprising that it is difficult to break down the somewhat intangible qualities of inspired processes. After all, a bit of design comes from the heart rather than the head. We are often uncertain why we find a room more inviting to sleep in or prefer a specific area to linger. We just know that something in the design resonates deeply within us.

Accordingly, students in creative fields often find their education frustrating as they attempt to hone their skills and improve their abilities. Heidi Andrade (2000) notes that “we often expect students to just know what makes ... a good drawing ... so we don’t articulate our standards for them. Some students figure (it) out on their own, but others need it written down or otherwise communicated to them.”

Design students have historically received few focused comments that clearly define areas of accomplishment or improvement. Consequently, without specific feedback, they are left to emulate peers who have been deemed successful rather than modify their behaviors based on individualized comments from their instructors.

This lack of relevant feedback has negatively impacted the discipline over time. It is also in direct opposition to current data on the subject that explains that teaching “not only involves imparting information and understandings to students but also involves assessing and evaluating students’ understanding of this information.” (Hattie & Timperley, 2007) If instructors are not providing feedback they are, essentially, completing only one half of the teaching cycle.

Fortunately, current convention is moving towards more authentic assessment methods, both to provide feedback to students, as well as to measure achievement of learning objectives. Universities and accrediting bodies are among those requesting physical evidence of assessment techniques, affording additional rationale to reform previous practices.

Many forms of modern assessment, including rubrics, make use of pre-determined standards against which students are evaluated. “These criteria publically identify the significant dimensions that raters apply to (the work) students generate in response to an assessment method.” (Maki, 2004, p. 121) These are usually directly linked to the learning objectives that have been established for the course or project. In more quantitative classes a method to establish these measures is often evident but how does an instructor evaluate the complex characteristics of an excellent student in architecture or design?

Method

In order to create more relevant criteria in the design studio I sought insight from colleagues and fellow designers and architects, seeking commonalities in our priorities for students.

More than 100 educators at ten universities throughout the United States were polled online in order to determine shared ideal behaviors of design students. These participants were asked to reflect on the following open ended questions:

- How do you define the *specific qualities* of an exceptional student in your field?
- What sets them apart and makes them stand out from their fellow classmates?
- What is different about their process, their development and their end product?

The answers were examined for similarities to determine valid criteria in assessment tools and in turn, better feedback to students.

Findings

Approximately 30 answers were obtained in the survey, enough to establish several patterns. While the questions were primarily answered by educators who teach interior design and architecture many of the commonalities can easily be applied to related fields including: landscape architecture, graphic design, industrial design, fashion design, etc.

The survey revealed that excellent students of design should be able to demonstrate that they are:

- passionate about everything they do

- capable of pushing themselves beyond what they are already good at
- comfortable taking chances and risks
- curious
- capable of creating spaces that address human behaviors
- critical of their own work
- independent workers
- able to demonstrate an investigative process
- able to show growth over the course of a project
- self-motivated
- not afraid to let go of their first idea
- able to carry an idea through two dimensionally and three dimensionally
- refiners and self-editors
- able to look at a problem in many different ways and ask “what if”
- competent applying the basic principles of design (hierarchy, balance, etc.)
- able to create projects that are both aesthetically pleasing and functional

Discussion

The results of the survey revealed many traits concerning the process of students, far outweighing the comments relating to final product. This is in direct contrast to traditional trends in design assessment, where fields like architecture have been likely to focus on product in the studio, rather than process, (*de la Harpe, Peterson, Frankham, Zehner, Neale, Musgrave, & McDermott, 2009*) A recognized problem with this strategy is that when students are focused on product they become preoccupied “planning work to please the teacher.” (Davies, 1996, p 329) Do they truly understand how to solve the problem in a greater context however? Growth is difficult to maintain if the studio culture encourages showmanship over workmanship.

This trend certainly speaks to the frustration of numerous design students who work effectively, and follow the project guidelines, only to be outshone during a final critique by a peer who displays one compelling drawing that intrigues the jury. A shift in creating learning objectives that speak as much about process as well as product can assist in leveling the playing field for students and better preparing them for success in the future.

Assessment that speaks to process is actually more intuitive to many instructors if they consider what they value at the same time they develop the project description - before they are seduced by a provocative drawing or rendering. A well-crafted assessment tool can actually lessen the bias found when assessment is completed only after viewing the final product. These tools can aid in keeping instructors focused on the true goals and objectives of the project. (see fig. 1)

<p>PROCESS: Work ethic, refinement and development throughout project</p> <p>WEIGHT: 20%</p> <p>GRADE FOR PROCESS:</p>	<p>Formative (D/F)</p> <ol style="list-style-type: none"> 1. Students are occasionally too dependent on instructor or others to move the design to the next step 2. Often unprepared for intermediate deadlines 3. Lacks initiative 4. Little research into refinement of working knowledge of design details, codes and standards 5. Students could improve in their ability to represent and communicate design intentions from <i>parti</i> development through design development through technically precise two and three-dimensional documents showing materials and methods of construction. 	<p>Developing (C)</p> <ol style="list-style-type: none"> 1. Students could push their design further independently more often 2. Meets most deadlines in a timely manner 3. Initiative is somewhat inconsistent 4. Could increase understanding & researching detail assemblies, codes & standards 5. Students demonstrate some ability to represent and communicate design intentions from <i>parti</i> development through design development through technically precise two and three-dimensional documents showing materials and methods of construction. 	<p>Accomplished (B)</p> <ol style="list-style-type: none"> 1. Students show occasional risk taking 2. Meets almost all deadlines in a timely manner 3. Average initiative 4. Students reasonably research detail assemblies, codes & standards 5. Students reasonably demonstrate the ability to represent and communicate design intentions from <i>parti</i> development through design development through technically precise two and three-dimensional documents showing materials and methods of construction. 	<p>Exemplary (A)</p> <ol style="list-style-type: none"> 1. Students show a great degree of calculated risk taking that has clearly shaped the design 2. Meets all deadlines and often works ahead 3. Shows consistent initiative 4. Students are self motivated when researching detail assemblies, codes & standards 5. Students clearly demonstrate the ability to represent and communicate design intentions from <i>parti</i> development through design development through technically precise two and three-dimensional documents showing materials and methods of construction.
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(fig. 1: example of the process portion of a rubric used to assess interior design students)

Indeed, the tide is turning and many instructors and programs are realizing the benefit of evaluating more than final product in the design studio.

In fact, Petry argued that "the view that process, person and product are important in studio is reinforced by the shift in 2004 by the accrediting board for architecture programs in the United States to an objectives based approach. In this method students are required to demonstrate that they have learned the required skills as well as the content." (as cited in *de la Harpe, Peterson, Frankham, Zehner, Neale, Musgrave, & McDermott, 2009.*)

In order to define leaning objectives and assessment tools that speak to behavioral processes educators must first delineate goals that clearly express their expectations. These must be determined by a thorough analysis of all that they value in their design students. Rayment, (2007) explained that we must not fear the distinctive nature of our craft but instead, embrace its idiosyncrasies, "celebrating the essential qualities of aesthetic making and the activities which make art and design teaching worthwhile, including the freedom to fail".

Only when authentic goals and objectives are utilized to define assessment criteria will students receive the direction they seek to improve and mature as designers. Only through this process will valid assessment be developed that can advance student learning and shed light on the mysteries of the design studio setting.

Practical implications

Defining Expectations & Goals

Although there exists many opinions and recent research on product vs. process criteria in assessment, it is understood that creative fields must be flexible in their goals as considerations are apt to change from project to project and instructor to instructor. In the end what most matters is consistency - consistency between what is truly valued by the program and the faculty - and creating an assessment tool that reflects these principles.

The task of creating these goals can be challenging for many design instructors however. To make tangible what was previously an intuitive response can be a difficult transition. Fortunately, there are multiple methods that can be utilized to increase the effectiveness of the process.

Many of the qualities of excellent design students (listed above under “Findings”) were behaviors that I had previously noted as being preferred in my own design students. In order to collect these, I reflected on two critical questions “What do I want students to know and be able to do?” and “How will I know when they know it and can do it well?” (Allen & Tanner, 2006, Designing a Rubric, para. 4).

These questions can easily be answered by reviewing similar work that students submitted in the past and identifying the traits that “distinguish exemplary from less successful work ...” (Maki, 2004, p. 126) This process is particularly beneficial in linking commonalities between successful end products.

An instructor can benefit from moving beyond their personal reflections as well. A primary method to do so is to create working groups to develop the standards of quality (Maki, 2004, p. 124). This requires gathering or polling likeminded individuals who teach similar courses and/or share common visions. This was the method used in the survey in this study. When several of the qualities collected matched what I had previously noted, validity was further added to the criteria. In addition, several that were not previously on my list emerged, which will provide a useful “criteria bank” to draw upon as I prioritize my goals for future projects.

An additional step in the process would be to examine “emerging work in professional and disciplinary organizations focused on establishing criteria and standards for judgment” (Maki, 2004, p. 127). Looking to existing work on assessment can be beneficial but if specific examples related to the instructor’s discipline are available, they may be even more advantageous.

The criteria that were gathered in the survey, for example, reinforce recent findings by Lindstrom (2006). Process criteria he defined included: “investigative work; inventiveness; ability to use models (to emulate); capacity for self-assessment; and overall judgment (including working independently).” The correlation between what was collected in the survey to recent literature on the subject provided further evidence that the information I was compiling was sound.

Creating Learning Objectives and Assessment Criteria:

Once goals are created, these can be used to develop learning objectives. A sampling of process driven objectives that might be created from the results of the survey are shown here.

Students will . . .

- refine their design throughout the project, providing multiple editions generated through continual self-evaluation, reflection and calculated risk taking.
- produce solutions that are both functional and aesthetically compelling in both two and three dimensions.
- illustrate curiosity through research of design precedents, code issues and an examination of potential detailing solutions

After learning objectives are established they should be included on project descriptions and syllabuses. Sharing your expectations with students will result in a positive effect on the behaviors and product in your studio.

Simultaneously, you (or your group) need to determine the format the assessment will take. Is the assessment formative (intermediate) or summative (final)? Will it be graded? Who will be filling it out? Consider the multitude of formats at your disposal: rubrics, slide scales, etc.

Once you determine the format use the list of learning objectives to formulate criteria. (fig. 2) It is vital to be thorough in your expectations. Vague feedback using catchall phrases like “process” or “design” alone is almost as frustrating for a student as no feedback at all.

Process
<ul style="list-style-type: none">• always prepared for desk critiques and intermediate deadlines• positive attitude• student works independently• takes calculated risks and shows curiosity• self-critical, self-editor and refiner• pushes beyond what he/she is already good at• researches precedents, codes and technical guidelines to inform decisions

(fig. 2: example of process criteria to be used in a rubric)

Once your assessment format has been completed it is essential that it be shared with the students, ideally distributed with the assignment handout. This reduces misinterpretation of the goals for the project and allows students insight into what the instructor values.

As a word of caution, realize that no matter how careful you are with the creation of your assessment formats you may quickly realize that perhaps some of your criteria are not specific enough or perhaps not all are as relevant as you first thought. Don't feel as though you have failed however. Instead realize that reassessing the effectiveness of your methods is a healthy part of the process.

Assessment that leads to meaningful feedback in qualitative fields is not easy. It takes tenacity, it takes a genuine investment of time, patience and dedication to moving your students not just towards achievement but towards ingenuity.

References

- Allen, D., & Tanner, K. (2006). Rubrics: Tools for making learning goals and evaluation criteria explicit for both teachers and learners. *CBE-Life Sciences Education*, 5(3), 197- 203.
- Andrade, Heidi Goddrich *Using Rubrics to Promote Thinking and Learning Educational Leadership* February 2000 volume 57 number 5, pages 13 – 18 (What do we mean by results?)
- Crosbie, Michael J. *Book Review: Design Studio Pedagogy: Horizons for the Future by Ashraf M. Salama, and Nicolas Wilkinson: Assessing Architectural Education's 'Crown Jewel'* (Archnet-IJAR, International Journal of Architectural Research, Volume 1, Issue 2, July 2007)

- Davies, A. (1996). Assessment and transferable skills in art and design. *Journal of art & design education*, 15(3), 327-331.
- De La Harpe, B., Peterson, J. F., Frankham, N., Zehner, R., Neale, D., Musgrave, E., & McDermott, R. (2009). Assessment focus in studio: What is most prominent in architecture, art and design? *International Journal of Art & Design Education*, 28(1), 37-51.
- Hattie, J., Timperley, H (2007) *The Power of Feedback*. Review of Educational Research 77.1: 81-112.
- Lindström, L. (2006). Creativity: What is it? Can you assess it? Can it be taught?. *International Journal of Art & Design Education*, 25(1), 53-66.
- Maki, P. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus.
- Petry, E. (2004) Work in progress – *Education and Practice: Assessment for Architecture Education*. Paper presented at the 34th ASEE/IEEE Frontiers in Education Conference, 20-23 October, Savannah, GA
- Rayment, T. (2007). *The Problem of Assessment in Art and Design*. Chicago, IL: Intellect Books, The University of Chicago Press.