Mentorship Through Critique: A Case Study

Brigham Young University

Esther Michela
Introduction

A seasoned professor sits down at a large square table with a group of five eager, entrepreneurially-minded students. To start, the group discusses one member’s recent leg injury, surgery, and ongoing recovery. Four similar groups spread out at tables across the room. One professor at the back of the room draws an individual student to one of the many whiteboards lining the walls, there the student draws a diagram and they consider it together. Another professor at the front of the room stands with a student at another whiteboard, deeply engaged in a discussion, sometimes drawing or writing on the board to illustrate. Another student joins them, at first listening, then asks a question. The first student takes the marker and explains the legal concept, adding emphasis to the written explanation. Professors speak and listen. Students ask questions and respond. The noise from all of the different conversations doesn’t seem to distract from the focused engagement. Back in the original group, a female student, one of only two or three females in the room, responds to a question, sharing the insights she’s gained from her research with their target customers.

The design studio has historically been used to provide a bridge between the formal academic learning environment and the professional world. An increasing number of fields are adopting aspects of the design studio, including human-computer interaction (Cennamo et al. 2011), industrial design (Brandt, et al. 2011), instructional design, and even business. While no two studios will function in exactly the same way, most will have similar features, including a studio instructor or master. One method that studio instructors use to share design knowledge is
through feedback and critique, which can vary in purpose, levels of formality, and the participants involved. Critiques, or crits, are often viewed with trepidation on the part of the students, as it involves judgment of their work and historically have often been characterized by harsh criticisms (Anthony, 1991). As the studio pedagogy continues to be adopted and adapted to the needs of these different fields, it is important to continue to investigate how the features of this pedagogical approach affect the individual growth of students in pursuit of their educational and professional goals.

In our study of the critique and review process in university studio-style classrooms, we have seen how instructor-student interactions can influence the learning experience beyond the acquisition of course content knowledge. While this, in and of itself, is not a new insight, as we have reviewed the experience of one undergraduate in an interdisciplinary studio, we have begun to interpret these “beyond content” interactions as a form of faculty-student mentorship. Instructors across pedagogical disciplines can, and do, foster mentoring relationships. Because of the highly interactive nature of the critique process we have studied, we have seen how instructors using certain patterns of critiquing activities, those commonly seen in design studios or other pedagogies where critiquing is a major component of the student experience, interact with students in a more intensely focused manner, creating opportunities to build deeper relationships. The critique process in a design studio environment, instead of provoking fear or dread in students, may provide a unique opportunity for instructors to build a deep and meaningful mentoring relationship which can support students in building their professional identities. We explored one particular example of this through case analysis by asking the
question: **How did one female undergraduate describe her experience receiving feedback in a mentored, studio-style interdisciplinary entrepreneurship course?**

**Lit Review**

It’s taken for granted that one purpose of any educational environment is to improve student skills and knowledge. In the design studio, one avenue for helping students improve is the feedback or critique sessions. The instructor providing feedback is viewed as an expert in the studio and passes on professional design knowledge (Schrand and Eliason, 2012), but must do so in various ways depending on the needs and skill levels of the students (Belkis, 2000). Dannels and Martin (2008) argued that “feedback serves to socialize students into becoming professional designers” in the studio, but acknowledged that there would be constraints in an academic setting that might work against the socialization process. With this view of professional socialization guided by an expert instructor, we turn to literature on mentorship.

The term mentoring lacks a universal definition in the research, as thoroughly discussed by Crisp and Cruz (2009) and again in Crisp, Baker, Griffin, Lunsford, and Pifer (2017). But by analyzing over 50 definitions identified in mentoring literature across disciplines, four areas of consensus of components of mentorship were identified: Mentoring relationships are (1) focused on the growth and development of students and can be constructed in various forms and (2) personal and reciprocal. (3) Mentoring experiences may include broad forms of support that could include professional, career, and emotional support; and (4) relative to their students, mentors have more experience, influence, or achievement within the educational environment. (Crisp & Cruz, 2009).
Methods

In our phenomenological case study, we recruited Roger, a business instructor from an interdisciplinary studio course, to talk about his experience. We asked for recommendations of students who could maturely articulate their experiences receiving feedback in the course and he provided four names and Sasha, a female undergraduate business major, agreed to participate.

We conducted three, 45-60 minute interviews each with Sasha and Roger over the course of the semester. We also conducted one observation of their interactions in the studio. The observation was used primarily to provide concrete examples of mentoring and feedback on which the interviewees could comment, but which also supplemented the interview data. The six interviews were transcribed and coded using thematic codes based on keywords from the interviews. We used an iterative coding process to label codes and recombine codes under a similar construct. As we analyzed the interviews, we sought to understand the meaningful aspects of her experience, perspective, goals, and outcomes.

To address issues of trustworthiness, we completed member checks by sharing emerging themes during the third interview. This gave Sasha and Roger a chance to respond to either confirm, refine, or challenge these initial interpretations. We also shared drafts of the manuscript with their quotes highlighted and asked them to respond with their thoughts on the accuracy of their statements and our interpretations. Results of Member Check:

Findings

In her interviews, Sasha described her experiences in the course, interacting with the mentor instructors, and receiving feedback from them. In this section, we explore two of the major themes that emerged from Sasha’s interviews: how her attitude towards feedback has
drastically changed over time because of her experience receiving it, and the value she placed on the relationship built with the mentors in the course.

**Background**

During her junior year, Sasha was accepted into a one-year, startup incubator where interdisciplinary students from backgrounds such as business, mechanical engineering, public health, and computer science receive funding to pursue an innovative business idea. During the first semester, the course focused on teaching the process of innovation and development of a business concept, followed by a summer internship. In the last semester, teams refined their business plans, conducted marketing research, and built product prototypes. Faculty members from the various subject areas act as resources for all groups and each group was assigned one faculty member as a dedicated mentor. Sasha originally learned about the program from Roger, who had previously been her professor. While he was not the dedicated mentor for Sasha’s group, he continued to play a role in instructing and critiquing their progress throughout the process.

The class met on a weekly basis, during which time Roger explained, “we're teaching processes and principles and models and underlying principles of innovation, whatever the context is, and then encouraging them to take that and apply it.” One of Roger’s stated goals for this course was to teach students, in developing a business model and product, “how to gather evidence, through experimentation, to make decisions that are grounded in evidence that has validity, to be self-critical about their evidence.” He asserted that feedback from the faculty mentors would play an important role in accomplishing this goal.“If they try to whitewash something with six faculty hearing the presentation, they're almost always going to have
someone call them out.” He further expressed his desire to fundamentally change how his students approached the information gathering process.

We want to transform them from young people who are comfortable just making it up or looking it up, to people who automatically say, ‘I'm skeptical of the evidence in Google or wherever else I look, how am I going to find out the unknowable?’

**Theme 1: Learning to Value Critique**

Over her college career, Sasha went from disliking feedback to valuing direct and specific feedback. We interviewed Sasha when she was a senior, during the last semester of the program. As a business student, Sasha was more involved in the pitches and marketing research than the product development. This was Sasha’s first experience in a studio class, “So, it was very unique coming into the classroom setting . . . kindergarten through thus far has all just been really traditional academic experiences”

Sasha viewed her previous experiences receiving feedback from professors throughout her college career as merely someone pointing out her mistakes, which was uncomfortable and unwelcome. She characterized herself as a perfectionist, “and so that kind of lends itself to being like, "Don't tell me I'm wrong or did something wrong." I just wanted to have perfect scores.” Her tendency was to reject negative feedback. “There's definitely been times where I've been very, very upset if I got a bad grade on a paper . . . in my mind it was like, "They're wrong for thinking I'm wrong. I'm not actually wrong."

But after 4 years of college, she asserted that her attitude towards critique had shifted. “I don't think I would have that attitude right now; I feel like I would want to go talk to them about like, "Okay, where did I go wrong, and tell me how I can do better next time." Sasha now viewed
herself as someone who “crave[s] feedback” for the different ways it can help her. “I think it's awesome because it directs you and sometimes it brings you back down to earth, and sometimes it pushes you to do more.”

**Feedback on mentoring days**

Sasha explained that the feedback she received served an important function in navigating the many unfamiliar aspects of entrepreneurship, but saw that it was more or less helpful under certain conditions. Several class periods were reserved as mentoring days for discussion between the groups and their mentor instructors. She described mentoring sessions as active interchanges where “you're never just sitting there and they're giving you feedback. You're always actively responding or actively asking questions for the feedback.” These sessions were fruitful for solving specific challenges through extended discussion when an instructor would respond to one question, but “then they kind of open up more and maybe they'll offer some feedback elsewhere once you get really talking about the project.” The feedback they received in a mentoring session might include probing questions or new entrepreneurship principles from which “we develop a study or a research, something that we can do quickly to either validate or invalidate that” leading to additional insights on next steps for the project.

**Feedback after a “pitch”**

Four times over each semester, groups made a presentation, or pitch, to the class and entire panel of mentors to report on their progress, after which the mentor faculty responded with questions and critique. Feedback after pitches had a different feel. She jokingly referred to it as, “Public criticism? I don't know. [Laughs] Competitive public criticism.” For her, this public environment wasn’t a problem, per se. “I love pressure and I love competition, and so that's just
the most pressured, competitive environment.” She described how the mentors’ responded to pitches by “asking specific questions … and then kind of offer insights.” Because of time constraints, she didn’t have the opportunity to engage in a dialogue to understand the feedback as much as she would have liked.

Sasha expressed that a lack of feedback, especially after a pitch, was not helpful to the progress of her group’s project. “Feedback is super important in these courses to really get learning, and I feel like any more specific and more structured feedback would probably be helpful.” She interpreted limited feedback as a sign that the mentor instructors were “disengaged” or “not really excited about the project, so it must not be good.” She welcomed negative feedback more than silence.

Even when you're giving lots of feedback and--even if it's critical and harsh—to me that means that you are invested in the idea succeeding, where if you're not giving feedback at all it's like . . . we [the instructors] don't have really much to say—positive or negative—because we don't care.

**Feedback from multiple sources**

Sasha acknowledged that not every suggestion from mentors would be fruitful, but that was not concerning. “You grow so much from feedback, even if it's wrong—even just learning that it is wrong is super powerful.” Sasha saw even conflicting advice, which different mentors provided frequently, as productive, because regardless of the suggestion or the expertise of the giver, the group’s responsibility was to take the ideas and test them on their own.
It's been really good for us to pin those things up against each other and test, and figure out what assumption we're going to go off of based on what people say and learning how to backup things versus just taking an 'n' of one and going for it. [Laughs]

By the end of the semester, Sasha and her group had begun to attend trade shows and professional conferences to seek more specific feedback and to “just present the idea in front of people that have no connection to us.” Her goal was to make this business idea as successful as it could be, and she realized that they needed to move beyond what the mentors could provide and into the real world, gaining feedback from her potential competitors. Sasha saw this as a continuation of the process she had been taught and direct preparation for her future career in business.

I think that school should prepare you for life, and we were at this conference . . . we got so much conflicting feedback . . . and you have to learn how to navigate all that. There's not going to be clear, like, "This is the exact right answer," you have to look at everything with maybe a little bit an eye of criticism and find ways. And so, I think learning to do that now is good.

Theme 2: Deeper Relationships

Sasha valued the deeper relationships she built with her mentors through this course and the feedback cycle. The relationship transcended solely course content and extended to her personal life and professional goals.

Value of the closer personal relationship

The design of this course was intentionally set up to foster mentoring relationships. At the beginning of the program, the teams went out for lunch with their assigned mentor, which
“was totally separate from any academic experience I've ever had.” It was there that they “just
built that friendship from the start and so we can joke around with him and have funny
conversations, serious conversations, so it's more like a relationship that's beyond just academic.”
She contrasted this with her experiences with previous instructors. “Other professors have kind
of seemed untouchable . . . because it's hard to develop that relationship with professors in a
traditional lecture-based class.” The frequent conversations provided opportunities to build a
“giving, receiving, giving, receiving type of relationship” over the course of the program. She
saw that “when we have regular . . . sit down and you talk conversation-type of mentoring days,
you really grow to develop a strong relationship with the professors.”

She expressed a juxtaposition between the intensity and the relaxed nature of the class
and attributed “more of that friendship relationship” built between the students and mentors to
the fact that, “we're all focusing on solving issues and problems. . . . They're definitely the most
intense professors with feedback that I've had, but also somehow the environment is just more
relaxed and you can talk to them about anything and joke around.” Some of the intensity came
with the pitches, or as she jokingly referred to them, “the public beatdowns. . . . that's when it feels
real, getting feedback in front of forty people; you can't ignore it; everyone heard it, and so you
really have to address it and so that's been really beneficial for me.”

Even with the intense moments, Sasha did not view the given feedback as “harsh.”
Direct and negative feedback served to find holes and weaknesses in their plan, which is what
she felt she needed to continue making progress toward a successful product.
I want to be proved wrong before we go on. . . . if this isn't going to work, we want to invalidate it, and all of our hypotheses are kind of directed to that, what are the possible ways were this could not work out.

Obstacles of closer personal relationships

While the personal relationship was very valuable to her, she acknowledged that it could create some problems. She felt that the closeness lead some students in her group to feel personally obligated to follow a mentor’s suggestions, or create a product that would fill his need, but she believed that the remedy for this was already built in to the structure of the class.

I think that the encouragement to test and always test the assumptions and to really get feedback from the industry and from customers has been kind of a good buffer of that. They'll give us feedback, “But you should really test this and see how it applies in your market,” and that's been really good.

At other times, she felt that instructors were not “straightforward enough” in their feedback, partly because their role as instructor involved nurturing relationships and encouraging students because “It's not like . . . they’re venture capitalist that can just be jerks to you and flat out, like, "I hate it," like, that's not going to work because they kind of have to facilitate that and cuddle you and make sure you're okay.” She also acknowledged that some students may not appreciate or be ready to hear direct critique.

I feel like direct feedback, if someone doesn't necessarily want that, it has the potential to damage that relationship and to maybe even damage the experience for them if they feel like it's just a negative thing that they're doing.
Despite the possible drawbacks, Sasha highly valued the relationships that she had built. She even asked two of the mentor instructors to be on her senior thesis committee. “I think taking yourself out of the academic situation and really trying to build real relationships, and asking questions beyond just the topics that you're studying, is the foundation for having that one-on-one interaction and having a better relationship.”

**Discussion**

Sasha described an overall positive experience as she learned to appreciate feedback in the context of an intentional and supportive mentoring relationship. The fact that Sasha was one of only a few female students, and that all of the mentor instructors were males, did not come up in the interviews. It’s not unusual for a female business student to receive instruction from male faculty. The national average of female MBA students is approximately 40%, and that number may differ for undergraduate business students, while only approximately 30% of business school faculty are women. (AACSB BSQ, 2015-2016). Despite the fact that she did not have access to a female mentor in this class, her outcomes of skill growth and preparation for professional settings are some of the intended outcomes of studio and are therefore worthy of inspection.

**Implications**

First, direct feedback, in a relationship where Sasha felt valued showed her that her instructors were invested in her work. Some instructors shy away from giving direct and negative critique to spare student’s feelings (Cennamo, 2014) and we are not advocating for a return to the days of callous critique that destroys student’s self-confidence. We are suggesting that in an
already supportive student-faculty relationship, students may, and in fact need to, learn to accept and value negative critique of their work.

A supportive, mentoring relationship is a two-way responsibility and Sasha had advice for what a student can do about fostering a productive feedback relationship. She recognized that “people want feedback, but they don't necessarily want feedback, if that makes sense.” So her suggestion is that students

Ask for a lot of feedback … "Give me more feedback. Tell us what we did wrong," instead of presenting it in a way that's like, "Here's all the things we did right. . . . It makes the other person feel more comfortable about telling you what you did wrong, and then for you, you've kind of let down that barrier, like, "I'm not going to be upset by it or offended by it."

Second, real world projects are important because they allow students to seek real world feedback. As a commonly accepted goal of studio, professional preparation means that students need to gain experience in authentic professional environments. Dannels and Martin (2008) suggested that studios may set up students for idealized work relationships and environments, rather than actual professional settings. Sasha’s experience taking her idea out to trade shows and industry experts suggest that some students are motivated by the real world possibilities of their ideas. Therefore, professors can intentionally structure the studio experience to guide students taking into account desired outcomes and skill level.

Limitations

There are several limitations that need to be addressed. First, as with any case study, diving deeply into one person’s experience makes it difficulty to generalize our findings to other
situations. However, we hope that some aspects of her experience will resonate with other studio instructors.

Second, the studio configuration that Sasha experienced was different than many design studios. It had a higher number of instructors than is typical, students were funded to develop and test their ideas, which may have given them more ready access to industry experts, and

Finally, the limited space of this article made it impossible to include other important elements of Sasha’s experience, including her relationship with the other members of her group.

**Conclusion**

The purpose of this case study was to examine one student’s experience receiving feedback. We did that and we learned stuff.
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