WIP: Cultivating Relationships with Clients in the Community: Enhancing the First-Year Student Experience

Rebecca Krylow, Duke University

I am the Program Coordinator for the First-Year Design Program at Duke University in the Pratt School of Engineering. My background in is interpersonal communication, and I have been a professional in the field of student affairs for over 15 years.

WIP: Cultivating Relationships with Clients in the Community: Enhancing the First-Year Student Experience

Introduction

The Pratt School of Engineering at Duke University ranks among the top 10% of its peers. Engineering at Pratt is defined by excellence in education, innovation, and research. First-Year Design (FYD) is an academic program within the Pratt School of Engineering at Duke University. Engineering Design and Technical Communication (**EGR101**) provides first-year students with the knowledge and experience needed to become successful engineers. Students work in a small team to learn and apply the engineering design process to solve an open-ended, client-based problem drawn from a community partner. All first-year students entering the Pratt School of Engineering are required to enroll in the course which in the fall semester is approximately 350 individuals.

This paper will provide an overview and progression of the course and outline the process the Duke FYD team has developed to identify, recruit, secure, and build client relationships. We believe wholeheartedly that client relationships have the potential to enhance students' experience in an Engineering course. This paper will also share best practices for initiating, developing, and sustaining client relationships which may be generalizable to other peer institutions with similar programs or engineering goals or needs.

Charting our course

Our team approaches identifying clients and the subsequent communication as a year-round process. An "Annual Communications Calendar" helps the FYD team chart the course of monthly communications with our clients. Preparation for the fall semester begins in April when as an FYD leadership team we prioritize two main tasks – itemizing all completed projects (the total sum during the program span) and brainstorming new possible clients. For the second, we brainstorm on notecards and typically generate around 80 client-types that we will act on. The second task focuses on big-picture areas, not necessarily on a specific client. For example, nail salons, local libraries, recycling centers, etc. We focus on organizations and economic areas that we interact with daily to serve as a starting point for identifying a specific individual or community partner.

During the months of May to June we are in "scoping season", and again, our tasks are two-fold. We are contacting previous clients to ask if they would like to serve as a client again. In some instances, we may be pitching the same project that we just ran, although this time working to enhance the solution, or perhaps they have a new idea. The second arm of scoping is contacting potential new clients. Each member of the FYD team has a smaller subset of potential clients and now we are looking for an individual within an organization to contact. To that end, we have created a "cold call" email template. This template was written with a specific emphasis on audience-centered speaking. Our audience, individuals who have not had exposure to our course, or may not be familiar with the field of engineering, need specific communication. This personalized email introduction is key to successfully communicating with a new client. Not only must clients be motivated to open the email and begin reading, but they need to quickly understand the “why” of the partnership. *What is engineering and how could it benefit their business? What types of possible problems could be solved?* Part of our cold call email is a brief chart of previous projects (3-5) from within the client’s “category”. Then, this category parallels with a specific “cold call” email template with a project example chart. Categorizing projects also allows us to visually identify areas that might be “light” or “heavy” on projects. Our categories are medical; educational; environmental; animals; infrastructure; and design for individuals with disabilities.

Clients are also sourced from the community by way of a community member who hears about the program and reaches out to a team member. Or, community members (especially alumni) reach out to the Pratt school, and eventually get connected to a team member. As mentioned previously it is important to offer a variety of projects for students not only due to the number of students that we have enrolled in the course but because students have a wide range of interests.

Meeting the student team

By August projects for the fall semester are placed into a specific course section (8 total in the fall). Communication now shifts to orienting clients to campus and arriving for “pitch day” when they will come on campus and “pitch” their project. Again, it is essential to implement audience-centered speaking. Our audience, the clients, are often unfamiliar with campus and how to navigate it. We are also coaching them through developing a pitch presentation that is brief yet impactful. We focus on the problem and solution outcomes, and not on using engineering-specific jargon.

Student teams are formed quickly and through student ranking. After hearing client pitches, students rank their top five choices. Then, instructor teams use the student ranking to form balanced and diverse teams. Once student teams are formed for each project, communication between the teams and each client begins with an interview. Teams learn more about the problem and needs of the client. Students learn how to formulate appropriate questions for a first-time meeting. As the semester progresses teams visit clients on-site to demonstrate the prototype, test, and get feedback. While those conversations are happening, we are also continuing our communication with clients. Student teams give two oral presentations during the semester and these presentations are recorded and sent to clients. Oral presentations focus on the engineering design process, how students identified the needs of the solution, and paired that with possible solutions. The second oral presentation focuses on iteration and prototype testing as they moved towards a single solution. Clients are invited, and very often attend, the final research poster symposium at the conclusion of the semester.

Personalized closing

As the semester winds down and prototypes are delivered, closing the semester with thoughtful and specific communication to clients is important. Students write thank you notes to their clients, and these are delivered in person, or by mail. We have also created a survey to gather feedback on the clients’ experiences. Questions focus on communication frequency from the student team; program coordinator, **EGR 101** instructors, and the Program Director. The survey also asks about the prototype feasibility, feedback for the student team, and if they want to serve as a client again. Finally, there is an opportunity to share any open feedback about their experience. The survey is not anonymous. Greater than 70% of clients who responded to our survey said they would like to return as clients the following fall semester. And more than 90% of clients were satisfied with the frequency of communication with their assigned student team(s). Clients who respond that they want to continue as a client next semester act as seed clients in the pool of clients for the upcoming year.

Recently, we have placed an emphasis on leveraging our current client database to connect us to possible new clients. A "recruitment flyer" was developed and sent to recent clients asking them to post in a physical space and/or share with anyone who might be a great fit as a client. Because past clients now understand the role of a client, they are now an advocate for the experience. An email was sent last week to approximately 50 past clients and the FYD team has already received five emails from brand-new contacts. Flyers, even in electronic form, are a reminder that methods of recruiting can be traditional and should be varied.

Conclusion

The course simply would not be possible without our vast client partnerships. Peers at other institutions who might consider implementing a similar program may have been thwarted by the idea of having to take on the heavy lift of finding clients. The "how" can feel obscure, cumbersome, and a bit overwhelming. *"How would we identify the gains for the client? For our students?"; "We are a small staff and don't have the time to set up meetings to explain our course"; or "First-year engineering students don't have the skills yet to build something useful for a client"* are a few examples of concerns that faculty and administration might have. Moreover, it may be assumed that community partners would be uninterested in working with first-year engineering students. In contrast, our team has found the community to be very interested in partnering with our first-year engineering design course to bring authentic projects to our first-year students.

To conclude, in **EGR 101** students have the opportunity not only to work on a real-world problem, but a problem that has been sourced from a client with whom they will meet and work with for the course of the semester. Design skills, and interpersonal skills, are developed simultaneously. A former EGR 101 student who worked on developing a chair for patients with limited mobility who need a back x-ray, shared, "I was so excited. For the first time in my life, I'd gotten to make something with my hands. I made a creation that could turn into a real product." A multi-pronged approach is needed to initiate, build, and sustain client relationships. But it is an approach which results in building mutually beneficial relationships; meeting course learning outcomes; and enhancing the student experience.