

## Chapter 15

# Prototyping and Student Engagement: A Case Study in Design Thinking

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### ABSTRACT

*Design thinking strategies are used to engage stakeholders to define a problem, inspire creativity in solution designs, prototype, iterate together, and implement solutions that reflect the community for which they were designed. Increasingly, these strategies are being used within student success and innovation work in higher education. The primary purpose of this chapter is to explore the importance of the “prototype” phase of the design thinking process when applied to designing co-curricular experiences through a case study of an institution that utilized design thinking and service improvement frameworks to design an academic and career advising system to best serve students.*

### INTRODUCTION

Making a major change on a college or university campus is a daunting task. However, when faced with large-scale problems, small, incremental changes can be problematic, and are often not enough to achieve desired outcomes. So, what is a campus to do when they need to improve student success and retention? As others have noted (Martin, 2017), we know what works, we just have difficulty scaling up to a campus-wide implementation.

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When challenged with creating specific and focused plans to improve retention, a large urban public university identified academic advising as one area where improvements could have a significant impact on student outcomes. While the institution had grown its academic advising staff significantly over the past 10 years, it needed to better coordinate advising systems to improve both the student and advisor experience. With the support of university leadership, a team of current advisors and staff (“the workgroup”) spent nine months envisioning a revitalized academic and career advising system through a theoretical framework of student retention and a specific design process. The process was intentional, iterative, and engaged the entire campus community—most importantly its students.

Engagement of students in problem posing, as well as solution generation, is meant to enhance their sense of agency in their education as well as their learning. Through the process of academic and career advising redesign, advisors were trained as designers—using design thinking strategies alongside students—to redesign the advising system. We offer our guiding frameworks (service, retention, and design), discuss students as stakeholders and their role in both prototyping and redesign of advising, and share how prototyping solutions with student involvement resulted in an advising system that allows students to connect their co-curricular learning to their academic and career goals. Relatedly, this chapter also examines the role of academic and career advising as delivery of co-curricular learning. Academic advisors can be positioned to foster the improvement of learning outcomes for students when providing holistic advising in an environment that supports student exploration and critical thinking.

### **Guiding Frameworks**

Several frameworks guided the redesign process at different stages. The guiding principle of service improvement set the stage for the project; a theoretical framework of student retention aided in connecting recommendations to best practices; and design thinking was the process that provided structure and accountability. Together these three frameworks grounded and supported the work of the redesign initiative.

First, utilizing the principles of the service profit chain (Heskett et al., 2008), we focused on employee satisfaction as a driver for value and ultimately growth. Improving the experience of academic and career advisors empowers them to provide improved service (Frei & Morriss, 2012) to students, which in turn, improves the student experience. This lens helped narrow the scope of the work, making it clear that a sustainable system cannot offer every possible service. This made student participation all the more important; helping to prioritize those advising services students need the most.

Second, a theoretical framework of student retention was based on the research of Braxton, et al. (2013). The framework supported an integrated design approach that helped to view the collected data and align the recommendations with a theoretical perspective grounded in the current literature of student retention. The Braxton et al. model explicitly addresses student persistence at a commuter university, where academic and intellectual development is the primary driver for student commitment to the institution, which in turn results in increased student persistence. The institution can influence academic and intellectual development through improving students’ perceptions of institutional integrity (how we act according to our mission and goals) and institutional commitment to student welfare (do we show that we care about the student).

There are institutional levers of action that contribute to student perceptions of institutional integrity and commitment to student welfare at commuter universities (Braxton, et al., 2013). These levers are based on a meta-analysis of research on student retention and provide the foundation for applying the Braxton et al. framework to institutional change. The institutional levers are related to academic programs, enrollment

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