8. Ideating a New Program: Implementing Design Thinking Approaches to Develop Program Student Learning Outcomes

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Abstract: This chapter discusses how a design thinking process was used to create student learning outcomes for an undergraduate writing and rhetoric program. Design thinking is a creative process for solving complex problems through divergent thinking and active, collaborative design practices. The chapter traces the creation of the program student learning outcomes through five project phases: empathizing, defining, ideating, prototyping and testing, and implementing. The chapter demonstrates how users were actively involved with the design of outcomes and how their ideas were taken up throughout every phase of the process. Ultimately, the chapter builds a model for programmatic design thinking to create opportunities for building more representative and inclusive visions for our curricula.

Keywords: design thinking, student learning outcomes, academic program development, problem setting, divergent thinking

Key Takeaways:

- Design thinking can act as a flexible heuristic for creating curricular design projects.
- Divergent thinking practices create space for including students' and other participants' perspectives in curricular design.
- Design thinking activities, such as problem setting, highlight the need to identify and focus on curricular issues that matter to stakeholders, including students.
- Design thinking is iterative, and, as such, it works best when solutions are modeled, tested, and changed over time.
- While user experience (UX) practice is more time-consuming than relying solely on faculty expertise, UX data provides unique situational insights about specific contexts and student users.

From 2017 to 2018, the writing and rhetoric program at my institution used design thinking and user experience (UX) methods to develop program student learning outcomes for a new writing and rhetoric major track. *Program student learning outcomes (PSLOs)* define the desired "skills, knowledge, and other attri-

butes" for a graduate of an academic program (Carter et al., 2003, p. 105). Regional accreditation agencies have argued that PSLOs are "the principal gauge of higher education's effectiveness" (Ewell, 2001, p. 1) and a key element in programmatic assessment (Southern Association of Colleges and Schools Commission on Colleges, 2020). The academic literature has also emphasized the uses of PS-LOs beyond assessment, including for explaining programmatic identity and for "[helping] our students explain what skills they bring with them to the workplace and how they orient themselves as citizens" (Clegg et al., 2021, p. 30).

Despite the acknowledged importance of PSLOs, there has only been limited attention to the PSLO design process. And as Paul Anderson (2010) argued, the typical PLSO design process relies on expert and disciplinary knowledge: "We generally construct our objectives by consulting several sources, including our faculty's interests and knowledge of our field, the needs of the employers who hire our graduates, and the objectives adopted by programs at other institutions" (p. 58). Notably, this process does not include space for participatory UX methods that would intentionally include the voices and perspectives of diverse stakeholders, including students. Evidence of the typical approach is also reflected in the numerous institutional guides for developing PSLOs. For example, a guide developed by the University of Florida focused much of its attention on using Bloom's Taxonomy verbs for phrasing outcomes as S.M.A.R.T. (Specific, Measurable, Achievable, Relevant, and Time-bound) goals (Brophy, 2017). However, this guide only spent a quarter of a page to outline a design process which asked faculty to review and revise existing PSLOs to align them with Bloom's Taxonomy verbs. Still, some other guides do spend more time describing PSLO design processes. For example, a guide developed by the University of Nebraska-Lincoln described six strategies for creating PSLOs, including holding conversations with department faculty, examining existing instructional materials, and reviewing similar units or programs (Jonson, 2006). Yet these varied strategies still emphasized a closed, faculty-centric approach rather than a UX design methodology.

Meanwhile, recent assessment literature has signaled a potential shift toward more inclusive and iterative PSLO design methods. For example, Chris Anson (2010) recommended a recursive process that combined outside-in and inside-out approaches for PSLO development. In the outside-in approach, committees and administrators define PSLOs and then assess and refine those outcomes based on evidence. In the inside-out approach, individual teachers define outcomes based on their own experiences and instructional strategies. While Anson's model still relied heavily on faculty input, it opened the design process to additional participants and emphasized an iterative process. Jo Allen (2010) also created a heuristic that mapped institutional values to program outcomes to curricular content and extra-curricular learning opportunities in order to create a coherent educational vision. In doing so, she showed how PSLOs could respond to the local context of a program. Likewise, Geoffrey Clegg et al. (2021) argued for fitting outcomes to local exigencies and for "a continuous improvement model [that] consistently

[revisits] the PSLOs to determine how well they are working for students, faculty, programs, and external stakeholders" (p. 11). Other technical communication literature has also discussed UX-inspired academic program design without explicit reference to PSLOs. For example, Deb Balzhiser et al. (2015) described the application of participatory design, through a questionnaire and focus group, to create a master's program definition. They also used the information sources to align their program with the expectations of their primary audience of working professionals. And Teena Carnegie and Kate Crane (2019) described how they used interviews with graduates to regularly iterate on their undergraduate curriculum and to ensure that it remained responsive to current professional needs.

This chapter contributes to the program development literature by describing how a UX mindset can alter the PSLO design process. As Cargile Cook and Crane argue in this collection, UX reorients us toward continual, recursive, highly contextual attention to students' needs and motivations rather than experts' assumptions. To meet these UX goals, this chapter describes how a design thinking process can support active and collaborative methods that integrate the knowledges and experiences of numerous stakeholders. In this way, *adopting design-thinking practices can help to move us away from a faculty-centered committee model and toward a participatory approach to PSLO design that focuses on students' experiences, needs, and goals.* Ideally, this process will result in more responsive, representative, and inclusive program definitions.

In the sections that follow, I review the field's literature on design thinking and situate it in relation to UX. Then I describe the history of my institution's writing and rhetoric program and explain how we used a design thinking process to create PSLOs. Next, I discuss the challenges we encountered during this PSLO project. Finally, I close by sketching a rough model for adapting design thinking to programmatic work.

▮ Design Thinking in Writing Studies and User Experience

This literature review explores definitions of design thinking, situates design thinking within technical communication and writing studies research, and compares it to UX. Broadly speaking, *design thinking* is defined as follows:

> the human-centered process of imagining, creating, testing, and revising responses to critical, highly contextual, dynamic, and messy problems. . . . Design thinking is a way of problem framing and problem solving that values empathy with audiences and users, "radical" collaboration, ambiguity, a bias toward action, productive failure, iteration, and regular feedback. (Pope-Ruark, Tham, et al., 2019, p. 371)

However, there is still significant disagreement between competing definitions of design thinking. Lucy Kimbell (2011) divided definitions into three cate-

gories: "design thinking as a cognitive style, as a general theory of design, and as a [managerial] resource for organizations" (p. 285). She noted that, while the first two definitions were drawn from academic studies of the practices of designers, the managerial approach was the most common implementation of design thinking but "[lacked] a wider research base" (p. 294).

This managerial approach has proliferated over the past two decades, and in that time, various design consultants have promoted their own flavors of design thinking. For example, the British Design Council represented design as a double diamond with two sets of paired stages: discover and define, then develop and deliver (Tschimmel, 2012). IDEO depicted it as three spaces of inspiration, ideation, and implementation (Brown, 2008). IBM Enterprise Design used the model of a loop with recurrent phases of observing, reflecting, and making (IBM, n.d.). And the Stanford d.school described it as a five-step process of empathizing, defining, ideating, prototyping, and testing (*An Introduction to design thinking: Process guide*, 2010). While I adopt the d.school structure in this chapter due to its ability to open space for critical reflections on my PSLO design project, it is important to note that all these formulations of managerial design thinking share the same core practices. First, designers observe and interview stakeholders to better understand their needs. Based on this information, designers seek to clearly define the design problem. Next, large multidisciplinary teams use active, collaborative, and visual design exercises to imagine many potential solutions to the design problem. Then the teams prototype and test select ideas with potential users. Through several iterations, the prototypes are narrowed and refined until one design is finalized and implemented as a product or service. Two further points should be made about these phases. First, each phase is treated as cyclical and recursive, so further user research can occur after the product implementation, which can lead to further ideation and prototyping, etc. Second, the phases are often conceptualized as cycles of divergence and convergence: designers intentionally open up to a multiplicity of ideas and then move toward defining or narrowing solutions. For example, divergent thinking is often the focus of the ideation stage, while convergence to a singular design solution is a goal of the testing and iteration phase.

It is important to note here that there has also been significant pushback on managerial design thinking. Designers and academics have argued that it does not accurately reflect professional design work (Vinsel, 2017), that the various phases have become overly formalized (Nussbaum, 2011), and that it can reinforce colonialist worldviews of global salvation (Khandwala, 2019). In some cases, new design thinking methodologies have been developed to address these issues. For example, Kimbell (2012) situated design in local contexts, recognized contributions from non-human actors, and de-centered the agency of the designer. Likewise, Lucía Durá et al. (2019) integrated design thinking with positive deviance inquiries to offer better approaches for advocating for users. And Amollo Ambole (2020) argued for decentering Western paradigms for projects in Africa

in favor of design thinking approaches that attended to the specific sociocultural contexts of local communities. Together, this literature can help designers better attend to local cultures and exigencies.

Despite the criticisms, there has also been a growing interest in managerial design thinking in writing studies scholarship. This interest likely stems from the field's extended discussion of design, which can be traced back to Charles Kostelnick's (1989) comparison of the writing and design processes (Leverenz, 2014). The writing studies literature now includes more than 26 articles with various frames, including design as digital or multimodal writing and design as the process of creating course structures (Purdy, 2014). Recent articles have also offered practical approaches for adapting design thinking to the work of creating courses and assignments. Richard Marback (2009) argued for framing writing assignments as wicked design problems, which are contingent problems "of deciding what is better when the situation is ambiguous at best" (p. 399). James Purdy (2014) aligned the d.school formulation of design thinking with the writing process to demonstrate how we might reframe writing classes as design work. And Carrie Leverenz (2014) argued that adopting design thinking practices, such as prototyping and design briefs, could help connect the writing classroom to the outside world. Numerous others have taken up these arguments to explore the application of design thinking to a variety of specific writing classes (Belcher, 2017; Cooke et al., 2020; Khadka, 2018; Lane, 2018; McCarthy, 2016; VanKooten & Berkley, 2016; Wickman, 2014). Further information on many of these papers can be found in Rebecca Pope-Ruark, Joe Moses, and Jason Tham's (2019) useful bibliography of the design thinking literature.

Meanwhile, the exact relationship between design thinking and UX remains contested. Articles in professional trade publications have compared the concepts, but they have not always agreed on the relationship between them. For example, Dirk Knemeyer (2015) argued that UX is focused on tactical design decisions for specific products, while design thinking is focused on open-ended, strategic decisions, thus differentiating between the concepts based on their intended scope. Charan Singh (2016) described the difference as a relationship between methodology and process. He depicted UX as a methodology for user-centered design that evaluates a user's quality of experience while focusing on a single technology. As such, he likened it to other user-centered design methodologies such as interface and system design. On the other hand, he described design thinking as a process that could be used for any of these methodologies. While these articles offered interesting comparisons between the concepts, they also used constrained definitions of UX. Academic publications typically use a broader definition of *UX* that includes "the architecture of systems both above and below the surface (i.e., architecture of interactions, visuals, content, structure, and policy)" and also "how an individual component is part of a larger ecosystem [of] multiple technologies, devices, websites, organizations, people, and events" (Potts, 2014, p. 3).

Using this perspective, Ehren Pflugfelder (2017) built a strong connection between UX and design thinking through the rhetorical frame of *techne*. First, he differentiated between design thinking and design science: whereas design thinking uses divergent approaches to develop creative solutions to potentially ambiguous problems, design science seeks to create a rational, consistent, and empirical system for solving problems in specific fields. After building this differentiation, he used the rhetorical frame of *techne* to connect design to UX. Drawing on the work of David Roochnik (1996) and Kelly Pender (2011), Pflugfelder described two kinds of *techne*. *Techne 1* "is a determinate, universal, infallible set of techniques used to accomplish something" that "resembles an instruction set" (Pflugfelder, 2017, p. 173). This kind of *techne* included both usability testing and design science. Meanwhile, Pflugfelder defined *techne 2* as "an abstract process to be consciously employed in variable-rich contexts" (2017, p. 174). *Techne 2*, then, represented both UX and design thinking: they are both methodologies for handling messy problems, and they both have associated methods that can be flexibly employed according to the situation and problem definition. Pflugfelder further emphasized the overlap of the two concepts by using the design thinking methods of problem setting and divergent thinking to create a user-needs gap model for UX work.

In short, this chapter takes up Pflugfelder's argument by reframing PSLO development from a design science to a design thinking perspective. The traditional faculty-centered approach treats PSLO development as a neat problem that can be rationalized efficiently and effectively through a universal set of techniques. But this approach elided the complexities of the localized knowledges, values, and experiences of program stakeholders. Instead, I discuss and reflect on my program's effort to use a flexible design thinking process that integrated problem definition, divergent thinking, and iteration as a response to the inherently messy problem of curricular design.

■ Institutional Context

The English department at my institution houses four relatively independent programs in creative writing, linguistics, literature, and writing and rhetoric. Traditionally, the department awarded undergraduate degrees in literature and English education, and it offered M.A. degrees in literature and linguistics, and an M.F.A. in creative writing. The writing and rhetoric program did not have strong representation in either the undergraduate or graduate degrees. A reflection of this can be found in the description of electives in the 2010-2011 undergraduate catalog:

> Upper-division electives [are offered] in writing, film, literature, and/or linguistics. The English Department recognizes a continuing obligation to ensure that its majors write well. The Chairperson

may require any English major to take the appropriate composition course. English majors may choose to take a general program of English studies or may select one of the Department's three areas of emphasis: literature, language and linguistics, or creative writing. (Florida International University, 2010, pp. 197-198)

In this description, composition courses were mentioned primarily as an obligatory support for some students, while the other programs were described as potential areas of emphasis and interest. While the Writing and Rhetoric Program still offered a few upper-division electives at this time, it focused primarily on the first-year composition sequence and the technical communication service course. This focus was logical. The department is part of a very large (more than 45,000 undergraduate students) public, minority-majority, urban research, Hispanic-serving institution. Each year, we offer approximately 300 sections of first-year composition and 60 sections of the technical communication service course. To manage this workload, the program supports approximately 40 full-time faculty, and it coordinates with other programs across campus, including the Global First-Year Program and the Writing Across the Curriculum Initiative.

In 2012, the writing and rhetoric program created a new professional and public writing certificate that drew interest from students across the campus and graduated 30-40 students each year. The certificate created a demand for new upper-division courses and supported requests for new tenure-track hires. Ultimately, the certificate acted as proof that there would be student interest in a full writing and rhetoric degree.

The program's first attempt involved the creation of a writing and rhetoric M.A. In 2014, program faculty researched local demand and drafted a proposal for the new degree. It was initially approved by the department before being halted due to a broader freeze on new M.A degrees.

Over the next few years, the program began to focus instead on the creation of an undergraduate degree. Then in Fall 2017, the department introduced a new version of the English major with a shared core of four classes (one in each program) and extended tracks in each of the four programs. Students specifically enrolled in the writing and rhetoric track were required to take survey courses in rhetorical theory, writing studies, and technical communication as well as three additional upper-division electives. These electives were initially based on faculty members' individual interests and were often built from pilot sections into official courses. From 2017-2019, the program offered at least 20 different electives, including Writing as Social Action, Community Writing, Alternative Writing & Rhetorics, Writing Across Borders, Writing About the Environment, Advanced Business Writing, and Queer Rhetorics.

While the faculty were excited about the new undergraduate degree, we also expected growing pains. At program meetings during the 2016-2017 academic

year, we discussed methods for promoting the new major track and for recruiting students. Still, only limited progress had been made on these tasks when the major track began enrolling students in Fall 2017.

During that same semester, several of our faculty attended the Council for Programs in Technical and Scientific Communication (CPTSC) conference, where presentations discussed methods for applying UX research techniques to assist with academic program design (e.g., Moore et al., 2017; Shalamova et al., 2017). In particular, Jennifer Sano-Franchini et al. (2017) facilitated a useful workshop on collaborative ideation and curricular assessment techniques that included an affinity clustering activity. These presentations acted as an inspiration for our program's work over the following year.

■ A Design Thinking Approach to Curricular Design

We began our project intending to explore the perspectives and experiences of program stakeholders to find ways to promote the new major track. The use of data from this project was approved as an exempted study by my university's institutional review board for human subjects research (#18-0178). The subsections that follow will be framed specifically according to the d.school process of design thinking, which includes specific stages for empathizing, defining, ideating, prototyping, and implementing. I am using this structure here primarily because it offers a means to organize the discussion and to reflect on areas of revision in future iterations of this work.

■ Empathizing with Program Stakeholders

A common first step in design thinking is getting to know stakeholders and understanding problems from their point of view. The d.school has argued for the centrality of this phase:

> As a design thinker, the problems you are trying to solve are rarely your own—they are those of a particular group of people; in order to design for them, you must gain empathy for who they are and what is important to them. (*An Introduction to design thinking: Process guide*, 2010, p. 2)

Some practitioners have also essentially described this phase as qualitative UX research:

> Focus on users' experiences, especially their emotional ones. To build empathy with users, [designers] observe behavior and draw conclusions about what people want and need. Those conclusions are tremendously hard to express in quantitative language. Instead [designers] that "get" design use emotional language (words that

concern desires, aspirations, engagement, and experience) to describe products and users. (Kolko, 2015)

The research methods for this phase vary based on the design brief, but they often include observations of environments or tasks, interviews with stakeholders, focus groups, questionnaires, and card sorts (IDEO, 2015). Still, most of these qualitative methods are focused on rapid results and often lack the depth of prolonged ethnographic studies (Beckman, 2020).

For the empathize phase of the curriculum design project, I interviewed faculty and students about their experiences in the program. First, I recruited faculty who had designed and taught at least one upper-division writing and rhetoric course. Student participants were then recruited directly by those faculty. Student participants included recent graduates and current members of the literature major and the professional and public writing certificate as well as a few students in the new major track. The only strict requirement was that student participants had to have completed at least one upper-division writing and rhetoric course. During this phase, I interviewed 7 faculty and 12 students.

The interviews were relatively short (15-20 minutes) and were focused on three areas: (a) participants' favorite topics in rhetoric, (b) participants' best experiences in our courses, and (c) existing programmatic needs. A full list of the questions for each participant group can be found in Appendix A. After the interviews were complete, I developed a summary of the responses and distributed it to all participants and to the rest of the program faculty. This summary acted as a starting point for the project's subsequent design thinking phases.

A few trends from these interviews are worth mentioning. First, faculty participants described the ideal track broadly and included rhetorical theory, academic and professional research methods, professional communication, digital media, and community writing as core topics. Likewise, there was not a consensus among faculty about the likely career outcomes for students: they mentioned academic, nonprofit, teaching, and professional writing careers but largely avoided specific technical specializations. Finally, faculty reported enjoying their teaching work: they liked the variety of classes and spoke highly of the students.

Students also spoke positively about the program and the faculty and staff. Their best experiences were interactions with faculty members and other students. Their ideal curriculum was focused on the practical application of rhetoric to everyday and professional life, but they also enjoyed researching topics related to personal interests. They emphasized broad writing practices and rarely mentioned specific theoretical concepts. Students also described a range of career goals including academia, copywriting, editing, publishing, law, technical writing, public relations, and teaching.

Since the participants were not a representative sample and because we wanted to get students actively involved in our design process, we did not use the interview results as generalizable data to support specific programmatic changes.

Instead, we used them to understand the situation more clearly and as an inspiration for our subsequent work. In that way, the interviews played a significant role in the next phase of problem definition, which, in turn, informed the ideation methods that followed.

■ Defining the Goals for the Project

The definition phase "brings clarity and focus to the design space" with the goal of "[crafting] a meaningful and actionable problem statement" (*An Introduction to design thinking: Process guide*, 2010, p. 4). This phase is often associated with the activity of *problem setting*, which has been contrasted with the design field's traditional focus on problem-solving:

> We ignore problem setting, the process by which we define the decision to be made, the ends to be achieved, the means which may be chosen. In real-world practice, problems do not present themselves to the practitioner as givens. They must be constructed from the materials of problematic situations which are puzzling, troubling, and uncertain. (Schön, 1983, pp. 39-40)

Problem setting has also been discussed in relation to technical communication work. Jeremy Cushman (2014) framed it as a largely invisible rhetorical practice that could add value to our work, and Pflugfelder (2017) developed a user-needs gap model for problem setting in UX work.

For the PSLO project, three elements of the interviews contributed to the problem-setting phase: the broad program definitions by faculty, the emphasis on practical application by students, and the lack of a shared vision among the participants. While these elements suggested some marketing strategies (e.g., tying classes to specific jobs or highlighting student testimonials), they also demonstrated the need for a clear and specific vision for the program. In other words, the interviews largely shifted our attention from marketing to program definition as our core problem.

This problem-setting move was not unexpected. Because the program was created as a new track within an existing major, the institutional proposal required less documentation. Broadly, the proposal used a circular definition, saying the writing and rhetoric track was "designed for students who have a particular interest in writing and rhetoric." It then offered a wide range of potential career goals for students, including:

> a variety of academic, professional, and community contexts, including professional and technical writing positions within South Florida and beyond; K-12 teaching positions in language arts and writing; graduate study in rhetoric and composition, writing studies, law, and other professional, multimodal, or writing-related

fields; and work in a variety of other writing-intensive non-profit and for-profit professions.

Finally, it described the curriculum as "six specialized courses in the field of rhetoric and composition, including a nine-credit required sequence that introduces [students] to writing studies as a field, the discipline of rhetoric, and professional and technical writing." This abbreviated documentation accelerated the creation of the track, but it also created ambiguous program definitions at the outset. On the other hand, tacit program definitions were more developed due to the previous attempt to create a master's program, but these definitions were never made explicit for the undergraduate program. Therefore, the interviews with faculty and students reintroduced the program definition as a concern that preceded work to promote a specific vision of the program. After consulting with the program administrator and other faculty, I refocused the design brief on creating PSLOs with the goal of helping students conceptualize and explain their achievements in the program.

Ideating Potential Program Outcomes

Once the problem is defined in relation to stakeholder needs, design thinking shifts to an ideation phase that focuses on developing a range of potential solutions to the problem (Pflugfelder, 2017; Purdy, 2014). This phase is often depicted as a process of *divergent thinking* or of "[seeking] multiple perspectives and multiple possible answers to questions and problems" (Kim & Pierce, 2013, p. 245). Divergent thinking has been contrasted with the analytical thinking method, where options are narrowed logically and incrementally until a single solution becomes obvious (Brown & Wyatt, 2010). Conversely, divergent thinking makes space for more voices in a way that can lead to creative and innovative solutions (Leverenz, 2014). To foster divergent thinking, ideation typically takes place in multidisciplinary teams or workshops where participants use active collaboration techniques to conceptualize and prioritize potential solutions to a given problem. The exact methods vary, but organizational guides and popular press books have offered numerous ideation exercises (Gray et al., 2010; IDEO, 2015; Mattimore, 2012).

The ideation phase for the PSLO project consisted of two identical workshops that lasted two hours each. Initially, the phase was planned as a single workshop, but conflicting schedules made it impossible to locate a single time that would work for all participants, so two smaller, identical workshops were used instead.

Workshop participants reflected the diverse disciplinary, institutional, community, and cultural identities of members of our academic program. Three tenure-track faculty, three non-tenure-track faculty, a staff member (the department's long-serving academic advisor), and four students participated in the

workshops. Faculty participants were recruited to reflect a range of disciplinary emphases, including professional communication, cultural rhetoric, and community writing. Student participants were also intentionally recruited to reflect the predominantly Latinx and Black student population of the university. Finally, two local industry representatives were also recruited, though both withdrew before participating in the workshops. The goal of this approach to recruitment was to develop more inclusive visions for the program while also reflecting the range of specialized knowledge of participants.

The workshops had six stages: 1) introduction, 2) warmup, 3) ideation, 4) categorization and prioritization, 5) prototyping, and 6) reflection. I will discuss each of these stages below.

I used a brief introductory presentation to establish the goals of the workshop and to explain the design thinking process. None of the participants had previously used design thinking methods, and the student participants were unfamiliar with curricular development. Therefore, I reviewed the history of the local problem and the results of the interviews. Then I briefly summarized the literature on PSLOs and design thinking. I primarily used this presentation to encourage positive orientations toward the work we were doing.

Next, we used a warmup brainwriting exercise to energize participants and to get them thinking about the problem space for the workshop (Gray et al., 2010). In brainwriting exercises, each participant writes down an answer to a prompt and then passes the answer to the next participant, who uses it as a new starting point; after several rounds, the paper is returned to the original owner, who selects and presents their favorite ideas to the group (Mattimore, 2012). To allow for more variety, I gave participants several different prompts, which covered topics related to effective writing and rhetorical practice. A complete list of the brainwriting prompts can be found in Appendix B. Among other things, participants discussed building a growth mindset, using journaling to ease into writing projects, and designing succinct texts to communicate complex information. The responses from this exercise were not used directly in later steps but were, instead, primarily intended to get ideas flowing so that the subsequent ideation stage would be less daunting.

Next, the workshop moved into a rapid ideation exercise where participants responded to a series of prompts by writing or drawing ideas on sticky notes. While there are numerous ways to conduct this exercise, research has suggested that alternating individual and group ideation allows for more creative ideas while also helping participants to build on each other's contributions (Korde & Paulus, 2017). Participants were given the following typical ideation guidelines (Dam & Siang, 2018):

Write only one idea per sticky note.

- Work rapidly and aim for quantity.
- Defer any criticism (including self-judgment) during idea generation.
- Aim for unconventional, creative, and wild ideas.

Participants had five minutes per prompt to write down as many ideas as possible. Timing this exercise effectively can be difficult: the demand to continually and rapidly write new ideas can be exhausting for participants, but people often develop their most creative ideas only after recording more obvious or mundane ideas first (Mattimore, 2012). The key with timing, then, is to find a happy medium between creativity and exhaustion. The five-minute time limit seemed to work well to balance between the participants who stopped around the three- or four-minute mark and the other participants who continued working until the very end.

Since participants had varied experience and knowledge, I presented prompts in sets, which included questions customized for students, faculty, and practitioners. Each participant was still free to respond to any version of the prompt. Broadly, the first three prompt sets asked about the skills, knowledge, values, and experiences that graduates of the program should have. The fourth set asked for anti-definitions of our program. A full list of these prompts can also be found in Appendix B.

In total, participants in the two workshops developed 247 ideas about graduates of the writing and rhetoric degree. Some ideas described specific genres that graduates should know, including "write an effective resume/CV" and "create a website, podcast, or app." Participants also discussed rhetorically aware communication practices, including "thinking usefully about the reader's experience" and "practicing rhetorical listening." And they talked about productive values and mindsets, including "cultivating empathy for others" and "valuing a diversity of thought and style." Finally, they identified experiences that they hoped graduates would have, including "managing an extended writing project" and "having a meaningful mentorship experience." The ideas ranged from the typical goals of writing programs to more inventive visions for what our program could be.

There were so many ideas that the space required to cover them all would be prohibitive. So instead, I will trace one set of ideas from this early ideation stage through the rest of our project. Specifically, participants in both workshops recorded ideas related to writing about personal experiences and values. The following list shows examples of these ideas from each workshop.

Workshop 1

1. Have the freedom to conduct research about something we truly care about.
2. Students should engage in meaningful projects connected to their life, goals, values, etc.
3. More opportunities for personal writing.
4. The personal/untellable is still important.
5. Students should know who they are and what they believe and why.
6. Explore commitments, interests, expertise, values.
7. The time, energy, and focus it takes to craft pieces of effective writing.

Workshop 2

1. Graduates should have had a rewarding, or even fun, writing experience.
2. Find some joy in rigor.
3. Be okay with failing at writing.
4. Learn to be naked (become comfortable with critique).
5. Be willing to take creative risks.
6. Work really hard on a personally meaningful project.
7. Write what we want to write about.

This focus on personal interests and experimentation had been left out of our previous conversations about the curriculum, which focused more on the standard areas of rhetorical theory, professional writing, etc. As such, it represented a direction for the program that we discovered primarily through the workshops.

In the next workshop stage, participants categorized ideas using an affinity diagramming method where they first grouped sticky notes together without discussing their reasons, then named the groups, and finally, voted for the most important groups (Spool, 2004). In our workshops, participants initially created many different idea clusters, but they were subsequently asked to consolidate them whenever possible. Once the participants were satisfied with the clusters, they named them. Overall, each workshop created 15 named categories, with some similar or shared names across the workshops. For example, both workshops had a category named "Collaboration," and both had similarly named categories in "Rhetorical Theory and Lenses" and "Rhetoric and Theory." However, these similar category names sometimes belied differences in the underlying ideas. For example, the "Networked/Digital" category from Workshop 1 had a strong emphasis on UX research and design, while the "Digital Media" category from Workshop 2 emphasized multimodal and new media writing.

The personal writing ideas in the list of examples were primarily clustered together. In the first workshop, the category was named "Personal/Reflective Writing," and, in the second workshop, it was named "Personally meaningful writing/attitude." However, ideas 1 and 2 from the first workshop were placed in a research category alongside ideas related to research methods and citation styles.

After the categorization step was complete, participants prioritized ideas. During a design thinking process, this step is typically used to converge from the multiplicity of initial ideas to a list of concepts for prototyping and testing. Workshop participants were given five stickers and were asked to vote for the ideas that represented the most innovative or essential aspects of our program. Given the range of options, only a few ideas received more than one vote. In the first workshop, "The power of rhetoric" received three votes, and "Writing for the real world" received two votes. In the second workshop, "Writing has rules but does not have rules" received three votes, and three ideas each received two votes: "Writing belongs to the reader, not the author," "Know and value the difference between genres of writing," and "Be able to make connections between courses."

After prioritizing ideas, participants had a brief discussion about which ideas were most valued and why. Categories were then ranked based on the number of votes that their constituent ideas received.

Participants voted for several of the ideas in the list of examples from the workshop (see above), including ideas 1 and 3 from the first workshop and ideas 8, 11, and 13 from the second workshop. Since the prioritized ideas were placed in separate categories in the first workshop, each category was ranked lowly. However, the consolidation of the prioritized ideas in the second workshop made "Personally Meaningful Writing/Attitude" the highest-ranked category there.

Next, participants each selected a category with at least two votes and drafted a program outcome based on the language of any prioritized ideas. Unfortunately, this was an abbreviated exercise, and it often did not result in usable learning outcomes. For example, since the personal writing ideas were in relatively low-ranked categories in the first workshop, no one created outcomes related to those ideas. In the second workshop, the following outcome was created: "Graduates will work really hard on a meaningful project," which suggests that the participant drew mainly from idea 13 in the workshop ideas list. Unfortunately, this outcome draft did not represent the complexities of the ideas developed in the workshop, nor did it fulfill the goals of a PSLO. Institutional guides typically state that outcomes need to be directly related to the specific academic discipline, be measurable and observable, and focus on outcomes rather than inputs (Georgia Tech Office of Academic Effectiveness, n.d.). The above outcome statement could have related to any discipline, it identified an input or experience, and it was not measurable. This issue was the result of a design flaw in the workshops, which I will discuss in more detail below.

The workshops concluded with a collective debrief. Participants discussed the ideas that were most surprising in the workshop, the exercises that worked best, and the exercises they would change. Some people were surprised at the potential outcomes that received relatively limited attention and prioritization, including teamwork and reading. Others commented on how the workshop was a positive experience, saying that they felt it valued everyone's voice and gave everyone a chance to speak. One student also commented that she began to see more connections between the courses she had taken in our program after doing the workshop. The only consistent criticism of the workshops was related to the need for more time for several of the exercises.

■ Prototyping and Testing Program Student Learning Outcomes

Prototyping is the process of creating quick representations of products or services to test specific attributes or variables. In design thinking projects, prototypes are tested with stakeholders and then iterated upon, which leads to further testing. Leverenz (2014) also likened writing drafts to prototyping when those drafts had intentional variety and were produced with minimal initial cost or time investment.

Since the outcome drafts made during the workshops were incomplete, I collaborated with another faculty member to condense the ideas from the workshops into cohesive PSLOs and to test those PSLOs with other faculty members. First, we combined analogous categories between the two workshops, and then we combined similar ideas within each category while maintaining wording from the original ideas. Next, we eliminated ideas that did not align with realistic program outcomes. For example, we removed the ideas "Writing as brutalist design" and "Design as an attack on the senses" from the Visual Design category of Workshop 2. In both ideas, participants had expressed views of what our program should not be. As such, they provided insight into the kinds of visual design that participants did value. However, because we were working primarily from the wording of the ideas, there was no direct way to integrate either idea into a measurable outcome.

Once the data was more manageable, we wrote two to four outcome drafts for each category. Ideas that had been prioritized by workshop participants had to be present in at least one of the drafts. We also included other workshop ideas whenever possible. For example, Table 8.1 demonstrates how ideas from the personally meaningful writing categories were translated into initial outcome drafts.

Table 8.1. Translation of Source Ideas from Workshops to Outcome Drafts

Ideas from Workshops	Draft of Outcomes
"Had a rewarding, or even fun, writing experience" "Work really hard on a personally meaningful project" "Find some joy in rigor" "The time, energy, and focus it takes to craft pieces of effective writing"	Graduates will be able to pursue personally rewarding, rigorous writing projects that use time, energy, and focus to craft pieces of effective writing.
"Be okay with failing at writing" "Learning to be naked (becoming comfortable with critique)"	Graduates will appreciate the values of failure and criticism while defining good writing.

At the end of this process, the initial 247 ideas were narrowed into 90 outcome statements. At that point, we moved the outcomes into one (very long) list, which can be found in Appendix C. Because this list included a significant amount of repetition, we began to consolidate the outcome statements. First, we searched for repeated terminology in the outcomes. For example, 11 of the initial outcomes used the word "audience," and five of these outcomes focused explicitly on tailoring documents for a variety of audiences (see outcomes 9, 63, 64, 78, and 79 in Appendix C). Once we identified these repeated concepts, we combined the outcomes to address small differences between them and eliminated any leftover repetition. Then, we named the new outcome based on the identified concept

(e.g., audience analysis, collaborative writing, rhetorical theory, etc.), sought out any remaining outcomes in the list that shared that goal, and continued to combine outcomes and eliminate repetition. Once we had a more manageable number of outcomes, we began sharing drafts with colleagues for feedback and critique. Based on their feedback, we narrowed the list to 14 program outcomes. At that point, we considered the initial draft of the PSLOs to be complete. During this process, the drafts in Table 8.1 were combined into the following outcome: "Graduates will be able to produce rigorous, personally meaningful writing projects that demonstrate flexibility and a willingness to take creative risks."

The prototyping stage took about one month to get from our initial list to the final version of the outcomes. It was a messy process, and we could not include all the ideas from the workshops in the final outcomes. There was also a significant amount of individual interpretation and prioritization, similar to the kind that occurs in more traditional methods for developing PSLOs. I explore this difficulty and potential alternative approaches to the prototyping stage in the evaluation section.

▪ Implementing the Program Student Learning Outcomes

While an *implementation phase* is not always included in design thinking models, it is sometimes appended as a sixth step at the end of the d.school model. During the implementation phase, designers "put [their] vision into effect. [They] ensure that [their] solution is materialized and touches the lives of end users" (Gibbons, 2016). As with the other phases, implementation is often described as part of an ongoing cycle, wherein designers return to researching users' experiences even while they implement a solution.

The process of implementation for the PSLOs primarily involved moving the work from ad hoc workshops and collaborations back into official program committees. The first step was to re-form the defunct major track committee. For the new instantiation, the committee membership was kept small. The five members of the committee represented both tenure-track and non-tenure-track faculty as well as various research areas, including writing center studies, legal writing, cultural rhetorics, feminist rhetorics, and professional communication. It took only two meetings for the committee to revise the outcomes into a final version. During this work, the outcomes were organized into four categories, and two new outcomes were added: collaborative writing and community literacy. Other outcomes had only slight changes in wording. For example, the personally meaningful writing outcome had a few words added: "Graduates will be able to produce rigorous, personally meaningful writing projects that draw on their own experiences and demonstrate both flexibility and a willingness to take creative risks."

Once the committee agreed, the final 16 PSLOs were distributed to the full program faculty for review and discussion. The committee received no substantial feedback beyond the approval of the outcomes. The outcomes were then discussed

and voted on during the subsequent program meeting. They were unanimously accepted and became official PSLOs in Fall 2018. The final list of outcomes from this process can be found in Appendix D.

▪ Evaluation of the Design Thinking Approach

Throughout the design thinking process, 12 faculty, 16 students, and one staff member contributed to our PSLOs. Since participants built on the ideas of the various stakeholders throughout the process, the 16 final PSLOs represented a broad definition for the curriculum. However, this breadth also helped to create a more inclusive vision for our program, and several of the outcomes—such as the emphasis on personally meaningful writing and visual rhetoric—represented shared values that were not explicit in prior conversations about the program. This breadth would likely be problematic for many academic programs, which would necessitate a stronger control over idea prioritization in the workshops. However, in our program, this breadth helped to secure faculty support for the new PSLOs.

After establishing the outcomes, the major track committee used them to map our existing curriculum. We collected syllabi and assignment sheets for all our classes and analyzed the documents for evidence of attention to each of the outcome areas. Ultimately, this analysis identified several gaps in our core curriculum and electives. As a result, we designed two new courses: Visual Rhetorics, which addressed the visual design PSLO, and a senior capstone, which emphasized the personally meaningful writing and metacognition PSLOs. We also developed a plan to integrate community literacy projects into our core major track courses and ethical writing projects more broadly across the curriculum. For example, rhetorical theory instructors began to add projects working with local elementary schools, and the legal writing instructor added an ethics unit to the course.

The committee's next major task is developing an assessment plan for the outcomes. With 16 PSLOs, assessment will not be easy. However, since the major track is a sub-degree level program (i.e., it is a track within the pre-existing English major rather than a new, standalone major), we are not subject to institutional oversight on assessment, which gives us more flexibility in our plans. Currently, we plan to assess outcome categories one at a time and to collaborate with other program committees (e.g., the technical writing committee) on assessment. For example, the first year of assessment will focus on the "Writing Our Communities and Ourselves" outcome category. Over the coming months, the major track committee will collect examples of student work from core classes and will then do a traditional assessment reading process to understand how well our program is meeting these outcomes. At the same time, we do not plan to abandon design thinking in our move to assessment. Both design thinking and UX are inherently built on an iterative approach that emphasizes direct feedback from major stakeholders. For that reason, the committee is also planning on using some indirect assessment practices, including exploratory exit

interviews with graduating students, to supplement our more traditional assessment methods.

While design thinking was useful for building a shared vision for our program, it also introduced some new challenges. In the sub-sections that follow, I will discuss some of the problems we encountered in more detail, including the relative inefficiency of the approach, the difficulty of building buy-in with stakeholders, and the need for more open prototyping and testing methods.

◼ Managing Inefficiency in Design Thinking

Design thinking is not an efficient process. It takes time to explore stakeholder views, foster divergent thinking, and work collaboratively. Lisa Me15onçon offered a similar criticism of her experience in a project that sought to use design thinking:

> The [design thinking] framework lost its power in an attempt to just get through the steps. It was flattened because to truly implement design thinking requires lots of time, and that time costs money. Most organizations simply don't have the time or money to fully invest in it nor do they have someone who understands the idea enough to facilitate the conversations—at every stage—that are necessary. (Pope-Ruark, 2019, pp. 452-453)

The design thinking process we used to create our outcomes was not exempt from this criticism of inefficiency. I spent approximately 15-20 hours setting up, conducting, and analyzing the interviews. Then I spent another 20-25 hours coordinating, designing, and facilitating the workshops. Finally, revising these results into the various drafts of the outcomes and formalizing them through the major track committee took another 15 hours. All told, I spent over 60 hours on the project. And the other participants collectively spent an additional 50 hours doing interviews, workshops, and other meetings, though no other person spent more than 5-6 hours on the project.

So, from one perspective, this process might appear to be incredibly inefficient. A faculty member likely could have sat down and drafted a reasonable set of outcomes in a few hours. And even a traditional committee likely could have completed the work in fewer person-hours. On the other hand, there were aspects of the design thinking process that were relatively quick and easy. For example, we used templated language (e.g., "Graduates will be able to") and wording from the workshop ideas to rapidly draft our initial outcome statements. And committee approaches can sometimes become bogged down in intractable disagreements, while single-faculty approaches are likely to reify a limited view of the academic program. In short, there is no perfect approach, and the design thinking process offered us some advantages that could not be reduced solely to efficiency.

▪ Building Buy-In

Numerous practitioners have commented on the difficulty of building stakeholder and organizational buy-in for UX research and design (Anderson et al., 2010; Sharon, 2012). Their recommendations have included demonstrating a clear return on investment and integrating UX work into existing institutional structures and processes.

For the PSLO project, I sought to construct buy-in with four groups of stakeholders: program administration, program faculty, students, and industry representatives. Through a recursive and continual effort, I was able to secure buy-in from the first three groups, but not from industry representatives.

Securing agreement from the program administrator was a crucial first step. In retrospect, a combination of factors likely facilitated this step. First, I was already researching UX, so I framed this work as an extension of my existing expertise. Second, the major track committee was not actively making progress, which created space for alternative approaches. Finally, other faculty had also spoken positively about the presentations at CPTSC, thus lending additional credence to the design thinking process.

Building faculty buy-in was also essential because the program employs strong collective governance and because each phase required contributions of time and effort from other faculty members. Several of my methods here were also successful. First, I voluntarily carried the workload for the project. Given the amount of time and effort that design thinking requires, this may not be possible in all situations. Second, we referred to the ad hoc collaborations and workshops as a "workgroup," which allowed faculty participants to count their contributions toward their service requirements for the year. Finally, I kept the project processes and data transparent throughout by providing progress updates regularly at program meetings and sending summaries from each phase to program faculty.

Finally, encouraging student buy-in was also relatively straightforward. Students were generally happy to contribute to the program. They repeatedly thanked us for talking with them and for including them in the workshops. Beyond this, I designed the interviews and workshops to be relatively user-friendly. The interviews were short, and they focused on students' individual preferences and experiences. And students were positioned as equal contributors in the workshops, with their ideas being discussed openly, and without judgment, by all participants.

Despite the success of building buy-in with the above stakeholders, we failed to get contributions from industry representatives. There were likely two primary causes of this failure. First, there was no financial support for the project, and some form of compensation might have encouraged industry representatives to attend the workshops. Second, the diffuse program focus meant that we did not have clear connections to specific industries and local organizations. While technical communication programs have been able to achieve this sort of buy-in

through the creation of industry advisory boards (Söderlund et al., 2017; Spartz & Watts, 2016), we had not established this structure before the project. However, the noticeable lack of industry contributions has also helped us identify this as a potential area of growth for the program. We are currently working to build more sustained relationships through our internship and service-learning courses and are considering other ways to get industry and community feedback on our curriculum.

◼ Opening Up Prototyping and Testing

We adopted a traditional approach to creating PSLOs during the prototyping and testing phase. While the outcomes were based on the ideas and input of a broader group of stakeholders, the actual work of prototyping them still occurred in a closed faculty collaboration. While it was necessary to tame the vast amount of data from the workshops, we still might have undertaken this work in more open and participatory ways.

A different model could have focused the workshops more directly on the work of drafting full PSLOs. This either would have taken more time or a re-orientation of the second workshop, but it would have been possible. For example, the workshop could have split participants into two groups. Each group could then have selected eight to ten sticky notes to create their own list of PSLOs. This shorter list could then be prototyped by each team into an initial rough draft of outcomes and presented back to the other group to explore a possible range of emphases.

Design thinking also typically relies on visual or physical prototypes that can be actively tested with real stakeholders. Again, the limited testing in our process could have been improved by seeking feedback from students and industry or community representatives. Either as part of the workshops or as a follow-up, the initial PSLO lists could have been prototyped into physical artifacts such as flyers for the program or fictional graduate resumes. These artifacts could then be more easily tested with non-faculty stakeholders. As we continue to iterate on our program design in the coming years, we will be supplementing traditional assessment with these kinds of active testing methods to gain a broader perspective on our curriculum.

◼ A Heuristic Model for Programmatic Design Thinking

While the single PSLO project described here is not sufficient to offer a universal framework applying design thinking to curricular development, I would like to close by sketching a general model for curricular projects adapting a design thinking process.

First, a design thinking model should be a flexible heuristic rather than a linear process. Drawing on Ben Lauren's work, we might say that faculty and

administrators using design thinking "have to build a capacity for seeing design as a kind of detective work in which logistics and exigencies can change or be discovered in a nonlinear fashion" (Greenwood et al., 2019, p. 406). Therefore, the model for programmatic design thinking must first acknowledge the cyclical and iterative nature of the work. It has no inherent starting point and no definitive end. A program that specifically needs to design PSLOs could easily begin in ideation and loop back toward problem setting in later stages of the project. And testing and iteration could also become the focus for a program with existing outcomes. In other words, the phases can help us think of the kinds of tasks and work we need to do, but they do not provide us an exact roadmap of how to carry out that work.

Second, a design thinking model must also emphasize cycles of divergence and convergence. For example, in the PSLO project, the initial interviews offered an opportunity for divergence by including a range of experiences in and perspectives on the program. The information from interviews led to a convergence around the need for better program definitions. This led to another cycle where a diverse group of participants imagined a range of goals for our program and where those ideas were formalized into PSLOs and approved by program committees. These cycles of divergence and convergence create space for multiple perspectives and encourage the testing and iteration of specific solutions over time.

In building a heuristic model, I also simplified the process into four activities: listening, problem setting, ideating, and iterating, as shown in Figure 8.1. In this model, the implementation phase is incorporated into the process of iteration as a recognition that programmatic design projects do not have a clear start or end point.
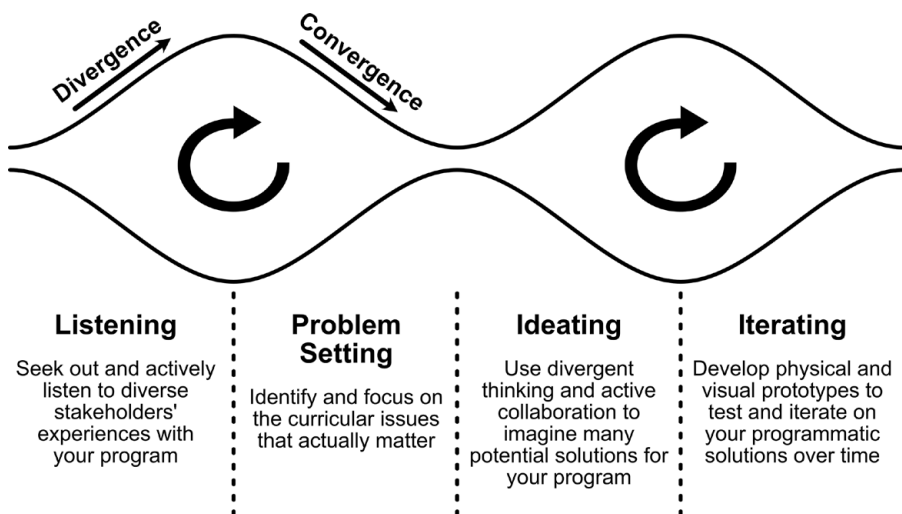

Listening	**Problem Setting**	**Ideating**	**Iterating**
Seek out and actively listen to diverse stakeholders' experiences with your program	Identify and focus on the curricular issues that actually matter	Use divergent thinking and active collaboration to imagine many potential solutions for your program	Develop physical and visual prototypes to test and iterate on your programmatic solutions over time

Figure 8.1. Heuristic for programmatic design thinking.

In the listening activity, faculty and administrators seek out and actively attend to diverse stakeholders' experiences with and perspectives on our academic programs. This activity is a recognition of our own positionality as well as the limits of our knowledge and perspectives. It helps us see and hear the experiences of others more clearly and it opens programmatic design to non-faculty participants.

The problem-setting activity highlights the need to identify and focus on curricular issues that matter to stakeholders. Sometimes, traditional models of curricular design seem like a teleological process of checking off the requisite institutional and bureaucratic boxes, and, as such, solutions might be assumed before the problem space is even explored. But, as Christian Bason and Robert Austin (2019) argued, "Design thinking is challenging because it involves something more fundamental than just managing change: It involves discovering what kind of change is needed" (p. 91). Ultimately, when faculty and administrators can make space for intentional problem setting, we can focus our efforts on the real problems that students (and other stakeholders) encounter in academic programs.

Ideation creates space for active participation and divergent thinking. Intentionally supporting divergent thinking can slow down the design process, but it also opens up new possibilities. As writing studies and technical communication continue to build stronger support for cultural and linguistic inclusivity across our academic programs (Gonzales & Baca, 2017), curricular design needs to create space for more voices. And active participatory and divergent thinking models can help to create this kind of space.

Finally, design thinking is, fundamentally, a process of iteration. It is a process that works best when solutions are modeled, tested, and changed over time. To accomplish this activity, faculty and administrators can experiment with physical and visual prototypes of the curriculum to encourage non-faculty stakeholders to actively engage in the design process.

In closing, and in the spirit of iteration, I would like to offer this heuristic model itself as an initial prototype in need of further testing, experimentation, and revision. Design thinking alone certainly is not a magic instrument for fixing curricular problems. But with appropriate attention and intention, it can operate as a flexible guide for finding new futures for our programs.

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■ Appendix A: Interview Questions

Faculty Interview Questions

1. What is your primary area of academic expertise?
2. What upper-division courses have you taught?
3. What was your favorite course to teach? Why?
4. What has been your best experience in teaching for our program?
5. Describe an ideal writing and rhetoric track student or graduate. What do they know? How do they think? What can they do?
6. What is a key experience for students in our program?
7. What is your least favorite part of our current program?
8. What is something we should add to our program?

Student Interview Questions

1. What upper-division courses have you taken?
2. What has been your favorite writing and rhetoric course?

3. How did you learn about our program? What attracted you to writing and rhetoric courses?
4. What are the most useful skills you learned in our courses? What are the most important concepts you learned in our courses?
5. What was your best experience in one of our courses?
6. What is something you still hope to learn in a Writing and Rhetoric course? Or if you already graduated, what is something you wish you had learned in a Writing and Rhetoric course?
7. What would you like to see changed in our courses?

■ Appendix B: Workshop Prompts

Brainwriting Prompts

- Who is the most effective writer that you know? What makes them effective?
- How has (good) writing changed over the past 10-20 years?
- What is something you wish you could improve in your own writing?
- What aspect of effective writing is most often overlooked?
- Explain the importance of rhetoric as if you were speaking to a friend who has not studied it.
- How do your values intersect with your understanding of effective writing and/or rhetoric?
- How have you seen writing and/or rhetoric being used in your local community?

Ideation Prompts Set 1: Skills

- **Faculty:** What should a student be able to do before they graduate from a Writing and Rhetoric Program? What skills are most important for a writing and rhetoric student? What skills do you see as most important to their future work?
- **Professionals:** What writing or communication skills would you list on a job ad for an entry-level position? What writing or communication skills are most important to your own work?
- **Students:** What can you do now that you could not do before taking writing and rhetoric classes? What do you still want to learn how to do?

Ideation Prompts Set 2: Knowledge and Values

- **Faculty:** What should a student know before they graduate from a Writing and Rhetoric Program? What are the core concepts you teach in your courses? What values do you hope graduates will hold? What are the key values of writing and rhetoric as a field?
- **Professionals:** What knowledge do you want new hires to have? What

concepts help you communicate effectively in professional settings? What are the key values of your profession or organization?

- **Students:** What are the most important concepts or ideas you have learned about in writing and rhetoric courses? What are the key values that teachers have talked about in class? What kind of values do you think are important for success?

Ideation Prompts Set 3: Experiences

- **Faculty:** What should a student have done before graduating from a writing and rhetoric major? What are key educational experiences for most students? What do you think are the best experiences for students in your classes?
- **Professionals:** What kinds of experiences do you want a new hire to have? What experiences have been essential to your own growth as a writer or communicator?
- **Students:** What have been your best experiences in our program so far? What do you still want to do before you graduate from our program?

Ideation Prompts Set 4: Anti-Definitions

- **Faculty:** What is something students should not learn in our program?

- **Professionals:** What would make a recent graduate a bad fit for a writing position?
- **Students:** What is something you do not want to learn more about in our program?
- **Wildcards:** What is the worst possible focus for our program? What is the opposite of a Writing and Rhetoric Program?

■ Appendix C: Initial List of Outcome Statements

1. Graduates will learn the complexities and power of rhetoric.
2. Graduates will be able to pursue personally rewarding, rigorous writing projects that use time, energy, and focus to craft pieces of effective writing.
3. Graduates will appreciate the values of failure and criticism while defining good writing.
4. Graduates will take creative risks within the writing process.
5. Graduates will value writing as products of considerable, process-driven efforts affected by time and deadlines.
6. Graduates will conduct constant writing assignments.
7. Graduates will adapt their style to their rhetorical situation, purpose, and audience, keeping in mind that writing belongs to the reader, not the author.
8. Graduates will think usefully about the reader's experience (of both the

text and the author as communicator).

9. Graduates will analyze the effects a text may have on different audiences.
10. Graduates will examine interdisciplinary studies in writing, including the differences and nuances between disciplines' genres of writing.
11. Graduates will collaborate in teams on interdisciplinary writing situations to negotiate different writing styles.
12. Graduates will evaluate peer writing to become reflective practitioners of their own writing.
13. Graduates will practice divergent and convergent thinking.
14. Graduates will understand how writing is as important a skill as math and science.
15. Graduates will understand how pedagogical and theoretical strategies help with understanding how to write.
16. Graduates will take classes from multiple professors and know their professors' names.
17. Graduates will be able to make connections between courses and understand/identify outcomes from different types of writing classes.
18. Graduates will read documents to evaluate strengths and weaknesses, thinking critically to synthesize ideas in context and making connections across contexts and cultures.
19. Graduates will practice analyzing structures in texts for the purpose of identifying how these structures value and save readers' time.
20. Graduates will be able to conduct primary and secondary research by interacting with and managing the breadth, depth, and historical communion of the interrelated nature of sources.
21. Graduates will effectively analyze sources for credibility/biases, accuracy, depth/loaded writing and sophistication of content focusing clearly enough to identify nuances in rhetoric, tone, and argument.
22. Graduates will accurately, professionally cite sources through strong, comprehensive summary, paraphrase, and quotes of both traditional and alternative, modern research sources.
23. Graduates will be able to clearly delineate and state objective source material from subjective opinions in their writing practices.
24. Graduates will understand the complexities of situational plagiarism.
25. Graduates will be exposed to a range of foundational and modern writing theory, rhetorical theory, and interdisciplinary theory, and critical thinking.
26. Graduates will value rhetoric at work in everything and everywhere, identifying the complexities of rhetoric as power and communication.
27. Graduates will understand the purposes, rhetorical strategies and audiences for mediums and messages.
28. Graduates can establish proper mediums (websites, podcasts, apps) and compose texts for messages.

29. Graduates will write for public audiences and engage audiences through public speaking/public reading/performance.
30. Graduates will write for the assessment of someone other than the teacher.
31. Graduates will create writing projects requiring effective expansion/editing practices.
32. Graduates will write engaging introductions.
33. Graduates will have the ability to self-regulate strategies for time management and "how to get through your paper in a single sitting and a single draft."
34. Graduates will be able to read a book and create prompts for response.
35. Graduates will have a clear understanding of careers and graduate programs available for their degrees.
36. Graduates will engage in internships.
37. Graduates will work at a writing center or tutor peers.
38. Graduates will articulate (qualify and quantify) their writing skills as professional skills.
39. Graduates will know what types of jobs are suitable for their expertise and how to sell their skills through branding.
40. Graduates will have experience with practical, tangible genres of professional writing like resumes and CVs.
41. Graduates will recognize, examine, and appreciate gaps in their own education.
42. Graduates will conduct a thorough, accurate self-review.
43. Graduates will be able to recognize, use, and proofread/edit standard and non-standard English practices, the cultural and political values associated with them, and the historical constructs of power within them.
44. Graduates will understand the value of non-standard Englishes and the power dynamics associated with these values.
45. Graduates will understand that there are no rules, only conventions.
46. Graduates will appreciate diversity of thought and style in writing through cultural examinations of texts.
47. Graduates will understand the production of rhetoric through appropriate messages, methods, and mediums (social media/press releases/popular writing/personal writing/ public writing/academic writing).
48. Graduates will have engaged in rewarding and engaging writing experiences.
49. Graduates will develop a personal connection to the power and complexity of rhetorical practice.
50. Graduates will demonstrate comfort with having their writing critiqued. They will develop effective ways of managing and responding to critique.
51. Graduates will show a willingness to take risks in writing.
52. Graduates will write effectively for a range of real audiences and tasks

      outside of academia.

53. Graduates will market and promote their skills and experience effectively.
54. Graduates will use rhetorical concepts and strategies to craft powerful and effective communication.
55. Graduates will recognize how rhetorical concepts and strategies are being used in a range of communications.
56. Graduates will use effective strategies for communicating across cultures.
57. Graduates will value and demonstrate respect for others' opinions.
58. Graduates will employ communication strategies that demonstrate empathy for others.
59. Graduates will employ effective strategies for managing projects and for working collaboratively with others, both in person and online.
60. Graduates will have significant experience with working collaboratively in teams and groups.
61. Graduates will know how to employ the fundamentals of visual design to craft effective page layouts and integrate visuals into a variety of texts.
62. Graduates will be able to create effective visual displays of data and use visual rhetoric effectively to achieve their goals.
63. Graduates will be able to analyze various audiences and tailor writing to their needs and preferences.
64. Graduates will be able to effectively represent themselves in writing for a variety of audiences.
65. Graduates will know how to use a range of digital writing tools.
66. Graduates will be able to write effectively for a range of networked and digital environments.
67. Graduates will have engaged in extended research projects tied to individual goals and values.
68. Graduates will know how to conduct research responsibly and ethically.
69. Graduates will know a range of research methods appropriate both for academic and professional settings.
70. Graduates will have experience editing others' work.
71. Graduates will know how to carefully and comprehensively edit work.
72. Graduates will have significant experience with presenting information orally.
73. Graduates will have engaged in personal writing.
74. Graduates will understand the ethical implications of writing.
75. Graduates will value both their and others' writing styles.
76. Graduates will know how to bring all their resources to writing practice, including multilingual and multicultural resources.
77. Graduates will have a flexible knowledge of genre conventions and know how to analyze and adapt newly encountered genres.
78. Graduates will be able to adapt their writing to a variety of contexts and audiences.

79. Graduates will know how to moderate their tone to match a range of situations and audiences.
80. Graduates will have a deep understanding of community and engagement.
81. Graduates will be better communicators after collaborating with peers in writing projects.
82. Graduates will work very hard on a meaningful project.
83. Graduates will know and value various genres of writing, types of writing, and disciplines of writing.
84. Graduates will be able to analyze their rhetorical situation and adapt their writing accordingly.
85. Graduates will be able to identify and effectively use standard and non-standard Englishes.
86. Graduates will be able to articulate how their writing courses relate to each other (and the logic of the curriculum).
87. Graduates will be able to value/appreciate the diversity of thoughts, genres, and styles.
88. Graduates will learn to communicate in ways that are not just textual. They should be encouraged to use technology and new media to gain these skills. They should understand that their content is not the only important part of their communication but that the context in which it is told and the medium that is used hold rhetorical value.
89. Graduates will be able to write for a variety of real-world audiences and purposes using a variety of mediums such as emails, memos, proposals, resumes.
90. Graduates will engage with and understand the power of rhetoric, alternative and mainstream rhetorical histories, theories and practices, and apply these analytical lenses and approaches to communicate effectively.

Appendix D: Final List of Program Student Learning Outcomes

Developing Rhetorical Awareness

- **Rhetoric and Composition Theory:** Graduates will be able to explain the value, power, and complexity of theoretical perspectives, including classical, alternative, feminist, multilingual, and/or multicultural rhetorics and composition. They will be able to compose rhetorically-effective communications.
- **Textual Analysis:** Graduates will be able to analyze a variety of everyday and academic texts for their strengths and weaknesses according to rhetorical, contextual, and cultural parameters.
- **Audience:** Graduates will be able to analyze various audiences' needs and adapt writing to the expectations of those audiences.

- **Ethics:** Graduates will be able to analyze the ethical implications of writing situations and practices. They will know how to take appropriate ethical action when faced with complex communication situations.

Building a Writing Process for Academic and Nonacademic Contexts

- **Writing Process:** Graduates will be able to employ a flexible writing process. They will be able to invent rhetorically appropriate content; provide and incorporate constructive feedback; proofread, revise, and edit their own and others' work; and address stylistic preferences of various audiences.
- **Research:** Graduates will be able to conduct primary and secondary research. They will be able to analyze sources for credibility, biases, accuracy, depth, and sophistication. And they will be able to professionally integrate research and sources in ways that support their project's goals.
- **Collaborative Writing:** Graduates will be able to work on complex projects with team members. They will be able to employ a range of strategies for managing projects and negotiating team dynamics.

Enhancing Workplace Writing Practices

- **Professional Writing:** Graduates will be able to employ the genres and qualities typical to professional audiences and situations. They will be able to articulate and market their writing skills and to position themselves for their desired career or graduate program.
- **Visual Design:** Graduates will be able to employ the fundamentals of visual design to display data, to craft page layouts, and to integrate visuals into a variety of texts.
- **Digital Media:** Graduates will be able to use digital media, select rhetorically fit mediums, and design strategies appropriate to those mediums.
- **Oral Presentation:** Graduates will be able to present information orally both individually and in teams for a range of situations, topics, and audiences. They will also be able to craft visual and/or textual supports for their presentations.

Writing our Communities and Ourselves

- **Personally Meaningful Writing:** Graduates will be able to produce rigorous, personally meaningful writing projects that draw on their own experiences and demonstrate both flexibility and a willingness to take creative risks.
- **Community Literacy:** Graduates will be able to develop best practices for participating in community writing and service-learning projects in and beyond the South Florida community that work toward community engagement and social action.
- **Cross-Cultural Communication:** Graduates will demonstrate respect for others' views. They will be able to craft communications for members of other cultures and to bring their own resources to writing practices, in-

cluding their multilingual and multicultural resources. Graduates will be able to work within and across language standards and conventions and the cultural and political values associated with them.

- **Interdisciplinarity:** Graduates will be able to write for other disciplines. They will be able to research and adapt to the conventions, goals, and constraints of other disciplines.
- **Metacognition:** Graduates will be able to self-identify gaps in their education and knowledge and create plans to address these gaps when necessary.