

# Empowering Stakeholders in a Cohort of Interdisciplinary Writing Minors: Flexibility, Agency, Reciprocity, and Accountability

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**Abstract.** Universities and employers make clear that STEM students need to learn effective writing and communication strategies, and Technical/Professional Communication (TPC) programs are uniquely poised to facilitate this goal. However, in the absence of formal university Writing Across the Curriculum/Writing in the Disciplines (WAC/WID) structures, TPC faculty should be proactive in creating collaborative writing programs that can both serve their STEM students, and offer writing faculty opportunities to collaborate with a range of stakeholders. In this article, we draw from stakeholder theory to offer a heuristic and framework for analyzing stakeholders in an interdisciplinary writing program. We also draw from our newly developed interdisciplinary writing minors to model this framework and to define how it can help to ensure the flexibility, agency, reciprocity, and accountability that we argue are crucial to sustainable writing programs.

**Keywords:** Interdisciplinary, Stakeholders, Framework, Minors, Flexibility, Agency

Research has suggested that 80% of employers believe colleges/students should focus more on written communication (Hart Research Associates, 2013). For students in STEM fields, meeting this need requires providing students with broad rhetorical

training as well as instruction in the writing practices of their specific discipline(s). Accordingly, many institutions have adopted formal infrastructures to facilitate writing across the curriculum (WAC) and writing in the disciplines (WID). However, what happens when no formal infrastructure exists to support WAC/WID?

From our perspective, technical and professional communication (TPC) programs, especially those without formal university support, need to be proactive in creating collaborative writing programs that can both serve their STEM students and offer writing faculty opportunities to collaborate with a range of stakeholders. We also believe that the most successful and sustainable multi-disciplinary programs need to exhibit four key characteristics: flexibility, agency, reciprocity, and accountability. At the University of Nevada, Las Vegas (UNLV), we considered these characteristics as we finalized three new interdisciplinary minors—Science Writing, Technical Writing, and Professional Writing—in collaboration with colleagues in the Colleges of Science, Liberal Arts, Engineering, and Allied Health.

### **Grounding Our Program Design**

Our approach to designing and developing our cohort of interdisciplinary writing minors grew from our particular institutional context, which we describe in the following section. However, in building successful and sustainable multi-disciplinary programs, all colleges and universities can benefit from the four key characteristics: flexibility, agency, reciprocity, and accountability. Inspired by the work of Meredith Johnson, W. Michelle Simmons, and Patricia Sullivan (2017), these four characteristics guide our inquiry and ground our thinking for our “programmatic work.” Moreover, they represent a vocabulary for articulating our goals. Although we acknowledge that these terms have a long, rich, and (sometimes) varied history in technical communication (TC) research, space requires that we define them simply within the context of our multi-layered, multi-disciplinary program.

Flexibility in our program allows us to adapt to the goals and needs of our stakeholders by designing a curriculum that allows courses from different majors to fulfill the requirements or by creating recruiting materials that convince administrators in disparate disciplines such as engineering, science, nursing, and the liberal arts to see value in and encourage students to pursue our writing minors. Avoiding program rigidity provides opportunities for input and development from all stakeholders, thereby giving them a voice and a sense of agency in contributing to the success of these minors. In our experience, too many programs are unwilling (or unable) to adapt their writing

programs to the needs of other programs. In contrast, we want our program's stakeholders to contribute so everyone benefits from those contributions. This flexibility and resulting reciprocity may not be fully *quid pro quo*, but we believe that we can find different ways for stakeholders to engage and fundamentally help the program grow. Their contributions means that stakeholders must be accountable to establish certain expectations for the program (and each other). Thereby, the program works to apply measures that ensure those reciprocal expectations, as well as expectations for program quality, are met, whether those measures are workshops for instructors, student and faculty reflections, and/or program-wide and course-driven assessment strategies. These four characteristics influenced our thinking when we designed our curriculum, created recruiting materials, collaborated with writing and disciplinary faculty, and planned our short- and long-term assessment practices.

For a writing program to display these characteristics, the WPA must effectively engage stakeholders, and the design of our interdisciplinary minors commits to meeting stakeholder needs to ensure sustainable partnerships. In this manuscript, we provide a brief overview of our multidisciplinary program that offers training in specific rhetorical strategies to emphasize audience, translation, persuasion, and disciplinary discourse practices, paired with discipline-specific courses that help students apply rhetorical training to situations they will encounter as professionals. We then draw on stakeholder theory to construct an analytical framework that situates stakeholders, analyzes their goals and needs, and articulates the complex relationships that grow organically in a multi-layered and multi-disciplinary program. Finally, we provide an abbreviated sample analysis from our program.

Our primary goal is to model the flexibility necessary for similar programs in different academic environments, along with strategies for fostering "a shared social value of writing" (Arduser, 2018, p. 20) among stakeholders. Although our program design starts with a strong collaborative foundation (Harding et al., 2020), we acknowledge that moving forward does not require full agreement or perfect harmony; as long as all stakeholders have a voice, an interdisciplinary writing program can be sustainable and flourish over time.

### **Describing the Design of Our Cohort of Interdisciplinary Writing Minors**

The interdisciplinary writing minors developed at UNLV serve students in STEM disciplines who wish to further develop writing skills for success in coursework and the workplace as well as English majors

who desire an applied avenue for their interests in rhetoric and writing. Ultimately, we proposed three separate interdisciplinary writing minors: technical writing, science writing, and professional writing. At present, as we followed the collaborative development process described in this article, these minors are poised for final approval process through the university system's curricular mechanism, with an anticipated date of formal activation in Fall 2023. After being approved, these programs will be housed formally in the UNLV Office of the Provost, and their administration (program coordinator and administrative support) will rotate between collaborating departments. Although we initially envisioned these minors as tailored to particular disciplinary cohorts—considering, for instance, engineers as an ideal audience for the technical-writing minor and life science students as particularly suited to the science-writing minor—we also wanted to ensure that the minors would be flexible enough to welcome students across major disciplines.

In line with guidance for developing programmatic outcomes in TPC programs from Geoffrey Clegg et al. (2021), the design and structure of our minors and the courses they encompass respond to both broader disciplinary trends in technical, science, and professional writing as well as the unique local and institutional conditions in which our program operates. These conditions offer both unique opportunities and constraints that guided us in thinking about the minor structure. At our institution, the English department and the broader BA degree historically have been dominated by a literature-oriented approach. In some ways, this relegated rhetoric and writing courses generally, and TPC courses specifically, as electives for majors, as service courses for other disciplines like engineering and business, and as components in potential concentrations that students could add to their majors. Furthermore, this meant that our faculty and courses had long considered and accounted for the myriad external audiences (students and administrators beyond English students) who might benefit from explicit training in rhetoric and writing. As a result, one unique strength that we considered when designing these minors was these established courses in professional writing and technical writing. This extant structure ensured that the faculty and approved courses required from the writing program were already supported and well suited to meeting the needs of interdisciplinary audiences. Similarly, UNLV's policy permitting students to "double-dip" in counting courses—i.e., allowing students to count a course toward both major requirements and a separate minor—allowed us to build a minor structure that would not impede students' progression toward graduation. Given the emphasis

at most institutions, including UNLV, on retention, progression, and graduation, course credits and minor requirements were an early pragmatic concern.

Structurally, each minor requires 18 credit hours. These hours include four courses, or twelve credits, from those offered in the English department and two courses, or six credits, from collaborating disciplinary departments outside English. The former hours include courses that offer training in specific rhetorical strategies, attending to issues of audience, translation, persuasion, and disciplinary discourse practices. The latter hours include courses designated to writing and/or disciplinary literacy emphases—i.e., the “ways of knowing” that characterize a field—offering discipline-specific, authentic writing tasks that help students apply rhetorical training to situations that they may encounter as professionals in their specific disciplinary spaces. Each collaborating program is responsible for determining (with support from writing faculty) which courses to designate as fulfilling the disciplinary minor writing requirements. This affords each department agency in determining both the disciplinary content, genres, and discourses to emphasize as well as the ability to proactively address pragmatic issues like prerequisites and curricular bottlenecks.

All courses are offered cyclically, ensuring that students can complete the minor in a 2-year period, and the courses approved to fulfill the requirements of each minor also dovetail with courses counting toward requirements or electives from other majors. Again, this ensures that the pursuit of a minor, even late in a students’ coursework, will not impede their progress toward graduation and may encourage students to consider the minor upon realizing they have already taken courses that will count toward that minor.

Overall, the interdisciplinary writing minors are intended to provide students with the knowledge, skills, and practice necessary for effective writing in particular professional and disciplinary contexts. In all minors, students practice pure and applied qualitative and quantitative research in multiple genres and for both lay and expert audiences. Courses and activities are designed to encourage both durable conceptual understanding and attention to students’ development as writers fluent in the discourse practices of their disciplinary spaces.

For each minor, students are required to take the designated foundational course from the English department (e.g., Foundations in Professional Writing; Foundations in Technical Writing; Foundations in Science Writing), and then select from other writing and rhetoric courses such as Document Design, Visual Rhetoric, Electronic Documents and Publications, Writing Grants & Proposals, Writing &

Presenting Academic Research, Technical Editing, and Advanced Professional Communication. The curriculum for each of these writing and rhetoric courses are flexible enough to allow students to bring different disciplinary emphases to the courses' required work. Courses drawn from outside departments (again, determined by the collaborating department) range from introductory surveys with writing components to upper-division, writing-intensive courses as well as major capstone courses in which students produce a polished written product.

### **Building a Framework for Analyzing Stakeholders in Writing Programs**

Although we have established a general curricular and programmatic description of our interdisciplinary minors, we believe that creating a long-term collaborative and sustainable writing program requires that the program exhibit those four characteristics: flexibility, agency, reciprocity, and accountability. To do this, a WPA must conduct an in-depth examination of potential stakeholders. Again, an effective interdisciplinary writing program is untenable without the buy-in of (and collaboration with) stakeholders from across campus; and it will not flourish without an understanding of stakeholders: who they are, what their goals and needs from the program are, and how these complex relationships grow organically, especially in a multi-layered and multi-disciplinary program.

To aid in this analysis, we created a framework using features from stakeholder theory for analyzing potential stakeholders in a writing program. This framework allows us to examine and articulate stakeholder relationships as programmatic relationships and then to develop sustainable pathways to promote flexibility, agency, reciprocity, and accountability in our program. This framework ideally provides each stakeholder with a sense of commitment and co-ownership to an interdisciplinary writing minor.

Stakeholder theory, as a direct ethical response to shareholder theory, posits that a business cannot achieve true and long-term prosperity if it fails to consider the needs of all parties, or stakeholders, with a vested interest in the success of the organization (as starting points, see Freeman, 2008; Freeman, Harrison, & Wicks, 2007). The vast majority of stakeholder-theory research occurs in business and management fields, but recent applications have started to appear in some areas of technical and scientific communication. Even though academia does not need to account for shareholders in the same ways that businesses

do, the ethical considerations that arise from the competing interests of stakeholders in a writing program are equally valid. In considering the application of this theory to higher education, Jim Nugent and Laurence Jose (2017) pointed out that, although "... a few commentators have performed a sort of stakeholder analysis of academic programs..., these analyses do not go very far beyond basic stakeholder identification" (p. 19). Our goal in stakeholder analysis, therefore, is to provide the tools for WPAs to go beyond basic stakeholder identification and identify the value of those stakeholders and establish collaborative relationships with them.

To build a framework for analyzing stakeholders in a writing program, we begin with methods introduced by R. Edward Freeman, Robert Phillips, and Rajendra Sisodia (2020), who argued that the key is "'knowing how'" to engage stakeholders and create value for them, rather than the technical 'knowing that' such and such is the case for all firms for all times for all problems for all configurations of stakeholders" (p. 217). Acknowledging the contextual nature of stakeholder and programmatic relationships is an important distinction for us and means that an analytical framework must account for previous histories, current situations, and future promises at the local level. Effective writing-program development is not one-size-fits-all but instead should grow organically out of the local environment, which means that our analytical framework must discern the necessary rhetorical insights to place stakeholder needs and goals in the context of the program.

### **Initial Steps for Building a Stakeholder Analysis Framework**

To offer concrete steps for producing a more comprehensive stakeholder analysis, we start with three key themes identified by Fran Ackermann and Colin Eden (2011):

1. Identifying who the stakeholders really are in the specific situation (rather than relying on generic stakeholder lists);
2. Exploring the impact of stakeholder dynamics; and
3. Developing stakeholder management strategies. (p. 180)

A key tenet of stakeholder analysis is to go beyond simple identification, so these themes represent the important information that an analytical framework must generate for a WPA.

Because "organizations are obligated to take into account the voices and viewpoints of those parties poised to affect (or be affected by) the organization's actions" (Nugent & Jose, 2017, p. 19), the WPA must first list all potential stakeholders. For our own process of stakeholder identification, we began by brainstorming a robust list, with a belief that "who stakeholders are is related to the multifarious nature



of the demands they can make on the organization" (Ackermann & Eden, 2011, p. 179). A more robust list, we believe, will lead to a more comprehensive understanding of the various relationships that stakeholders have with our program.

In going beyond simple identification, we realized and knew we needed to address that some stakeholders have legitimate claims on a writing program, some have urgent needs at different times, and some have power over program operations and resources (Carnegie & Crane, 2019). As Donizete Beck and Jose Storopoli (2021) pointed out, "These attributes matter for managers to classify and prioritize some stakeholders taking into account their context, and then, making better decisions on resources allocation and time spending" (p. 2). Whereas some stakeholders may have more legitimate claims, more urgent needs, and more power over operations and resources of the program, we also determined that the situation was illogical when one group of stakeholders has salience at the exclusion of other stakeholders. As R. Edward Freeman (2010) stated, "If you take away the support of any stakeholder you simply do not have a viable business" (p. 7). Thus, we felt compelled to account for the needs of *all* stakeholders, so that they are treated equally, given a voice, and provided a legitimate outlet for engaging.

Although the focus of the framework is to analyze stakeholders, we emphasize that this analysis is always in the context of a writing program, which includes both human and non-human influences (Luoma-aho & Paloviita, 2010), and is always per what the program offers the stakeholders and what the stakeholders offer the program. Without understanding that these goals are always embedded in the context of the writing program, the WPA cannot make effective choices for program success, now and in the future. WPAs must manage stakeholders effectively to achieve program success. In managing, the key to go from analysis to action is the "binding idea" (Freeman, 2010, p. 7) whereby the WPA constructs a "jointness" of interests among and between stakeholders to establish the means for long-term strategic relationships to the program. It is in these long-term strategic relationships that writing programs can "create the best possible outcome for as many salient stakeholders as possible" (Nugent & Jose, 2017, p. 23). For the information to fit seamlessly within the larger writing program context, the WPA conducting the analysis should keep in mind three interconnected ideas underscored by Freeman (2010):

1. No stakeholder stands alone in the process of value creation.
2. The primary responsibility of the executive is to create as much value as possible for stakeholders.



3. Stakeholders have names and faces and children. (pp. 8–9)

Acknowledging that stakeholders are an active part of the larger context of a writing program means that value creation is never isolated and never acontextual, because what benefits one group of stakeholders could easily harm or exclude a different group of stakeholders. Accordingly, our stakeholder analysis framework must account for the ethical responsibility of WPAs to all stakeholders in the program.

Our stakeholder analysis framework takes its cue from Elina Jaakola's (2020) "model," from which we build a framework that explains and predicts relationships, identifies new and possible long-term connections between stakeholders and the writing program, introduces the value of new and previous relationships, and considers and predicts why a sequence of events might lead to a particular outcome (p. 24).

**Our Stakeholder Analysis Framework: Going Beyond a Simple Identification**

Our stakeholder analysis framework begins with a set of heuristic questions that generates key information about each of the stakeholders connected with a writing program. As a starting point, we found this heuristic to be the most adaptable for other writing programs and other contexts. The heuristic questions include the following:

- What is the name the stakeholder? (Offer a brief definition; if the stakeholder involves a group or organization, list a primary contact.)
- What is the academic role on campus of the stakeholder? In this role, what are the stakeholder's short- and long-term goals? Can the goals of the stakeholder be met (or helped) by a writing program?
- Overall (beyond the role in the previous question), what are the short- and long-term needs of this stakeholder? Can they be met (or helped) specifically by a writing program? In the short-term? In the long-term?
- How would the stakeholder define success in their work? How would they define success on a daily basis? Can the success of the stakeholder be improved (or helped) by a writing program?
- What value does a writing program offer this stakeholder?
- What value can the stakeholder offer to a writing program?
- What are the specific features of a writing program important to this stakeholder?
- What power might this stakeholder have over a writing program's operations or resources? What power might this stakeholder have over a particular feature (or aspect) of the writing program?

- What claims might this stakeholder have on a writing program? What claims might this stakeholder have on particular features of the writing program?
- What might the stakeholder gain from the success of a writing program? In the short-term? In the long-term?
- What relationships might the stakeholder have with other writing program stakeholders? How might those relationships affect the success of the writing program?

Using the heuristic and responding to each question for each stakeholder to gather initial key information, the WPA then puts that information in the context of the writing program. To do this, we created a relational table as a next step to map out the ways that each of the stakeholders interact with key features of the program and with each other.

Table 1 offers a simple  $4 \times 4$  matrix as a template. On the surface, a table like this can show simple connections between a stakeholder and key features of the program, as well as potential relationships between and among the other stakeholders. A relational table like this may appear repetitive; however, this design allows the WPA to look at issues important to program development from different angles. The relationships become more apparent when reviewing an actual program table. Our current spreadsheet, shown in Table 2, is  $19 \times 19$  with 11 stakeholders and eight key program features: 1) curriculum, 2) writing expectations, 3) course development, 4) course assessment, 5) program assessment, 6) faculty development, 7) student input, and 8) career development).

**Table 1. Relational table template**

	<b>Program Feature 1</b>	<b>Program Feature 2</b>	<b>Stakeholder 1</b>	<b>Stakeholder 2</b>
<b>Program Feature 1</b>				
<b>Program Feature 2</b>				
<b>Stakeholder 1</b>				
<b>Stakeholder 2</b>				

Table 2. Sample Program Spreadsheet

	curriculum	writing expectations	course development	course assessment	program assessment	faculty development	student input	career development	writing faculty	disciplinary faculty	disciplinary major students	disciplinary administration	disciplinary advising center	writing and rhetoric concentration students	English major students	English department	COLA administration	COLA advising center	writing center
curriculum																			
writing expectations																			
course development																			
course assessment																			
program assessment																			
faculty development																			
student input																			
career development																			
writing faculty																			
disciplinary faculty																			
disciplinary major students																			
disciplinary administration																			
disciplinary advising center																			
writing and rhetoric concentration students																			
English major students																			
English department																			
COLA administration																			
COLA advising center																			
writing center																			

A spreadsheet like these (Tables 1 and 2) can provide more complex insights, allowing WPAs to see where key components of the program align with specific stakeholders and where stakeholders may have common goals or needs, based on their relationships with other stakeholders. More importantly, this spreadsheet allows WPAs to also see at a glance where competing interests might arise in specific areas of the program. (We offer an example in Table 3 that provides more context.)

Effectively engaging stakeholders to model the four key program characteristics of flexibility, agency, reciprocity, and accountability is the central goal for this analytical process. In the next two sections, we offer a few brief examples of our own stakeholder analysis using this framework.

Analyzing Stakeholders in a Cohort of Interdisciplinary Writing Minors

We show how our stakeholder analysis both articulates programmatic relationships and informs our understanding of how the design of our cohort of interdisciplinary writing minors can best meet stakeholder needs. The analysis also informs us how to develop programmatic pathways that allow each stakeholder to gain a sense of co-ownership and commitment to an interdisciplinary writing minor and ensure sustainable partnerships.

We have divided the framework into two parts:  
**Framework Part I: Individual Stakeholder Analysis**  
Our stakeholder analysis begins with a heuristic that encourages

movement beyond simple identification of stakeholders to consider their interconnected roles in the process of value creation (as illustrated in Table 2). In particular, we posit this process as a way to conceptualize how our interdisciplinary writing minors (and, by extension, those engaged in WPA work more broadly) can foster sustainable and flexible relationships and structures to benefit all stakeholders.

In this section, we offer an example of this analysis in the context of the stakeholders identified in our process of minor development. These included the following broad categories, which are specific to UNLV but are likely representative of the cohorts of stakeholders with whom many WPAs engage:

- Writing faculty
- Disciplinary faculty
- Disciplinary major students
- Disciplinary administration
- Disciplinary advising centers
- Writing and rhetoric concentration students
- English major students
- English department
- College of Liberal Arts (COLA) administration
- COLA advising center
- Writing center

We want to emphasize that we do not advocate for “lumping together” these groups in an analysis—indeed, understanding the unique circumstances of each (and the variety that can exist even within a particular group) is central to the process that we propose. However, for the purposes of modeling the heuristic, we have selected specific stakeholders within the broader “umbrella” categories of students, faculty, administration, and student support. In particular, we offer as examples our analysis of disciplinary major students, writing faculty, disciplinary administration, and the COLA advising center. As our analysis indicates, a WPA cannot apply this heuristic for any one group without considering how that group is situated within the broader ecology of the community, the university, and the writing program. However, as we demonstrate in the next section, this initial analysis enables us to visualize the ecology as a whole, including key spaces of both mutual-ity and tension. Thus, we provide analyses of four potential stakeholders: biology students, writing faculty, the dean of engineering, and the campus advising center.

### **Sample Analysis: Biology Students as Stakeholders**

To provide an example of application, we consider the groups representing student stakeholders and using as an example our heuristic

applied in the context of disciplinary major students—i.e., students outside the English major who are pursuing our interdisciplinary-writing minor as a way to strengthen and augment their writing skills in the context of their own disciplinary communities. Although some student concerns are universal—that is, all students are concerned with fulfilling the requirements of their majors, progressing to graduation, and developing the skills and knowledge to enter and succeed in the workforce—other concerns and characteristics within this broad category will vary based on students' specific affiliations. Even within the limited category of disciplinary students, given the range of our interdisciplinary minors (spanning students across majors and colleges), we cannot assume, for instance, that the analysis will be the same for students majoring in engineering (or even a particular sub-field of engineering) as it will be for students majoring in biology. That said, for the purposes of modeling, we will use the biology major.

At UNLV, biology majors are housed within the School of Life Sciences in the College of Sciences. Students with a BS in Biological Sciences can concentrate in one of five areas: cell and molecular biology; ecology and evolutionary biology; integrative physiology; microbiology; and pre-professional studies; each area requires 76–78 credit hours with no more than 9 credits of general electives available in any degree plan. Logistically, students in the biology major are limited, beyond the general education requirements that exist external to their major, in their ability to take significant coursework outside their college. Because of these limitations and the prerequisite courses in place for their major coursework, students who are biology majors are limited in their timeline, such that failing to successfully complete a particular course early in their course load could delay their progress toward graduation.

Despite the heavy disciplinary requirements, however, success in many courses—including the early survey—require students to engage in scientific writing, including the Claim, Evidence, Reasoning (CER) model (McNeill & Krajcik, 2011), for which many students are not prepared. Likewise, students' ability to translate their disciplinary expertise to lay audiences—explaining the value of their degree to a potential employer or communicating complex scientific concepts and findings to the public—are skills that students understand as necessary to professional success yet that are not necessarily addressed in their major courses. Thus, the interdisciplinary science writing minor can help biology students succeed in their coursework and situate

them as more attractive candidates for jobs and advancements in the workplace.

In designing the minor, we were mindful to establish course requirements in such a way as to dovetail wherever possible with existing requirements. As contributors to and stakeholders in the interdisciplinary science-writing minor, these students bring clear and relevant examples to illustrate the value of such endeavors and become themselves ambassadors for the minor through their successful engagement (e.g., for instructors in their major who find students better prepared to engage in classroom writing assignments and for employers who can appreciate both scientific expertise and the ability to tailor information to different audiences).

### **Sample Analysis: Writing Faculty as Stakeholders**

Next, we apply this heuristic to a faculty group—in this case, writing faculty. At UNLV, writing faculty are housed in the Department of English, where they comprise a minority in a department that otherwise is focused largely on literary studies.

Historically, writing faculty have aligned with the subdisciplines of composition studies and of technical and professional writing. Although writing faculty are trained in rhetoric, most “traditional” rhetoric courses at UNLV (e.g., Rhetorical Theory; Rhetorical Criticism) are taught in the Department of Communication Studies, which is housed in a different college at UNLV. As a result, although rhetoric is infused throughout writing courses, it tends to be positioned in a more applied, rather than theoretical, context that situates interdisciplinary minors—which foreground application and connection—as an ideal platform.

Generally, writing faculty have a vested interest in the growth and success of writing programs, and, although interdisciplinary minors offer an opportunity to collaborate with faculty across programs and colleges, increase enrollment in existing writing courses, and provide space to develop new courses (like science writing), these interdisciplinary courses may not (at least initially) be sustainable as courses for only English majors. As contributors to the minor, writing faculty then play a central role in the creation, implementation, and marketing of these courses and of the minors.

### **Sample Analysis: College of Engineering Administration as Stakeholders**

Third, we apply this heuristic to analyze administrative stakeholders and use disciplinary administration—specifically, the Office of the

Dean for the College of Engineering—as a model. Whereas any dean’s office has a vested and implicit interest in student success, the office’s mandate also includes “big picture” concerns regarding staffing, funding, accreditation, sustaining/growing enrollment in the college, supporting faculty success, and aligning with broader university initiatives as identified by the provost’s office. (At UNLV, these concerns include ongoing initiatives related to diversity and inclusion, research expenditures to support our top tier initiative, and other challenges.)

With regard to the dean’s office, administration appreciates the value of writing for their students, both as central to their students’ success as undergraduates as well as future employees in industry. At UNLV, this commitment is evidenced through the dean’s past support of the concentration in professional writing, which many students in engineering elect as a complement to their engineering degrees. Given UNLV’s emphasis on maintaining its recently achieved R1 status, the engineering administration also values the opportunities for interdisciplinary collaboration for engineering faculty, particularly as collaborations may support future extramural funding (in the form of interdisciplinary research projects as well as writing support for their faculty members).

### **Sample Analysis: College of Liberal Arts Advising Center as Stakeholders**

Finally, we consider the COLA advising center (at UNLV, the Wilson Advising Center). As is true for campus advising centers, two of the primary goals of the COLA advising center are 1) to ensure that students have the information that they need to make informed choices about their courses and degrees and 2) to provide guidance to influence and improve student retention, students’ progress toward graduation, and student completion of their degrees in a timely manner.

Advisors also bear some responsibility for helping students to understand how particular degrees align with the job market and with students’ plans following graduation. COLA advisors thus recognize the value of strong writing as a stand-alone skillset and as a supplement to specific liberal arts degrees, some of which (like English) may not have as clear and delineated a career trajectory as students graduating in disciplines like engineering and computer science. At a more formative level, advisors play a crucial role in making students aware of the interdisciplinary writing minors in the first place, including how, specifically, they can dovetail with other courses and programs.

As contributors to program development, they also play a central part in early identification of courses for inclusion. The advisors offer broad knowledge of how and where particular courses can count,



potential logistical bottlenecks (e.g., pre-requisites, course rotations), and insight from student experiences. As gatekeepers of sorts for student enrollment, they further highlight the need to clearly articulate the degree requirements; though all majors provide a clear degree worksheet with a checklist for students' degree audits, logistical challenges in advising can occur when the major's degree worksheet does not clearly align with the options for a designated minor.

### **Framework Part II: Relational Stakeholder Analysis**

With the basic stakeholder information developed from the heuristic, the next step for a WPA is to put that information into conversation. In other words, a WPA cannot leave the stakeholder information isolated: a program will only flourish with buy-in of (and collaboration with) all stakeholders. Because our relational table provides a tool for analyzing stakeholder relationships within the program, as well as relationships between and among stakeholders, the WPA can develop the insight necessary for implementing key strategies that promote buy-in and encourage collaboration.

### **Stakeholder Relations: Key Table Features for Analysis**

Because the analysis is always in the context of our writing program, i.e., within our interdisciplinary writing minors, our relational table begins with key features of the program. As noted above, our current analytical spreadsheet lists eight key program features that we believe are important for sustainable program development:

- **Curriculum:** As described above, curriculum involves the general structure of the minors, including the number of disciplinary courses and the number of English courses.
- **Writing expectations:** Each disciplinary course will operate from a negotiated writing expectation for the disciplinary course to be eligible to fulfill the expectations of a particular minor.
- **Course development:** Each course in the program will be developed collaboratively, with faculty including regular updates based on course and program assessments and faculty review.
- **Course assessment:** Each course in the program will be assessed consistently based on a set of program criteria developed collaboratively.
- **Program assessment:** The program will evaluate all course assessments, along with program-based assessment measures to improve course materials and delivery, student outcomes and workloads, and faculty workloads.
- **Faculty development:** The program will offer regular resources

and workshops to improve faculty workload and retention in the program.

- **Student input:** With course and program assessments, students will be asked to reflect on their experiences in each course, and the program will conduct regular focus groups and distribute an annual survey to give students a more effective voice in the program.
- **Career development:** The program will work closely with the different advising centers, as well as the university workforce leadership team, to improve career development opportunities for students in the program.

Space constraints limit us to offer brief descriptions of these features as examples, but each WPA should list and define the key features of their program to create a more robust table (as we model in Table 2). For a brief example, we provide Table 3, which uses the same stakeholders described in the previous section, but focusing on the program feature of “writing expectations.”

**Table 3. Sample relational table for program analysis**

	Writing Expectations	Engineering Admin	Biology Students	Writing Faculty	COLA Advising
Writing Expectations					
Engineering Admin					
Biology Students					
Writing Faculty					
COLA Advising					

### Stakeholder Relations: Brief Sample Using Table Features for Analysis

Because our goal is to analyze relationships and the impacts that the program has on stakeholders and vice versa, we use the top row (see Table 3) to indicate who or what has priority in a particular cell, which enables us to visualize spaces of both overlap and potential conflict. This location also prompts us to ask questions that can foster the kind of ongoing and reflexive process, which allows us to balance

stakeholder needs and concerns in a dynamic model. For instance, what might change if we prioritize writing expectations over the needs of the engineering administration? What happens if we prioritize the needs of writing faculty over the goals of biology students? If we focus too much on the advising center and less on the faculty? Many of the differences may be mere nuance; however, choosing the needs of one stakeholder may also have an adverse effect on another stakeholder or on the viability of a key feature of the writing program.

For engineering administration, writing expectations—i.e., which courses and content should be included and designated as fulfilling the technical writing minor—are guided by the genres common to the discipline and profession, the need to align with American Board of Engineering and Technology (ABET, one of the credentialing boards for engineering programs) standards and outcomes for accreditation, and human resources (i.e., faculty) to be able to offer and support writing-intensive courses. However, if a WPA emphasizes writing expectations that in some way are at odds with the engineering administration's goals for writing, then collaborating may become more difficult. For example, many of the ABET standards focus on the final product, but if a WPA wants to focus writing expectations for the program to ensure that all projects go through a writing process, then the WPA needs to have the necessary arguments prepared to get buy-in from the engineering administration. That is, the engineering administration must consider that the writing process is an important consideration in engineering courses.

For biology students, familiarity with common genres—and especially those (including the CER model) that they encounter in their courses—is likewise a priority, although these genres are markedly different from those common to engineering. Given biology students' highly regimented program of study, they care that the disciplinary courses designated as writing intensive be those that also count toward their major, rather than toward electives within their degree plans. The students' focus in considering writing expectations is shaped by course content and structure as well as a course's place within the broader major structure. In considering a biology course that counts toward the minor, if the WPA does not believe a particular disciplinary course is sufficiently writing intensive, that WPA might argue for a different course. However, if the new course does not count toward the major, then the course is not helping biology students complete their program in a timely manner. Stakeholders need to together consider these concerns.

For writing faculty, the minor courses offered in the English

department (aside from the minor-specific introductory courses) must offer training in rhetorical and writing strategies that can span disciplines and audiences, allowing the courses to serve both majors (including students focused in literature and in writing and rhetoric) as well as students enrolled in the class but pursuing other majors. These courses must also align with broader English major outcomes. Although meeting writing expectations is not necessarily a concern for the WPA with writing faculty, if priority is given to writing faculty to meet writing-intensive standards for an interdisciplinary writing program without input from the overall program or from other stakeholders, then other problems may arise for the program if the needs of disciplinary students are not met. Though writing faculty are beholden in part to the expectations of the English department and major, the reciprocal nature of the program design—itsself defined by a flexible and mutual contribution from multiple stakeholders—enables this tension to be reconciled. The involvement of each stakeholder at key points, from formative design to future evaluative efforts, ensures accountability, and that accountability is further supported through the mapping structure modeled here.

For COLA advising (focused on students majoring in liberal arts), one priority is that courses designated as writing intensive and offered in other colleges (e.g., for an English major pursuing a minor in science writing) need to be offered regularly, in different modalities, and without prohibitive prerequisites. As with biology students, the understanding of writing expectations is thus guided in part by logistical concerns, rather than particular ideas about what specific content, genres, or practices are privileged.

This abbreviated set of examples demonstrates both the textured understanding that our heuristic and relational table enables, as well as the areas of potential tension that we argue can be negotiated through a commitment to flexibility, agency, reciprocity, and accountability, and facilitated through the analytical process we offer here.

### **Applying Stakeholder Information for a Sustainable Writing Program: Flexibility, Agency, Reciprocity, and Accountability**

Although our model grew from our thinking about our specific technical and scientific communication program and our cohort of interdisciplinary writing minors, our framework can be adapted in a variety of contexts in which technical and scientific communication programs

operate. Our reasoning shows that, for other programs, an effective stakeholder analysis allows the WPA to glean the necessary insights that place stakeholder needs and goals in the context of the writing program to make effective choices for sustaining a program over the long term.

We have demonstrated that key program characteristics for effective program development and program sustainability are flexibility, agency, reciprocity, and accountability. The successful writing program needs accurate, honest, and well-rounded information to be truly flexible, to provide agency for all stakeholders in the program, to ensure that the contributions to the program are equally reciprocal for all stakeholders, and to ensure that stakeholders who contribute to the program are accountable (and acknowledged) for the long-term success of the program. For success, a WPA cannot build in program flexibility or flexible expectations without identifying new and possible long-term connections between stakeholders and the writing program, for flexibility is never defined the same throughout time for all stakeholders. Instead, flexibility must be contextual and must grow organically within the local environment. This contextual consideration proves true for stakeholder agency, as well. Agency is unattainable unless a WPA knows what is required in a flexible program design, how program features align with specific stakeholders, where stakeholders may have common goals or needs based on their relationship with other stakeholders, and where competing interests might arise in specific areas of the program. As noted in our examples, although the writing expectations of engineering administration and biology students differ in significant ways, the agency afforded to each college and department to designate appropriate courses enables the flexibility for both groups to chart courses through the minor that meet the needs of each. Likewise, to extend the engineering administration example further, if a WPA wants to ensure that projects in writing-intensive engineering courses go through a writing process, then the WPA might reciprocate by offering free faculty development that will both help engineering faculty deal more effectively with the paper load and, in the long run, improve their work/life balance (Nagelhout & Tillery, 2021). The reciprocal investment makes getting buy-in from faculty easier.

Our framework provides the information that can guarantee a voice for all stakeholders and encourages them to collaborate in program development because understanding the goals and needs of stakeholders provides the WPA with the knowledge to reciprocate accordingly across the program and establish standards so that

stakeholders are accountable to each other for the success of the program. A program design like ours depends on interdisciplinary collaboration among faculty and administrators to successfully account for logistical challenges related to credit hour limitations, curricular bottlenecks, and issues of retention and progression.

In conclusion, our stakeholder analysis framework clearly presents something that we have known: a full account of a writing program, with all of its messiness, and the hopes and dreams that arise from the myriad stakeholder relationships, can never be expressed in a single article. Instead, we have offered a glimpse into the design of our interdisciplinary writing minors and, more importantly, the ways that we use our stakeholder analysis framework to provide us with the depth of information that we need to make both strategic and effective choices to sustain the program over time. We plan to continue to research and refine our framework and further explore important program characteristics like flexibility, agency, reciprocity, and accountability. We anticipate that other WPAs will do the same.

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