Chapter 1: What Are We Really Teaching? Revisiting Technical and Professional Communication's Pedagogical Training

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Abstract: In technical and professional communication (TPC), a return to researching the service course provides an opportunity to reflect on current instructor training. I contrast the current approaches centered around genre theory with a theoretical orientation that came from this study: workplace phronesis taught through genre ecologies. Based on results from ten instructor interviews and a content analysis of their syllabi, assignment sheets, and feedback on students' writing, this chapter contrasts instructors' genre-based approaches to teaching the TPC service course with two experienced instructors' use of practical wisdom derived from their own workplace practices. Implications include recommendations for connecting the service course with TPC's content areas, revising the TPC instructor practicum, and encouraging instructors to comment on students' writing through a content-centric, rather than a genre-centric, lens.

Keywords: technical communication, pedagogy, pedagogical goals, phronesis, workplace writing

As technical and professional communication (TPC) continues to flourish in the 21st century, the field should continually be reflective, reconsidering and refining itself, both in external relation to other fields and in internal definition of who we are and what we do. The TPC service, or introductory, course acts as a barometer for the field's trends and pedagogical methods (Knieval, 2007; Melonçon, 2018a) and has recently received renewed attention in TPC research (see for example, Schreiber et al., 2018). The research in this chapter presents a problem: some TPC instruction is framed through a compositionist genre lens, when a lens of workplace phronesis would better teach students to communicate expertise, exercise ethical reasoning, and write and think to grapple with wicked problems. I write this chapter not to disparage composition or compositionists; rather, I wish to point out that these fields have different histories, pedagogies, and epistemologies. This chapter builds the idea of phronesis-based genre ecologies to help students learn to communicate expertise and to re-integrate TPC's content areas into the service course. TPC has great opportunities to reflect on and commit to future research on its history, pedagogical methods, and content areas.

The history of technical communication is bound up in writing to share definitions, knowledge, and processes and problem-solving. Joanna Schreiber, Melissa Carrion, and Jessica Lauer (2018) describe the history of technical communication during the industrial revolution and information age as developed through engineering communication at state universities (Malone, 2011). In the history of technical communication, communicating expertise has been a through line; using the service course to teach students to communicate their expertise is intertwined with the history of the field (Russell, 1993). At their best, TPC's pedagogical values prepare students to engage with the phronesis, or practical wisdom toward the role of problem-solving, of writing in workplaces and organizational spaces (Doan, 2021). Here, I add workplace to phronesis, but this definition encompasses any physical or digital space for communicating expertise, including writing to solve problems. Solving problems leads students to a greater grasp of organizational decision-making: very often, the problems for which technical communication can most effectively contribute solutions are organizational (Francis, 2018; Lawrence et al., 2017). Engaging students with problem-solving and organizational decision-making enables them to consider the roles of distributed cognition and employee agency in the post-postmodern workplace (Wilson & Wolford, 2017); the rhetorical term I use here to encompass these two activities is phronesis. As students solve problems and begin to shape organizations' decision-making, students require expertise in ethical reasoning and inclusivity. The TPC service course has great potential to shape students' responses to workplace quandaries through issues of plain language (Willerton, 2015), accessibility (Browning & Cagle, 2017; Huntsman et al., 2019), and racial biases (Shelton, 2020) through critical engagement with technologies and systems.

Teaching students to enact inclusive practices in their decision-making is the future of the TPC service course. Sometimes, though, instructors do not have the requisite content knowledge or the time to plan their pedagogies around these evolving content areas and best practices. Instructors, particularly those without workplace experience or advanced coursework in TPC (Doan, 2019), sometimes teach TPC's genres without as much attention to its goals: communicating expertise to create accessible communications that guide decision-making and problem-solving. To support these goals, teacher-scholars must be able to both foreground content areas and prepare students for organizational decision-making. As I show below, not all theoretical orientations are appropriate to address these goals, and some approaches to rhetoric even undermine these goals. Focusing on writing practices outside of the context of organizational decision-making may not be an appropriate approach to TPC pedagogy.

To illustrate this contrast between workplace phronesis and compositionist ways of thinking, I present results from a study of ten instructors' pedagogical goals within the TPC service course, based on a content analysis of instructor interviews, their syllabi, assignment sheets for the resume and cover letter,

and one section of feedback on their students' de-identified resumes and cover letters. Instructors' goals during their interviews often differed from the course outcomes on their syllabi, as less experienced instructors typically relied on terminology from composition or classical rhetoric. In contrast, instructors with both advanced graduate work in TPC pedagogy and professional experience relied on workplace phronesis to drive their pedagogy. Findings from this study illustrate the problems that arise when rhetorical concepts are not used effectively for teaching TPC, and offer a potential model grounded rhetorically by phronesis that addresses the limitations of genre theory for engaging students with workplace writing practices and with TPC's content areas: phronesis-based genre ecologies.

▪ Literature Review

Over the past two decades, TPC's content areas and domains of expertise have expanded; the field has expanded and is primed to respond to a quickly evolving world in exciting and challenging ways. Those teaching TPC, especially in the service course, must now be cognizant of several domains that inform the service course's content. When students enter the TPC service course, they often expect to write instructional materials: traditionally, user manuals (Malone, 2011). User documentation now includes instructional videos (Swarts, 2012), user forums (Swarts, 2018), and chatbots (Heo & Lee, 2018). Similarly, content strategy and content management have grown more diffuse, shifting from siloed document-based strategies to more abstract and holistic approaches to information management and architecture (Getto et al., 2020). Furthermore, the TPC service course offers students insights into accessibility in writing and design that they may not be taught to consider in other parts of their education (Browning & Cagle, 2017; Huntsman et al., 2019). Within typical TPC assignments, space exists to engage students with project management (Dicks, 2010; Hackos, 2005), user experience (Chong, 2018), data visualization (Welhausen, 2017; Wolfe, 2015), and the rhetoric of health and medicine (Hannah & Arduser, 2017). Becoming an effective technical writer now means going beyond a focus on grammar or word choice and zooming out to engage larger wicked problems, such as using information literacies (Boettger et al., 2017) to create content tailored specifically to a certain audience (Doan, 2020; Spilka, 2009). TPC faculty should familiarize themselves with these content areas, even if they are "only" teaching the service course, because these areas lend exegesis to assignments and course objectives.

Embedded in field-wide issues of technology, sustainability, and ethics are issues of training TPC instructors to teach the service course. The majority of TPC service courses are taught by contingent instructors, including adjunct faculty and graduate students (Melonçon et al., 2016). The contingent status of instructors is problematic for several reasons: They may not have workplace experience, so

they rely on textbooks to inform their teaching (Wolfe, 2009). Instructors might not have received pedagogical training specific to TPC (Read & Michaud, 2018), instead borrowing pedagogical practices from composition that they then apply to workplace genres (Doan, 2019). The contingent nature of many faculty and the need for more robust pedagogical training complicates service course instruction at both the instructor and programmatic levels (Knieval, 2007). In the next sections, I provide a brief overview of phronesis, which may help TPC better direct rhetorical training for instructors new to TPC.

■ Centering Workplace Phronesis

While rhetorical terms are often used to teach those new to teaching writing, rhetorical concepts hold different meanings and ways of knowing in TPC when contrasted with composition and other writing approaches (such as writing in the disciplines). Rhetoric's "function [*ergon*] is not to persuade but to see the available means of persuasion in each case" (Aristotle, 322 BCE/2007, p. 36). While other rhetorical theories, such as Aristotle's, Cicero's, and Quintilian's respective works on stasis theory (Bizzell & Herzberg, 2001), have been useful to technical communicators and those in the rhetoric of science or the rhetoric of health and medicine (Prelli, 2005; Teston, 2012; Walsh & Walker, 2016), they generally do not guide composition and—by extension—TPC pedagogy to the same extent as Neo-Aristotelian rhetoric. I am not saying that theories from Neo-Aristotelian rhetoric, such as purpose, audience, and context, are not useful. Rather, I am arguing that the separate missions and epistemologies of these fields are often overlooked when we use the same terms for different definitions.

Phronesis is a rhetorical concept that can be used to frame the goals of the TPC service course: introducing content areas and orienting students toward effective organization decision-making. Further, phronesis addresses the limitations of relying on genre theory, as over-focusing on genre obscures the high-order concerns of the TPC classroom: purposeful content, ethical reasoning, and audience awareness. In a phronesis-based genre ecology, students use multiple genres to communicate expertise and to guide decision-making. One common phronesis-based genre ecology can be seen in the employment application assignment: students write cover letters and resumes that coordinate a central argument that they would be a good fit for a specific job and company. Another is teaching students to coordinate a group project across a group charter, meeting minutes (or chat transcripts), a proposal, a presentation, a report, and group participation evaluations. These documents work together to both create and frame the project as a phronesis-based genre ecology that teaches writing through the "unofficial" genres of notes (Lawrence et al., 2017), meeting minutes, and group charters (Wolfe, 2010).

To further explain what I mean by the phronesis-based genre ecologies necessary for robust instruction within the TPC service course, I contrast the goals of

TPC and composition. While both disciplines ask students to consider real problems and solutions, they champion different skills and epistemologies through the ways that they ask students to engage with their writing processes, draw on secondary sources, and use the affordances of their modalities. Composition pedagogy foregrounds critique, persuasion, and argument-making (Booth, 2007). Discussing writing in this way is not how workplace writers operate. While these skills, or techne, are essential for both academic and technical writing, students need more experiences in phronesis, or problem-solving, that are unique to TPC. Pedagogies influence practices and vice versa when creating opportunities for TPC to respond to a rapidly changing professional world.

In composition, genres represent individual learning or public persuasion. In TPC, genre represents communicating expertise through genre ecologies. Both composition and TPC aim to foster students' "deeper understanding of how to use writing to improve students' domain-based learning, to engage them in co-constructing professional knowledge and know-how, and to socialize them into professions in ways that improve those professions and the world they serve" (Russell, 2007, p. 249). However, these fields use rhetorical theory and written genres in different ways; largely, the theories and methods for teaching composition do not transfer to teaching TPC, particularly in the service course. I say this not to disparage the work of composition instructors and scholars, but rather to point out how these fields use the same terminology and basic principles to different ends: Composition students use genre to explore a topic or persuade the public. TPC students use genres to apply for jobs, or solve a customer service problem, or ask for grant money.

◼ The Limitations of Genre Theory

While genre theory affords instructors the means to explain the parts and functions of common workplace documents, deeper learning benefits from a phronesis-based approach, such as workplace genre ecologies (Doan, 2021). Genre theory has two limitations: overreliance on form and oversimplifying larger, more nebulous issues like context, kairos, and ethics. Overreliance on templates and formatting limits how much students learn about writing content across workplace genre ecologies (Lawrence, et al., 2017). The TPC service course engages with genre and genre theory differently than in many composition classrooms.

Throughout its relatively short history (McLeod, 2007), composition has been defined by its genres: the argumentative essay, the expository essay, the literacy narrative (Brodkey, 1994), the five-paragraph essay (White, 2008), the traditional research paper (Adler-Kassner & Wardle, 2015), and the multimodal project (Duffelmeyer, 2002; Yancey, 2004). Much of composition pedagogy has focused on teaching students what these genres are and how they shape an academic argument (Barnett & Kastley, 2002; Lynch et al., 1999), or how students can manage their writing processes. These composition genres are mostly genres of form,

rather than genres that function in the world in the ways that TPC genres such as resumes and cover letters do. Instead of writing to learn or writing to display knowledge, when writing workplace genres, TPC practitioners write in order to solve problems or perform social actions (Miller, 1984). While instructors may use genre theory as they conceptualize, scaffold, and outline their assignment parameters, most composition students focus on the form and external expectations when writing. The assumption of transfer has been emphasized when discussing multimodal composition: to meet assignment parameters, students must use written, aural, visual, and digital elements as they craft their projects. Although the individual technes of these multimodal affordances can transfer to other places within TPC curricula (i.e., facility with Adobe InDesign), the phronesis of aligning their visuals with the task that their users want to accomplish largely does not.

As a field, TPC views genre as both form and function. Much of TPC still theorizes and enacts genres through Carolyn Miller's (1984) assertion that genres are social actions, therefore genre must reflect the writer's purpose for communicating. Over the past three-and-a-half decades, the explosive growth of digital genres (Miller, 2015; Tillery & Nagelhout, 2015) and contextualized genre theory (Devitt, 2009, 2010) has given TPC scholars lenses for viewing genres in post-postmodern situations. This theorizing, however, has not always translated into specific classroom practices, particularly within the TPC service course. For example, TPC textbooks tend to focus on genre as a series of formats or rules (Wolfe, 2009), or give heuristics for abstract problem-solving, rather than as opportunities for students to learn how professional genres can be used to solve workplace problems. Despite the field's robust theorizing about genre as social action, activity theory, and actor-network theory, these terministic screens have not always translated into actionable pedagogical methods that enable students to learn how to solve problems using workplace documents (Melonçon, 2018b; Morrison, 2017). TPC pedagogy needs to be "moving away from form-based discussions toward more productive rhetorical ones" (Lawrence et al., 2017, p. 2) by building a functional vocabulary for instructors to use when building students' information literacies (Boettger et al., 2017) and discussing content-centric writing issues (Doan, 2020; Spilka, 2009). These productive rhetorical conversations are the phroneses largely absent from a form-based approach to teaching the TPC service course. For example, how genre ecologies like post-it notes, emails, and outlines about a software project become "genre ecologies," or "sets of tools to 'transform data'" into actionable workplace genres (Spinuzzi, 2003, p. 100). Or teaching students to create usable project charters and task schedules in order to use the genres of project management to actively guide their collaborations (Wolfe, 2010). Teaching form-based or theoretical views of genre without a full consideration of the rhetorical context, then, does students a disservice. Students should be learning how genre is "driven by exigency" (Malone & Wright, 2018, p. 124) within larger communicative and social networks. TPC has its own

phronesis-based genre ecologies that communicate expertise to solve problems. In the following study, I look at how instructors' approaches to theory foster their abilities to articulate and explain their pedagogical goals within the TPC service course.

▌ Methods

To understand how TPC instructors articulated and enacted their pedagogical goals for the service course, I conducted interviews and content analysis of course documents. The results featured here are one part of a deep qualitative examination of instructors' feedback practices in the TPC service course, after testing these interview questions and the triangulation of the data collection in a pilot study (Doan, 2019). These results feature answers from the first ten instructors of a 20-instructor study (Doan, 2020) focusing on instructors' pedagogical goals. I use the results from the first ten instructors to make an argument about workplace phronesis in TPC teacher training with attention to genre ecologies.

With Institutional Review Board (IRB) approval #18.200 from the University of Wisconsin–Milwaukee, I recruited ten instructors through social media and professional listservs. After completing a short demographic survey, each instructor submitted their service course syllabus, the assignment sheet for their resume and/or cover letter assignment, and one section of their students' de-identified resume and cover letters with instructor feedback. Instructor interviews comprised three parts, as tested and described in my pilot study (Doan, 2019): First, instructors discussed their goals for students' learning in the service course. Second, instructors talked about their feedback workflows. Third, instructors conducted retrospective recall (Still & Koerber, 2010) to explain their rationale for writing each feedback comment on two of their students' resumes and cover letters.

During the first round of iterative coding (Tracy, 2013), I open-coded the course objectives from the first five service course syllabi, then compared these results to a single question from each instructor's interview: "What do you think your students most need to know or do when they leave your class? Why?" During the second round of coding, I coded the course objectives from Instructor 6-10's syllabi and compared those results with the interview question about what they wanted students to know after their TPC service course. The third round of coding shifted from primary-cycle coding to secondary-round coding; I used the now-established coding scheme on instructors' interviews to understand instructors' spoken beliefs about their teaching. At this point, tensions between instructors' spoken goals and their syllabi's course objectives began to emerge, as presented in the results. The differences between Instructor 6's and 10's approaches to workplace phronesis became clear during the third round of coding.

▌ Limitations

While this chapter represents research with a small number of participants, collecting the survey data, pedagogical materials, and feedback on de-identified resumes and cover letters allowed for triangulation between data sources. As the first stage of a two-stage study, these results included ten instructors; the TPC articles usually include an average of 12 participants (Melonçon & St.Amant, 2018). To overcome this limitation, I conducted a four-instructor pilot study (Doan, 2019). I have triangulated my data collection and collected substantial amounts of verbal and textual data to create "thick description" of instructors' goals and feedback practices (Tracy, 2013, p. 2). These results with ten instructors come from the first stage of a two-stage study of 20 total instructors and more fully coded data (Doan, 2020). This project has two secondary limitations: race and information about workplace writing. I did not formally collect data about instructors' race or their workplace experience. During the second phase of the study, my participants included instructors of color and instructors at minority-serving institutions. To make more concrete claims about instructors' workplace experiences, I wish that I had collected more information about instructors' professional experiences and the extent to which these experiences influenced their teaching. Although Instructors 1, 5, 6, 9, and 10 volunteered this information during their interviews, having a formal interview question about instructors' workplace experiences would have given clearer viewpoints of their pedagogical goals.

▌ Understanding Phronesis as a Framework for Teaching

Phronesis centers around decision-making skills and practical wisdom. Phronesis is "Aristotle's word for the mental ability to select the best course of action in situations fraught with uncertain knowledge and competing claims of morality and practicality" (Bizzell & Herzberg, 2001, p. 1633). Phronesis acts as an essential component of knowledge work—as Ancient Greeks used phronesis in warfare and rhetoric, and techne in leatherworking and pottery making. Phronesis describes how effective communicators operate in today's unstable workplaces (Wilson & Wolford, 2017), with de-contextualized texts (Swarts, 2018). Particularly when working with writing, phronesis is intuition-based, for example, when instructors judge how many comments to give on students' assignments (McMartin-Miller, 2014). Phronesis takes the norms and habits of giving feedback and translates them into an enactable strategy. When students leave the service course, we want them to use phronesis when dealing with thorny interpersonal or ethical situations. While composition classrooms engage students with phronesis, the TPC classroom uses phronesis to teach professional decision-making with subject matter experts, genre ecologies, and challenges

of writing in organizations. To make an argument for the phronesis-based pedagogy that instructors should be teaching in the TPC service course, I present this study's results accompanied by examples from two associate professors who participated in the study. Both Instructors 6 and 10 grounded their pedagogical goals and feedback-giving practices within their own workplace experiences and explicitly talked about teaching students the "practical wisdom" (Instructor 10) that students would need for their future lives and careers. Other instructors in the study based their pedagogical approaches in rhetoric, but these results could use more connection to the skills and practices needed to help students become successful knowledge workers and citizens. I use the study's main results to show the limitations of these instructors' reliance on genre theory and to contrast this with the workplace phronesis that Instructors 6 and 10 used when describing their pedagogical goals and commenting on students' resumes and cover letters. These experienced instructors' focus on practical wisdom and connecting rhetorical theory to their workplace experiences lays a foundation for the types of phronesis-based genre ecologies that enhance the TPC service course, and refocuses students' and instructors' attention on each genre's content, instead of its form.

▋ Results

The results from the demographics survey show that instructors' levels of experience and pedagogical training were mixed (see Table 1.1). Working in business departments, Instructors 1 and 9 had no graduate-level pedagogy training, instead relying on their extensive business and consulting training. All other instructors had taken a course in composition pedagogy; five had taken a course in TPC pedagogy. Four instructors had additional pedagogical training: three in online teaching, one in cultural studies teaching, and one in the developmental course for students at her state university. Instructor 8 had a graduate-level certificate in pedagogy. Instructors in this study had between 3.5 and 17 years of experience teaching TPC courses.

The results of this study give a snapshot into how instructors are teaching TPC service courses as the field rapidly grows and the professional world continues to transform. In this section, I discuss results from this study that indicate that these instructors frame their course goals as rhetorical through audience, context, and purpose. Instructors' spoken pedagogical goals, however, differed from their syllabi's learning objectives: when speaking about their goals for students' learning, instructors often spoke about genre theory. When writing about their course goals in their syllabi, information literacy and content were the most common course goals except for rhetoric. Finally, these results suggest connections to explore between workplace experience; teaching experience; and a graduate degree in rhetoric, composition, or TPC.

Table 1.1. Instructor demographics

Instructor	Years Teaching TPC	Institution's Carnegie Designation	Status	Home Department
1	7	Private, 4-year, very high research activity	Clinical assistant professor	Business
2	5	Public, 4-year, master's university	Tenure track	Technical communication
3	6	Public, 4-year, master's university	Tenure track	English
4	8	Private, 4-year, high research activity	Tenure track	English
5	17	Public, 4-year, high research activity	Lecturer	English
6	16	Public, 4-year, master's university	Tenured	English
7	6	Public, 4-year, master's university	Tenure track	English
8	3.5	Public, 4-year, master's university	Tenure track	English and foreign languages
9	8	Private, 4-year, master's university	Assistant professor, non-tenure-track	Business
10	15	Public, 4-year, high research activity	Tenured	English

Note. Instructors in stage one of this study had 3.5-17 years of experience teaching TPC, came from nine different institutions, and had varying employment statuses and home departments.

During each interview, instructors' values were student-centered; they clearly cared about their students' learning and experiences in their service course. However, instructors were not always consistent with the pedagogical goals that they spoke of most frequently. For example, Instructor 1 mentioned teaching teamwork the most often, even though her main goal was to teach students to understand then apply "business communication theory." Instructors 2 and 9 mentioned audience most often, even though Instructor 9 wanted her students to understand and apply theory. Instructors 1 and 9, who taught business communication in business departments at a top-ranked business school and a small liberal arts school, respectively, both said that their students needed to understand theory, then apply that theory to business communication genres and research. Instructors 3, 5, and 10 mentioned genre most often during their interviews, even though each instructor most wanted their students to write rhetorically with attention to

audience and context. Teaching engineers, Instructor 6 mentioned information and content most often, consistent with what she most wanted her service course students to know. Finally, Instructor 8 mentioned issues of tone and style most often during her interview, even though she wanted students to learn how to "communicate simply." Although Instructor 10 grounded his teaching practices in rhetorical theory like Instructor 8, he also used his workplace experience to undergird his teaching practices like Instructors 1 and 9. However, unlike Instructors 1, 8, and 9, Instructor 10 connected his workplace expertise with "practical wisdom" or phronesis. Instructors' individual pedagogical goals reflect their unique backgrounds, education, and workplace experience, along with what they want their students to take from their service courses.

When asked what their students most needed to know or do by the service course's end, each instructor had slightly different answers. Over half of the instructors in the study (Instructors 2, 3, 5, 7, 8, and 10) stated that their students needed to understand how to communicate to different audiences through the service course; for example, Instructor 5 said, "think my students need to be able to determine, depending on the circumstances, who their audience is, what their audience needs are, and what type of writing is going to communicate that best." Instructor 10 linked audience with purpose because "documents lead to actions." Instructor 4 wanted her students to know that their professional communication skills would transfer to other situations, but that students could "be effective and ethical communicators in any real context." Instructor 6 discussed writing in terms of information, framing her service course to help her engineering students "express [technical ideas] in words." These results paint a picture of how these instructors approach their service courses: introducing students to rhetorical terminology such as audience and framing information and genres that students could transfer to other contexts.

◼ Workplace Phronesis in the TPC Classroom

Experienced instructors with degrees in rhetoric, composition, or TPC (Instructors 6 and 10) used language during their interviews that was situated more firmly in workplace contexts, while still employing theoretical concepts like phronesis and transfer. Instructors 6 and 10 were best able to integrate their pedagogical philosophies across their interviews, syllabi, and feedback on students' writing because they both framed the TPC service course as an entity that has different goals and approaches than composition. Both directly credited their own professional experiences with their abilities to teach students a workplace phronesis, or "practical wisdom" (Instructor 10), instead of writing from a series of strict rules or checklists.

Instructors 6 and 10 had profound insights about the differences between composition and the TPC service course, particularly about the role of the writing instructor. Along with using his 15 years of experience teaching TPC courses and his graduate coursework in TPC, Instructor 10 deploys a rhetorical approach,

but one that is specifically grounded in TPC as a field of experience and study. When asked what his students most needed to know or do at the end of the semester, Instructor 10's philosophy was inherently rhetorical:

> Probably that [students] need to approach writing texts rhetorically. So, by that, I mean that they have a sense of the audience and the purpose. That they craft the document—whatever that document is—to fit the specific audience and the specific purpose.

Purposes and audience mattered to Instructor 10's pedagogical goals. On the surface, this quote does not differ much from Instructor 8's emphasis on teaching students to "communicate things simply with co-workers." Both Instructors 8 and 10 want students to understand and communicate to their purposes and audiences. However, when Instructor 10 explains his approach to theory in his service course, a marked difference appears between his answers and those of less experienced instructors who relied on their composition training.

■ Separating TPC from the Service Course

For Instructor 10, the service course was an opportunity for students to learn that writing had purpose and that writing could guide decision-making to produce action. During his interview, Instructor 10 spoke at length about how the rhetorical situation of his classroom differed from that of composition or literature courses:

> With a technical writing course, students are able to move away from writing a document in an attempt to please an instructor, as we have to try to do when we're in first-year writing. Or even in a literature class, where you are writing to display your knowledge or your understanding to the instructor. So yes, in a tech[nical] writing class students write to me. But I hope they try to understand that I'm not merely grading . . . but I'm trying to approximate what would happen to this document in a workplace.

In this quote, Instructor 10 addresses both his approach to giving feedback on students' writing and how the TPC service course differs not just from first-year composition, but from almost all other courses that students take during their undergraduate careers. To Instructor 10, the service course was not just a display of a student's knowledge, but a way to develop specific skills, or phronesis, in workplace writing.

Instructor 6 also relied on her workplace experience to inform the ways that she articulated her course goals and gave feedback on student writing. For Instructor 6, the service course provided ways for students to improve their abilities as workplace communicators and project managers. Instead of discussing the writing teacher's role like Instructor 10 did, though, Instructor 6 frames her

service course in response to her engineering audience's needs. Instructor 6 was able to address these needs because of her workplace experience:

> I taught in a law school as my grad assistantship for four years. . . . So, I had some experience with writing that wasn't freshman comp essentially . . . a lot of the same principles as freshman comp certainly apply. But what I found is that it's such a different audience. That a lot of the techniques that I use in my freshman composition class—it's just not the same. . . . There are skeptics, more so than freshmen in freshman comp. I mean freshmen [in] comp are like, "Oh it's a class everyone has to take" and you know they just got out of high school and you know they just kind of get through it. This one is "I hate writing and I've already taken freshman comp. Why am I here? I'm never going to have to write. I want to be an engineer. I like math" or whatever. And so, you get an extra level of skepticism. One of the things I love is surprising them. You know like, "This is really relevant and you're really going to use this."

Teaching her students, especially the skeptical ones, that TPC skills would be relevant and useful to their education drove Instructor 6's pedagogy. She enjoyed working with her engineering students and often spoke about writing in engineering terms, such as persuading subject matter experts or tailoring information to a non-engineering audience. To help overcome her students' skepticism, Instructor 6 was very clear about telling her students how their skills would transfer to the workplace and giving students "blunt" feedback about their work. Instructors 6 and 10 asked their students to write workplace genres situated in real contexts, giving their students experiential learning opportunities that fostered workplace phronesis.

Instructors' Goals for Students' Learning: Rhetoric, Genre, and Information Literacy

Across these interviews, instructors' pedagogical goals stayed remarkably consistent: these TPC instructors relied on overtly rhetorical framing for teaching the TPC service course, both in their interviews and their syllabi's learning objectives. Rhetoric, including purpose, audience, context, and persuasion, was the most often-coded terminology in both instructors' interviews and their written learning objectives. Rhetorical theory and terminology informed instructors' approaches; instructors with fewer than six years of experience (Instructors 2, 3, 7, and 8) tended to directly apply composition or classical rhetorical theories to their TPC classrooms without considering how these theories might function differently in TPC. For example, Instructor 8 had three and a half years of experience teaching TPC courses and used rhetorical terminology as a placeholder for workplace experience in her TPC service course. When asked what students needed to be able to know or do when leaving her course, Instructor 8 answered

that students "really just need to know how to communicate things simply with co-workers." The Neo-Aristotelian definitions of purpose, audience, and context often acted as a placeholder for terms specific to workplace experience or TPC theory and research. This is not to say that rhetorical terminology can never be useful, but rather to point out that overtly relying on rhetorical theory instead of workplace experience or an understanding of TPC genres and work styles diffuses the emphasis of TPC's pedagogical goals.

▉ Implications

From this study's results, I observe the following themes: a focus on TPC content areas, workplace phronesis, and teaching students to privilege content over form. From those themes, I outline takeaways for TPC around rhetorical definitions' influences over terminology and about phronesis through experiential problem-based learning. In this section, I outline challenges and opportunities for future research on TPC pedagogy.

▉ Theme 1: Integrating Content Areas into the TPC Service Course

The first implication of this study presents an opportunity for TPC to integrate content areas (outlined in the introduction) into the service course. Several instructors from this study used composition-based rhetorical terminology to frame their course goals and pedagogical approaches in ways that did not align with the learning outcomes and course objectives in their syllabi. While rhetoric was used consistently and remains important to TPC, this gap between the audience-, context-, and purpose-based rhetoric that these instructors are teaching creates a gap between instructors' ways of talking about TPC and their ways of writing about TPC. Tensions between rhetorically situated genre theory and teaching critical thinking or information literacy also deserve more attention. The second stage of this study revealed that instructors rarely consider teaching students to focus on writing's content as a major goal for the TPC service course, yet disproportionately often comment on students' content (Doan, 2020). More research about instructors' training could help answer these questions more effectively (Read & Michaud, 2018). How might instructors balance rhetorical terminology with teaching students to apply this terminology across TPC's content areas? Integrating these content areas more readily into the service course could also enable instructors trained outside of TPC to better enable students' preparation as professional writers.

▉ Theme 2: Teaching a Workplace Phronesis

This study's second theme is a theoretical orientation that instructors can use to move to a workplace phronesis (Doan, 2021). Instructors 6 and 10 used their experiences in professional organizations to guide their students' attention to

decision-making and organizing content that oriented readers to their purposes for writing through experiential, problem-based learning and through giving feedback that attuned students to workplace activities. However, workplace experience is not enough to produce a workplace phronesis with a theoretical component: Instructors 1 and 9, both with extensive industry experience but without graduate coursework specific to TPC, tended to rely on transmission theory, long debunked elsewhere (Slack et al., 1993). Instructors 6 and 10 present arguments for effective TPC pedagogy as the intersection between rhetorical thought, academic training, and workplace experience. Engaging students' practical wisdom with using writing to solve problems, make organizational decisions, and challenge established thinking around race, class, and gender should be primary aims of the PTC service course. The gap between rhetorical theory and phronesis in TPC should be further explored.

In connecting his experiences with rhetorical theory, Instructor 10 uses his pedagogical goals to merge theory and practice: epistemic or theoretical knowledge of rhetoric here is combined with phronesis or knowing how. "*Knowing how* is a technical sort of knowledge that falls on the wrong side of the theory-practice binary" (Sullivan & Porter, 1993, p. 409). Instructor 10's reliance on phronesis in his teaching is significant because he describes his pedagogical underpinnings of theory as technical communication theory. Of all the instructors in this study, Instructor 10 makes the most intentional effort of using theory specific to TPC both in his own interview and in his syllabus' learning objectives. In his service course syllabus, Instructor 10 wanted his students to "understand principles that inform professional communication." Instructor 10 included the rhetorical concept of "audience analysis" in his learning outcomes; he further sketched theory more broadly for his students, also wanting them to understand TPC concepts of "ethics, collaboration, graphics, and design." There is room within TPC pedagogy for pedagogical approaches that champion both rhetorical theory and the phronesis of workplace practice.

◼ Theme 3: Workplace Phronesis is Content-Centric

Teaching their students to write in workplace genres was instructors' second-most important goal during these interviews. However, the analysis of instructors' learning outcomes in their service course syllabi revealed that while rhetorical understanding and ability was still most important, critical thinking—including information literacy and teaching students to write about content—was second-most important. Despite the fact that information literacy, critical thinking, and considering content appeared as course goals in each of the ten syllabi, instructors rarely mentioned them when discussing their goals for students' learning. When discussing their comments on students' writing, however, instructors often asked students to engage with, rearrange, or revise their content (Doan, 2020). This divide between genre and information literacy points to a critical issue within TPC pedagogy: instructors often used rhetorical terminology and genre theory as

placeholders for workplace phronesis that they may not have developed. Particularly for less experienced instructors, issues of purpose or genre took precedence over issues of content or detail in the service course; this result contrasts with more experienced instructors' attitudes toward phronesis (Doan, 2020). Instead, less experienced instructors relegated detail and content to lower-order issues and discussed higher-order issues such as purpose or context, when content should be considered a higher-order and high-stakes issue that could strengthen TPC's connections to industry (Boettger et al., 2017; Spilka, 2009).

■ Conclusion

Future research has ample ground to examine how borrowing pedagogical methods from composition leads instructors to treat phronesis as techne, instead of meeting students' higher-order needs through experiential problem-based learning (Lawrence et al., 2017; Melonçon, 2018). Within its own research, TPC should re-examine its theoretical relationship to techne and phronesis. Thus, TPC should differentiate phronesis from techne. Instead, how might instructors design experiential learning opportunities for students that ask them to demonstrate practical wisdom while balancing competing contextual demands? While technes are still important to TPC instruction, such as teaching students to use InDesign or to copyedit their written instructions, teaching phronesis should be the focus of the service course. Reducing rhetorical terminology to understanding audience or audience analysis diminishes students' opportunities to gain experience with how genres work in situations with competing moral or ethical exigencies. To enact these values, TPC must strengthen its training for new instructors, particularly through conducting empirical research about service course classrooms.

TPC has reached a critical juncture: to meet the ever-evolving needs of present and future students, TPC must continue its own rigorous tradition of pedagogical training, particularly for novice instructors. TPC should continue to rely on its own pedagogical epistemologies, rather than relying on composition pedagogy to inform its pedagogical research and new instructor training. From their separate histories, TPC and composition continue to develop different exigencies for critiquing existing problems and writing to attempt solutions. This research has raised questions about what the service course has the potential to be if instructor training in TPC focused on teaching students and instructors a workplace phronesis centered around genre ecologies.

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