

## — Chapter 5

# Writing Tasks and Evaluating Students' Discipline-Specific Writing

A natural extension of the topics addressed in Chapters 2–4 would be how writing tasks are often assigned in the graduate-level research writing classroom and how to evaluate discipline-specific student writing.

### **The Four Dimensions of Writing Tasks in the Graduate-Level Research Writing Classroom**

#### **Requiring Students to Write on Discipline-Specific Topics**

Writing tasks, broadly speaking, are those that require students to produce writing. They have been assigned in a variety of ways and settings. The pedagogical reality of a multidisciplinary classroom has led instructors, naturally, to assign discipline-related writing. As examples, Cargill, Cadman, and McGowan (2011) asked their students to analyze successful departmental models and then to develop a topic specific to their areas of study, compose a related research question, and write a short paragraph about the topic and the question, while Lynne Flowerdew (2016) asked students to write a grant proposal abstract based on a project in their fields. Swales and Feak also often ask users of their books to perform discipline-related writing tasks. In *AWG*, for example, they ask their

students to “write a short reaction to a paper in your field or to an oral presentation you have attended” (Swales & Feak, 2012a, p. 275) or to “write (or rewrite) your Methods section for some of your own research” (p. 305). There are additional examples of requesting students to write on discipline-specific topics in *Creating Contexts: Writing Introductions across Genres* (Feak & Swales, 2011, p. 98) and in *Abstracts and the Writing of Abstracts* (Swales & Feak, 2009, p. 24).

### Requiring Students to Writing for Different Audiences

In their textbooks, Swales and Feak often ask their readers to practice writing for different audiences: In *AWG*, they point out how “your understanding of your audience will affect the content of your writing” (2012a, p. 4) and then ask readers to analyze two texts on the same topic. Drawing readers’ attention to the different vocabulary items, details, and target publication venues that have supposedly been driven by the needs of different audiences in the two texts, they then assign readers to “write a short definition of a term in your field for two different audiences,” one consisting of “graduate students in a totally unrelated field” and the other “could be students in your own graduate program” (p. 6).

In *Creating Contexts: Writing Introductions across Genres*, Feak and Swales (2011) first analyze a range of features specific to the genre of book reviews, including the kinds of information suitable for inclusion in book reviews and the *as* clauses often used to open a book review (*as the potential reader may suspect... the author...*) (p. 29). The readers are, then, asked to write two short introductions to a review of the very book the readers are reading—*Creating Contexts: Writing Introductions across Genres*—“for two different audiences: (1) readers of a journal in your field and (2) your instructor or students at your institution” (p. 31). Other examples of requiring students to write for different audiences include Cargill, Cadman, and McGowan (2001) where their students from across the disciplines were asked to “write a brief explanation of your research topic for the TESOL lecturer, who is a nonexpert in your field” (p. 95). The students were then required to write

another version for a different audience, such as an engineering student writing to a group of engineering students and faculty members, presumably based on the same research topic.

Requiring students to address the needs of different audiences is consistent with the goal of the genre-focused approach to graduate-level research writing instruction—raising students’ rhetorical consciousness—because understanding and targeting the needs of different audiences constitute part of one’s rhetorical consciousness.

### Asking Students to First Analyze, and then Write

Apart from requiring or encouraging students to write on discipline-specific topics or content materials and to write for different audiences, graduate-level research writing instructors and scholars have also designed or assigned writing tasks that have been carefully scaffolded by preceding genre analysis tasks (see Chapter 4). For example, L. Flowerdew’s (2016) workshop attendees were asked to work on proposals based on their own discipline-specific topics after the proposal genre had been analyzed extensively.

Swales and Feak’s discipline- and audience-based tasks also often follow their careful analysis of the rhetorical organizational patterns and the lexico-grammatical features they hope their students will apply in the writing tasks. In fact, most, if not all, of the writing tasks in Swales and Feak’s series of textbooks have been carefully guided by their detailed analysis of the target genre or part-genre to be practiced in the writing task (see Task Seven, for example, in *AWG*; Task Eight in *Abstracts*; and Task Three in *Creating Contexts*).

### Engaging Students in the Writing Process

Some instructors of graduate-level research writing have engaged students in the writing processes, such as brainstorming for ideas or writing as a group or in pairs. An interesting example of this comes from Paltridge (1997) in his course on thesis proposals. First, he provided students with the abstract and key tables and figures from the Methods section of

a research project relevant to the interests of a specific group of students and then asked the students to plan, in pairs or as a group, the writing of a proposal based on that particular piece of research. That done, Paltridge asked about the areas that needed to be addressed in each section of the proposal, and his students wrote a rough draft of the proposal. After the students presented these draft proposals to the rest of the class and invited comments and suggestions on how they might develop their proposals further, the outlines and the notes they had taken throughout the course were used to develop proposals for their own individual theses (p. 67).

Gustafsson, Eriksson, and Karlsson (2016) have built peer response—a part of the writing process—into their course focusing on traditional JAs. The peer response activities not only provide additional formative feedback that the instructors cannot provide but have instilled in their students a writing habit or culture that emphasizes social interactions (see also Starfield, 2003, 2016). Gustafsson, Eriksson, and Karlsson (2016) noticed that the peer response activities make explicit and destabilize PhD students' deeply entrenched assumptions of the disciplines they are a part of and lead them to notice the consequences and effects of their textual options. They noticed that their students “appreciate the resulting opportunity to re-evaluate” their written work (p. 266). As one student put it, “It has really been an eye-opener to realize that sentences and entire texts that make complete sense to the writer, i.e., me, can be perceived as almost incomprehensible to another reader” (p. 266). See also Cargill, Cadman, and McGowan (2001) and Douglas (2015) for other examples of writing tasks that engage students in the writing process in their graduate-level research writing classes.

### **Incorporating the Four Dimensions into the Same Writing Task: An Example**

Although novice instructors of research writing could learn to incorporate these and other related dimensions into the writing tasks assigned in the graduate-level research writing classroom,

it seems to me that the descriptions in these cases still lack adequate details about how the tasks have been developed or assigned, and there is little information as to how the writing was evaluated. Consequently, some important answers are still needed. A question that readers may have is related to the rationales behind some of the dimensions in the writing assignments, such as asking students to write for different audiences. In addition, how do the different dimensions (writing for different audiences, but on the same discipline-specific topic, for example) work together in an actual writing assignment, especially when students are to write a longer piece that may span multiple moves in a part-genre or in a genre? How can we build a stronger connection between the analysis and the writing of genres or part-genres, given that some of the writing tasks reported in the literature often use genre analysis to scaffold writing tasks? What should instructors look for in a piece of writing as indicators of students' learning and development? How can instructors read and evaluate students' discipline-specific or discipline-related writing samples that often contain unfamiliar topics, logics, styles of argument, organizations, and lexico-grammatical features?

In trying to address some of these issues, I will describe one of the discipline-related writing tasks I have previously assigned (see Figure 5.1).

An additional writing assignment that I have typically assigned is comparable to this, but requires students to write a section other than the Introduction (e.g., Methods, Findings, Discussion, or Conclusion). In other words, “introductory” or “introduction” are switched out from the sample assignment sheet in Figure 5.1 and replaced with “Discussion,” “Methods,” or the name of another part-genre. The same parameters described in Figure 5.1 still apply.

## How Have the Four Dimensions of Writing Tasks Been Built into This Example?

I expand on the four dimensions that have been built into this sample assignment here.

**Figure 5.1:** Sample Assignment Sheet for Introductions

### Writing Three Introductions

#### Purpose

To practice using the genre-specific features we have learned to write the introductory sections of three research genres or the same introduction part-genre for three different rhetorical contexts.

#### Procedures

##### *Step 1*

Write an introduction section similar to that in a standard data-based JA in your field. Your introduction can be based on a current or a future research project. If you have completed a project but have not written it up, use this opportunity to write it up.

Before writing, reflect on the features in the JA introductory sections we have been discussing and will continue to discuss in class. Look at your analysis of the JA introductory sections in your reference collection. Think about the following questions:

- What moves can I incorporate into my introduction? Why? What are the rhetorical contexts (readers' needs, my purpose, ...) that make these moves and not other moves suitable for my introduction?
- What linguistic features can I use in my introduction? Specifically, what are the typical words or sentences often used in the moves in the introduction in my field? What are the sentence patterns? What rhetorical purposes can these linguistic features help to achieve, and how would the readers react to them?

Do not write separate, unrelated moves. Instead, write a coherent and well-structured introduction where one move flows naturally and coherently to the next.

**Figure 5.1 (Continued)**

Do not try to write an introduction that you think I may like or one that is exactly the same as those analyzed in class. Instead, write one that you feel would meet the expectations of research peers in your field. Think about who your readers are, what they may or may not know, and what they may need from you. Consider carefully the purpose of each move and the purpose for the whole introduction as well.

##### *Step 2*

After you have written the introduction of a standard JA in your field (see Step 1 above), write two additional versions of introductions for two different rhetorical contexts. Base these two additional versions of your introductions on the same research project that you used for your standard JA introduction in Step 1 above. For example, you can write the introduction of a grant proposal or that of your thesis proposal. You could also write the introductory sections of a journal article, but this time for a different audience (write it for the practitioners in your field as opposed to for fellow researchers, for example).

If you choose genres other than JA, you may need to analyze the introductory sections in your target genres before your writing. If you choose to stay with the JA genre but would write for different audiences, think about the needs of these audiences carefully. Talk with me if you are not sure about how to write these two additional versions.

##### *Step 3*

After you have written the three versions, analyze your own writing as if you were analyzing others' writing in your genre analysis tasks. Do not list everything you have done in your writing. Instead, point out about five features and explain why they are noteworthy. How have these features helped you achieve your purposes in your text? How have they helped you meet the needs of your readers? In other words, view this step as your chance to explain to me how you have used certainly noteworthy features to achieve your rhetorical purposes and meet your readers' needs. You could point out more than five features, but the quality of your analysis is more important than the quantity is.

Similar to how you have carried out the genre analysis tasks, you can use the editing and comment functions in Microsoft Word for this step.

##### *Step 4*

After you have submitted your writing and your analysis of it to me, schedule a conference with me for us to talk about your writing.

### Writing on Discipline-Specific or-Related Topics or Content Materials

As shown in Figure 5.1, the course participants were asked to practice writing a JA introduction based on a current, future, or a recently completed research project (and an additional section in a subsequent assignment). This aspect of the assignment adheres to a basic requirement for designing classroom-based writing tasks—validity (White, 1994). Because I emphasize exploring genre-specific features of discipline-specific writing, and students are required to extensively analyze genre exemplars from their fields (see Chapter 4), asking students to produce discipline-specific writing helps ensure construct validity—the consistency between what is required, what is learned, and what is being evaluated (Hamp-Lyons, 2003; Hyland, 2003). In fact, asking students to write something related to their research projects is quite common in graduate-level research writing courses, as we have seen in my review of others' writing tasks and in Freeman (2016), Starfield and Mort (2016), and Tierney (2016).

### Writing for Different Audiences, for Different Rhetorical Contexts, or in Different Genres

Instead of writing only one introduction, course participants were asked to write three introductions based on the same research project or the same content material but to tailor their introductions to three rhetorical contexts that may fit their current or future needs (see Step 2 in Figure 5.1). The rhetorical contexts could be different in the target genres (a journal article, a proposal, and a thesis, for example) or in the audience's needs (to write for an audience consisting of practitioners, a non-specialist expert audience in a parallel field, and a specialist audience in one's own area of research).

The assignments discussed in Cargill, Cadman, and McGowan (2001) and Swales & Feak (2009, 2011, 2012a) mainly requested students to write for different audiences. However, I have allowed for the possibility of writing the introductory sections in different genres—that is, although only JA introduc-

tions had been discussed extensively in class up to this writing task, I encouraged the students to use their rhetorical consciousness developed through analyzing the JA introductory sections to analyze and then write the introductory sections of related research genres, such as those in a grant proposal or in a thesis. Instead of asking students to write different versions at the same time, students were asked to work on the JA introduction first as the presumed baseline version (see Step 1 in Figure 5.1) before experimenting with the different rhetorical parameters in the other versions. Doing so can help make this task more manageable, especially to the less confident research writers, than asking them to handle three versions simultaneously.

This aspect of the assignment adheres to another basic requirements for designing classroom-based writing tasks—interest (White, 1994). The interest level can be seen in my observation of students in previous courses who were intrigued by the challenge of showcasing three different ways to perform a step in a move, such as claiming centrality. They realized that they had to reexamine their previous analyses of the genre exemplars to ascertain how variations in the rhetorical organizations and lexico-grammatical features could be related to the rhetorical purposes in a particular step or move. As one student put it, "It's almost like trying to solve an engineering problem!" Another student mentioned that her research group had recently submitted two research papers to two different journals based on two different angles that arose from the same research project, so she understood the relevance of this requirement.

Incidentally, years after I first required students to write for different audiences or in different genres, I noticed that two behavioral ecologists (Hailman & Strier, 2006) describe the "desirability of spreading over different readerships separate but related papers on a given topic" (p. 96). They point out that this consideration frequently applies to publishing papers based on a doctoral dissertation, where an author may want to "alert workers in several different fields" to one's research. They give the example of three different chapters of a thesis

on birdsong going variously to an ornithological journal, a behavioral journal, and a journal devoted to bioacoustics (p. 96). Their description certainly lends support to this dimension of the assignment.

#### Analyzing One's Own Writing

One dimension of writing tasks in the graduate-level research writing classroom is to task students with analyzing the valued genres before writing, as noted in a previous section in this chapter. In my assignment, students also need to analyze genre samples before they write (see Chapter 4). I have also incorporated another type of analysis that has not been reported in the literature—students are asked to analyze, or annotate, the three versions of their own writing by commenting on some noteworthy features (see Step 3 in Figure 5.1). Their analysis helps me and themselves understand how certain rhetorical organizational or lexico-grammatical features were intentionally used to address the needs of different audiences or to achieve diverse rhetorical purposes in different genres. In addition, comparing students' writing tasks with their self-annotations as well as with their genre analysis tasks helps me determine whether students have developed any rhetorical consciousness of how genre is influencing their writing (the learning objective about developing genre awareness as described in Chapter 2) and whether any genre-specific features learned through in-class discussions and out-of-class genre-analysis tasks may or may not have been integrated into the concrete organizational patterns or the lexico-grammatical features (the learning objective about the awareness of genres as seen in Chapter 2).

#### Conferencing as Part of the Writing Process

As noted in a previous section in this chapter, engaging students in the writing process is a dimension of writing tasks in the graduate-level research writing classroom. In my case, engaging students in the process of writing takes the form of conferencing, as seen in Step 4 in Figure 5.1. I typically let students know that I would provide some comments and questions related to the rhetorical organizations and the lex-

ico-grammatical features on their first drafts before returning them. Then, we would have a writing conference—a form of discourse- or writing-based semi-structured interview—that would be driven by questions such as

- Your version 2 is much shorter than Version 1. Why?
- You don't explain this term here in Version 3. Why not?

In other words, the questions are based on what may have appeared to me as intriguing, problematic, puzzling, or just noteworthy in their first drafts. I aim to use these and other similar questions to gauge whether the students are able to verbalize any rhetorical considerations behind their texts. Questions and comments can then lead to suggestions on improving their papers such as:

- You criticize the Smith study as *inadequate*. Do you feel you need to explain more here to support your claim? Why or why not?
- You say here that this study is *crazy*. Is *crazy* a word that researchers in your field often use to criticize others' works? What would be a more common word for that purpose? Why do you think it is more suitable than *crazy*?

Others have mentioned the importance of conducting conferences with graduate student writers, but the goal seems to be to understand students' content area better (e.g., Frodesen, 1995; Tierney, 2016). For example, when describing how to offer individual consultations to graduate student writers, Tauber (2016) emphasizes the importance for writing specialists to “act as a kind of thought partner—reflecting and amplifying clients' ideas in order to help them clarify their concepts and arguments” and to serve as “an immediate audience where clients can work through a text until they are ready to show it to their advisor” (p. 649). In a similar vein, others have pointed out that writing specialists should help students to “ask their [disciplinary] supervisors better questions” so as to help students to “use their supervisor's time more efficiently”

when working with graduate students' writing in individual conferences (Freeman, 2016, p. 224). In my case, the conferences certainly constituted a unique opportunity for me to understand and occasionally to help students reflect on and to amplify the ideas and content materials in students' discipline-specific writing, a point suggested by Tauber (2016). However, the more important goal was to use the conference as part of the writing process and as an opportunity to gauge students' development of rhetorical consciousness, if any, through focusing on the genre-specific features in their writing, a goal consistent with the learning objectives in research writing classes (see Chapter 2).

### How Do the Four Dimensions Assist in Understanding and Evaluating Students' Discipline-Specific Writing?

To what extent can the four dimensions of the writing task work in conjunction and how can they help instructors understand and evaluate students' discipline-specific writing? To answer these questions, I present the case of a former student with the pseudonym of Fengchen, who was a PhD student in electrical engineering from China in a previous graduate-level research writing course (Cheng, 2006a, 2007b, 2008a). My analysis focuses more on my reflections of what I have learned as an instructor. It is worth noting here that, because of the focus on student learning (as opposed to teacher learning) that was part of my previously published research (Cheng, 2006a, 2007b, 2008a), many of the reflections on writing tasks and on teacher learning that constitute the focus of my discussion here have not been published. Since the student's writing serves more as the conduit for me to discuss writing tasks and to reflect on teacher learning, I will not present any excerpts from those studies although I will describe the student's writing in the relevant places. Interested readers should refer to Cheng (2006a, 2007b, 2008a) for more focused discussions on student learning.

How can the four dimensions of writing tasks that have been built into the sample writing assignment sheet in Figure 5.1 help us understand and evaluate students' discipline-related writing? First, the four dimensions in the writing assignment can help us understand students' developing sense of audience and rhetorical context. For example, at the required writing conference (see Step 4 in Figure 5.1), Fengchen explained that he wrote three versions of introductions for three different journal articles based mainly on what he perceived to be the differences in the three projected audiences. In his required annotations of the three versions (see Step 3 in Figure 5.1), he explained that the first version was written for a general audience in the broad field of "communications." Because the field of communications may include researchers from electrical engineering to those from "information technology," he stated that the readers of this first version may read it as a general-interest article and may need more background information on the topic (Fengchen's annotation of Version 1). He pointed out that, by contrast, the second and the third versions both targeted specialist audiences who might be more familiar with his specific topic than the general audience of the first version may be. Between the two specialist audiences of the second and the third version, he perceived the audience of the third version to be the "experts" who may be more invested in and, consequently, may be more critical of his research—the "finding-fault group"—in his words (The writing conference transcript).

We can see how the annotations and the writing conference helped me to tap into how the student had rhetorically constructed the three audiences for the three introductions. In fact, I learned a lot from his explanations in his annotations and from him during the writing conference. When we met, I was able to describe to him a parallel situation in which an ESP researcher may target three possible audiences with different aspects of a genre analysis study: the general audience of researchers in applied linguistics (the first version), the more specialized audience of researchers in second language writing and EAP (the second version), and the third audience

of researchers whose research focuses on ESP genre analysis (the third version). We then had an interesting conversation about the similarities between these parallel situations. I asked him whether the third audience was necessarily more critical or more prone to “finding fault,” as he had claimed in his self-annotations, than the first or the second audience may be. Maybe the third audience would view it as a mission to nurture the research in the highly specialized area so that the area would gain more visibility among researchers in the broader field? Although we were not able to reach a consensus about this point, I found the student’s projection of the three audiences, as I came to understand it through his annotations and the discussion at the writing conference, very useful. With his permission, I have since shared this way of projecting the different audiences for one’s writing with students in later courses and workshops, and some students have thus been able to construct their audiences in a similar way.

The discussions with Fengchen and with other students have also helped draw my attention to how established scholars in different fields may view the relationships between academic journals and audiences. For example, I noticed how two scholars in physical geography perceive the audiences of different journals in a way slightly different from how Fengchen or I did. Specifically, Parsons and Knight (2015) present the example of the journal *Permafrost and Periglacial Processes* as “a must” for specialists working on periglacial geomorphology. However, apart from such a specialist journal, researchers working in this field may want to communicate to a wider audience if they have something to report that has wider significance: “The journal *Nature* doesn’t have many articles on periglacial geomorphology, but any that it does have will probably be very important” (p. 45). Reporting to a more general audience would seem more significant in this case, and the prestige of the journal *Nature* may be a variable as described by Parsons and Knight (2015), something Fengchen or I may not have taken into full account when we considered the different audiences based on his writing.

Second, the four dimensions in the writing assignment can help us understand the genre-specific features in students’ writing. More important, they can give us a better sense of how these genre-specific features may or may not have been used with clear rhetorical considerations in mind. This point becomes clear if we look at how Fengchen reviewed the literature in the three versions.

Specifically, in his literature reviews in the three versions, Fengchen reviewed three Media Access Control (MAC) protocols for distributing bandwidth resources that were all protocols of the wireless access system. These resources are Packet Reservation Multiple Access (PRMA), Idle Sense Multiple Access (ISMA), and Distributed-Queuing Request Update Multiple Access (DQRUMA). For ease of reference, we will call these three protocols Protocol A (PRMA), Protocol B (ISMA), and Protocol C (DQRUMA), respectively. (Readers interested in reading Fengchen’s writing could look at Cheng, 2007b, where I present three excerpts from his three introductions in which he reviewed the three protocols.)

It is not important to understand what these protocols actually were here although the relationship among them will become clearer, especially when we look at the student’s explanations in his annotations and at the writing conference later. In Version 1, which was for a supposedly general-interest audience of a broad-based academic journal, Fengchen presented the functions and inner systems of each protocol before he evaluated it, including pointing out its problems. Specifically, he followed this organization in his review of the three protocols: Protocol A -> Protocol B -> Protocol C. For example, he presented Protocol A this way:

One of the earliest MAC protocol is [Protocol A] proposed by Goodman in [1]. In [Protocol A], the time axis is divided into two types of time slots: the idle slot and the reserved slot. If a slot is used by a data packet, it returns to the idle state; while if the slot is occupied by a voice packet, it remains at the reserved state until the whole voice frame is over.



He then critiqued this protocol this way: “However, due to the frame construction in [Protocol A], the system displays inefficiency when the bit rate of the services is low” (Fengchen’s writing sample).

His annotations of this version allowed me to understand the rhetorical considerations behind this particular rhetorical organization—he was aware of at least two rhetorical purposes for reviewing the protocols. These were to (1) show the readers the advantages and disadvantages of each protocol and to (2) imply that his specific project that he was to present subsequent to the literature review was “a refinement of other person’s work” (Fengchen’s annotation of his writing). More important, his annotations showed me how he was aware of the way these two purposes had been shaped by the needs of the readers of this particular version—specifically, a better understanding of all three of these protocols and in that particular order could prepare the readers relatively unfamiliar with this research area to understand the rationale for his specific project better.

I also noticed from his annotations how he felt that the rhetorical pattern adopted in this version had helped him coordinate these rhetorical considerations effectively. In his annotations, he pointed out that the item-by-item, review-critique pattern adopted in this version was a “normal way to review the previous research” (Fengchen’s annotation of Version 2). In other words, to him, this pattern represented a baseline one that RA authors would often use to review existing studies, including the protocols he was reviewing. It, thus, only seemed logical that the least specialized or sophisticated audience be presented with the baseline pattern first. In the writing conference, he explained that this “item-by-item” pattern could ease his comparatively generalist target audience into the topic because this intended audience may not be very familiar with his specific research topic. “There is no need to mix them [the protocols] all,” he explained in the writing conference, because “they [the projected generalist readers of this version] may become confused because they are not ready” (The writing conference transcript).

I noticed that, in Version 2 of his Introduction, Fengchen adopted a pattern of reviewing the literature that was different from that in Version 1. Specifically, he presented both Protocol A and Protocol B and then critiqued them together. After that, he described Protocol C and critiqued it. It seems that the main difference between Version 1 and Version 2 is that he reviewed Protocol A and Protocol B separately in Version 1 but combined them as a unit to review together in Version 2. His annotations, again, helped me notice his awareness of the rhetorical purposes driving this rhetorical (re)organization. According to him, he intended to use “both of these two researches ([Protocol A] and [Protocol B])” as “negative examples to contrast with [Protocol C]” (Fengchen’s annotation of Version 2). He reviewed Protocol C separately because he felt that it was, in his view, more “efficient” than the first two protocols. As a result, Protocol C, though with its own faults, was the one he intended to “confirm and make an improvement on” (Fengchen’s annotation of Version 2). He pointed out in his annotations that, since the overall purposes of “these three paragraphs are not only the literature review but also serve the function of establishing the research gap and show the road for further study,” the new rhetorical (re)organization may, in his view, be more effective.

I learned from the discussion at the writing conference how his awareness of the rhetorical purposes might have, again, interacted with his awareness of his readers’ needs. He mentioned that, since the readers of Version 2 represented a more specialist audience than that of Version 1, they might be more familiar with this special topic. Therefore, “mixing the protocols” a bit, meaning combining Protocols A and B in his review, in the second version could actually help clarify and even highlight the advantage of Protocol C over the first two without the risk of confusing the readers (The writing conference transcript). In a word, his writing, his annotations, and the discussions at the writing conference helped me realize how Versions 1 and 2 were equally motivated by his rhetorical considerations, such as his awareness of the rhetorical purposes of these two versions, of the background knowledge of

the two projected audiences, and of the resulting needs and reactions of the audiences. From this case, we can see how asking students to write multiple versions can afford instructors of research writing a unique opportunity to understand and evaluate not just learners' use of genre-specific organizational and linguistic features, but also their rhetorical knowledge (or the lack thereof), defined as the ability to consider "the specific audience for and purpose of a particular text, and how best to communicate rhetorically in that instance" (Beaufort, 2004, p.140). After all, the ability to turn genre-specific features one knows into the resources for meeting the needs of multiple audiences points to a very sophisticated level of writing skills for any writer, graduate-level research writers included.

Third, the four dimensions in the assignment sheet can offer instructors a valuable opportunity to understand learners' writing performance through looking at the intentionality in students' writing. Specifically, Fengchen's annotations of his own writing have helped me understand whether the use of certain features was accidental or purposeful, thus giving me a sense of any intentionality or agency behind his writing. They have also helped me notice the rhetorical knowledge driving any intentional use of the genre-specific features. This point becomes evident if we look at Fengchen's comments on the distinctions between Version 1 and Version 3 in which he switched the order of the two protocols. Specifically, I noticed that the rhetorical pattern in Version 3 was different from those in Version 1 and Version 2. In Version 3, Fengchen returned to the "item-by-item" pattern adopted in Version 1 where each item was reviewed and critiqued separately. However, in contrast to Version 1 where he first reviewed Protocol A before he reviewed Protocol B, in Version 3, he first reviewed Protocol B before he reviewed Protocol A. When I first read Version 3, I thought he was just shuffling the three protocols aimlessly as a trick to complete the potentially challenging task of producing three introductions based on the same material. After reading his writing, examining his self-annotations, and discussing

with him at the writing conference, however, I started to realize that the way he switched the order in which Protocol A and Protocol B were reviewed in Versions 1 and 3 was, again, underpinned by his rhetorical considerations, and the switch was purposeful, rather than accidental.

For example, in his self-annotations, Fengchen explained that the inner logic of Version 3 was "like a struggle from wired to wireless." Invoking his disciplinary knowledge, he explained that Protocol B had become a "primitive theory in wireless field" because it was based on wired, as opposed to wireless, cable communication. Placing Protocol B at the beginning, therefore, allowed him to follow the disciplinary insider's logic of moving from a *wired* (presumably primitive) protocol to a *wireless* (supposedly sophisticated and advanced) protocol in his review of the three protocols. The question, then, becomes why he did not do the same for Version 1. Interestingly, he commented in the writing conference that such an organization may have been wasted on the readers of Version 1 because they may not be aware of, and may not need to be burdened with, the insider "logic of this special area." He believed that a chronological order of moving from Protocols A to C, as he followed in Version 1, would suit the needs of that generalist, broad-based audience better. By contrast, he felt that the pattern adopted in Version 3 was a better way to not only review the three protocols to meet the needs of the highly specialist audience of Version 3, but also to show these potentially skeptical "advanced readers" (meaning the more skeptical expert reader) his awareness of the "logic," or the implicit disciplinary narrative, that gave rise to his specific research topic (The writing conference transcript).

Finally, the multiple versions targeting different audiences, together with self-annotations and writing conferences, can help us tackle the issue of discipline specificity in student writing to some extent. Such a specific pedagogical reality presents a special challenge for assessing students' writing performance in my case and a possible hurdle faced by many other teachers of advanced academic writing: What do we do

with the discipline-specific writing samples our students produce in research writing courses? If we are not sure we can fully understand the content of this writing, how can we evaluate it?

Swales and Lindemann (2002) have pointed out that “no instructor, however polymathic and experienced, can ever hope to unlock the huge door” of the entire academic universe of discourse of students from various disciplines (p. 118). Although such an argument can certainly ease our minds regarding these questions, some have pointed out that instructors of graduate-level writing may not want to “distance ourselves from the content domains in which graduate researchers are seeking to master academic writing in English” (Allison et al., 1998, p. 211). As a result, instructors may still be interested in knowing how these questions could be addressed.

Fengchen’s case shows how encouraging and guiding students to write for different audiences based on the same research project or content, coupled with students’ self-analysis and explanations of their writing through writing conferences, can help instructors assess students’ discipline-specific writing to a certain extent. To be honest, after reading the three versions, I did not feel that I had fully understood what Protocol A, Protocol B, or Protocol C were (I still don’t). But that may be beside the point; I am not an electrical engineer and never will be. However, as a writing instructor, I was able to learn from the strategic (re)organization of the three protocols and, more important, from the student’s annotations and explanations during the writing conference what the “vital problems” and the “contributions” of each of these protocols, at least as articulated by the student, were. In addition, by reading his texts and his annotations closely and by posing various questions during the writing conference, I was able to understand how he articulated the internal logic linking the three protocols—the logic that propelled him to adopt, in his words, a “stepping-forward” style of argument in which “the later ... [one] viewed the article [protocol], the more consent (meaning his positive attitude) ... [one shares] about

the research.” His explanation allowed me to see how he was attempting to follow what he perceived to be the disciplinary insider’s logic (The writing conference transcript).

Being able to guide students to articulate their discipline-related way of arguments and understanding such arguments through students’ articulation may be more productive than feeling overly anxious about or being fixated on the technical details. I believe that writing instructors who remain intellectually curious can figure out the discipline-based arguments that the students make in their writing, especially if they are willing to talk with their students and are patient enough to listen to and help their students articulate their rhetorical and disciplinary reasoning behind their texts (see Allison et al., 1998, for a similar argument). Although instructors may still not be able to judge whether the arguments or logic articulated by their students are technically accurate, that may never be the point, as long as instructors keep in mind the goal of teaching graduate-level research writing, which is to help students raise their rhetorical consciousness. As an instructor, I would be perfectly happy if Fengchen or other students are able to articulate the logics and arguments in their writing to their disciplinary professors, even if such logics or arguments may not be perfectly in sync with that perceived by their disciplinary professors. As noted by others, it would be the responsibility of the disciplinary professors to help students with content issues, but such a job would certainly be made a lot easier if their students have become a lot more rhetorically aware through graduate-level research writing instruction (Freeman, 2016; Sundstrom, 2016; Tauber, 2016).

In sum, the case of Fengchen has shown how incorporating the four dimensions into a writing assignment in graduate-level research writing instruction can offer instructors unique opportunities to understand and evaluate students’ writing, including discipline-based writing. I hope that reflecting on these and other related dimensions could help others develop writing assignments that will meet the needs in their own pedagogical contexts.

### Rubrics for Evaluating Discipline-Specific Writing

In a report of how an international graduate student became a successful writer, Phillips (2014) noticed that the student benefitted very little from a cross-disciplinary graduate-level writing course for multilingual writers. The student received little positive feedback from his teacher. Phillips observed that the instructor identified problems like “lang. is non-idiomatic” and “sentence structure” but rarely offered the student alternative language or any particularly constructive comments towards revision or future writing projects (p. 78). A case like this points to the importance of providing written comments on students’ work and to having a set of criteria on which to base that feedback.

The literature has included some reports of grading rubrics targeting discipline-specific academic writing. Stoller and her colleagues, for example, discuss how they developed and validated a set of grading criteria to measure learning outcomes in their *Write Like a Chemist* project funded by the National Science Foundation in the United States (Stoller, Horn, Grabe, & Robinson, 2005). Their final grading criteria encompassed both those unique to chemistry writing (e.g., “properly formatted tables, schemes, figures”), those typically required by English faculty (e.g., “free of surface errors”), and those deemed as important by both parties (e.g., “correct grammar, tense, ... and scientific abbreviation, superscripting, and subscripting, etc.”) (p. 97). Their grading standards and analytic scale were sensitive to their context of a large-scale, grant-supported project in which undergraduate students’ chemistry research papers would be graded consistently by faculty members in multiple institution across the United States. Although Stoller et al.’s rubric (2005) was designed for undergraduate students in chemistry, the practice of encompassing discipline-specific criteria as well as criteria by English instructors can be adopted and adapted for graduate-level research writing classes.

Elsewhere, other instructors have developed rubrics specific for evaluating graduate students’ writing (e.g., Hyland, 2004b; Paltridge, 2001). As early as 1998, Allison et al. (1998) developed a set of criteria that forms the diagnostic assessment profile for graduate student writers. Although these criteria were based on their perceptions of graduate students’ writing problems at the University of Hong Kong rather than on any specific writing assignment, the four major criteria (communicative success, substantiation, discourse elements, and editing) can serve as the basis for grading rubrics for evaluating graduate students writing.

In terms of my writing assignments, I used a set of grading criteria like those in Figure 5.2. Readers may notice that the criteria consist of a set of questions. Some of them speak to the overall rhetorical organization and the moves/steps in it (Questions 1 and 2). One question aims to draw students’ attention to the lexico-grammatical features specific to their fields that they were supposed to practice using in their writing (Question 3). Other questions point to some of the general writing quality, such as coherence and cohesion (Questions 4 and 5) and surface errors (Question 6). For their annotations, I included two rather general questions to draw their attention to what they should be doing in their annotations (Questions 7 and 8).

I included these questions because they reflected what I emphasized in students’ writing, and I intentionally kept these questions general so that I could have room to expand on these questions when commenting on their work orally or in writing. I usually wrote down some substantive comments based on each of the criteria after reading their drafts.

Readers planning to adopt an assignment similar to that in Figure 5.1 can adopt and adapt the rubric in Figure 5.2.

An additional source of information for developing rubrics to suit one’s needs is the “guide for authors” of academic journals. These guides often describe the requirements for each section of the journal article, and some of these requirements could be used as grading criteria. Instructors could look at multiple guides and choose common requirements as rubric criteria. For

**Figure 5.2:** Sample Grading Criteria for the Tasks Described in Figure 5.1

Your paper:

1. Are the three versions sufficiently different? (x points)
2. Do they include the moves and steps that are often used in the genre or genres that you target with the three versions? (x points)
3. Have you used some of the linguistic features that people often use in the genre or genres that you target with the three versions? (x points)
4. Have you used clear topic sentences and transitions between paragraphs? (x points)
5. Have you maintained strong logical connections among the sentences in each paragraph? (x points)
6. Have you carefully edited your paper for grammatical, mechanical, document design, and citation errors (pay special attention to the requirements in your field)? (x points)

Your annotations:

7. Have you explained clearly why and how the three versions are different (audiences, journals, genres, and others)? (x points)
8. Have you pointed out at least five noteworthy features that you have used in your writing and explain why you have used them that way? (x points)

example, I have noticed that many journals from which my students selected their journal articles for analysis (see Chapter 4) often guide authors to offer sufficient details in the Methods and Material section of their papers so that the work can be reproduced. At the same time, authors are told to include only a reference if they adopted a method that had already been published, and only changes to the previously published methods should be described. This requirement could then become a grading criterion. If instructors assign students to collect journal articles to analyze (see Chapter 3) or encourage students to target specific journals in their field with their writing (see this chapter), the guides for authors in these journals nominated by students will be very useful for rubrics development.

### Questions for Reflection and Discussion

1. This chapter introduces four dimensions researchers and practitioners have incorporated into their writing tasks in the graduate-level research writing classroom. Among the four dimensions, which one stands out to you as the most important—a dimension that you feel compelled to incorporate into the writing tasks in the graduate-level research writing classes you teach or will teach in the future? Why?
2. Think of a writing task you have assigned in your own graduate-level writing class or one that you have been asked to write when you were in a graduate-level research writing class. What was the task like? What did you, as the instructor, ask your students to write, or what were you, as the student, asked to write? Does the task include any of the four dimensions described in this chapter? Does it include any other dimensions that have not been described in this chapter? What may be the reasons behind the additional dimension or dimensions?
3. This chapter describes a writing assignment with all four dimensions incorporated into it. What do you think of this assignment? In your view, what are its strengths, if any? Would you modify this assignment in any way if you assigned it in a future writing class? What would you change, and why? For example, would you be able to achieve the same pedagogical purpose if you asked your students to write only two versions instead of three? Why or why not?
4. Have you used any rubrics to grade graduate-level research writing, or, if you have not taught before, have others used grading rubrics to grade your graduate-level research writing? Describe the rubrics. What criteria do they include? What are the strengths and weaknesses of these rubrics compared with the one in Figure 5.2?