Learning about research writing across the disciplines: Pathways, problems, and possibilities

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The need to learn about discipline-specific writing

During a conversation, this question came up: “what should we know to become an effective ESP writing teacher?” I blurted out this answer: “Everything!” I was perhaps thinking of Mary Norris, the copy editor for The New Yorker and author of Between you and me: Confessions of a Comma Queen. She describes the job of a copy editor as “drawing upon the entire person: not just your knowledge of grammar and punctuation and usage and foreign languages and literature but your experience of travel, gardening, shipping, singing, plumbing, Catholicism, midwesternism, mozzarella, the A train, New Jersey. And in turn it feeds you more experience” (Norris, 2015, p. 12). To me, that’s not too far off from the knowledge base of an LSP writing teacher. “Oh. Come on. That is an insanely lofty and completely unattainable goal”, came the good-humored protest. The protester does have a point. Nobody can know everything. One of the pleasures of being an LSP practitioner and a writing teacher is that there is always something new to learn. What is this next “something new”, though? Since then, I have been thinking about this question. As LSP practitioners who are also researchers, we can look at the literature. There, LSP teacher education researchers have sketched out multiple topic areas that can form our knowledge base (Basturkmen, 2014). We can also look carefully at our classes. When Kuteeva (2013) looked at one of her graduate-level writing classes, for example, she saw many things; one of them was the “very wide spectrum of epistemological traditions… ranging… from lab-based osteoarchaeology to logic-driven philosophy to source-based history or musicology to emerging interdisciplinary fields such as fashion studies or performing arts” her graduate students represented (p. 86). Indeed, having a
multidisciplinary mix of students in the same writing class or in academic support centers is a phenomenon familiar to many LSP practitioners as described in Cheng (2018) and as more recently noted by Douglas (2020). The diverse disciplinary outlooks and the intersubjective responses to a shared task in such classes are valuable (e.g., Swales, 2019), but the challenges facing LSP practitioners are also considerable. How to gain and increase one’s knowledge of the discipline-specific nature of writing becomes a felt need by many who face such challenges. Such knowledge is part of what Ferguson called LSP practitioners’ “specialized knowledge” (Ferguson, 1997, p. 84). Distinct from “specialist knowledge” (p. 84), which refers to knowledge of the content of the students’ disciplines or subjects, LSP practitioners’ specialized knowledge may include their knowledge of their students’ disciplinary cultures, knowledge of the epistemological basis of different disciplines, and knowledge of students’ valued genres and discoursal practices.

In this forum article, I will engage with some of LSP research and practices in the past three decades and suggest three pathways to develop such knowledge. The pathways, though each with its problems, can help LSP practitioners increase their knowledge of discoursal practices owned and articulated by those across the disciplines. These three pathways are (1) to interact with faculty and advanced graduate students, (2) to read published findings on research genres, and (3) to study meta-genres. The pathways are, by no means, mutually exclusive. One is not necessarily superior to the others. They are far from the only available pathways. In fact, in my concluding thoughts, I will look at how LSP practitioners can bring together these pathways and how some have followed other pathways. Regardless of the specific pathways, to increase, and to learn to continue to increase, one’s knowledge of the expectations for effective communication in specific discoursal contexts is important for all LSP practitioners in most pedagogical contexts. LSP practitioners intentional in their efforts to build such knowledge are more likely to be attentive and thoughtful practitioners in their pedagogical settings.

**Pathway 1: To interact with faculty and advanced graduate students**

This pathway is familiar to many LSP researchers and practitioners. To interact with faculty and advanced graduate students includes interviewing
them. Swales’ (1998) conversations with his faculty informants in biology, automobile crash safety research, dentistry, art history, and other disciplines revealed to him the “constellations of genres” (p. 14) in these disciplines. The faculty informants revealed to him the “perceived quality differences and rankings” of these genres (p. 18, original emphasis). Rogers et al. (2016) focused on a highly valued genre among the constellations of research genres, the dissertation, and interviewed 24 faculty members across doctoral programs about their experience in writing their dissertations, the “shape and conventions” in the dissertation in their fields, and the most challenging areas of dissertation writing, among other questions (p. 55). These questions can be adapted by LSP practitioners to interview faculty members about other valued genres.

Other than genres, LSP practitioners can also ask faculty about discipline-specific discoursal practices in general. For example, the faculty advisors Belcher (1994) interviewed revealed to her the complex audiences that articles in applied mathematics should target and the critical stance students in literary studies should adopt in their writing. The 30 interviews with historians and computer scientists working in Finland and Sweden by Hynninen and Kuteeva (2017) offer insights into these disciplinary insiders’ perceptions of “good” writing in English in their fields; their reported practices as authors, reviewers, and proofreaders; and their views on the discrepancy between the ideals and realities of research writing in English.

Many advanced graduate students are “highly acculturated into the genres of their discourse communities” (Lee & Swales, 2006, p. 72) with “highly developed analytical skills in their fields” (Swales & Lindemann, 2002, p. 118). These students, who are often in LSP practitioners’ classes, can also offer valuable information about the discoursal practices in their fields. Swales (2019), for example, views the doctoral students in his writing classes as his “lab” and one of his “data sources” (p. 81). He shows how a question such as “Which is better – a simple experiment or a complicated one” has helped him understand a little better the disciplinary differences among his students (p. 81).

Surveys and questionnaires are another form of interacting with disciplinary insiders about disciplinary discoursal practices. They can be small-scaled ones for students to fill out or take back to their faculty to fill out. They can be research-oriented ones, such as Pinkert’s (2020) survey of faculty and graduate students in 81 graduate programs at a US university. 324 responses
from 48 departments across nine colleges provided rich details about the writing activities, writing support, and writing courses offered in these departments, as well as these faculty’s insights on graduate students’ development of research writing skills.

In fact, some have combined surveys with interviews to tap into faculty’s perspectives on writing in their disciplines. Caplan (2020), for example, conducted an online survey to ask the MBA faculty at his university to rate the importance of 23 learning tasks. He also conducted four think-aloud interviews with faculty. The survey and interviews allowed Caplan to see how the faculty perceived the importance and difficulty of various skills and genres. The faculty members nominated case analysis as the valued genre and described its perceived rhetorical purpose, rhetorical move pattern, what each move includes, and what strategies writers are expected to use in order to write this genre successfully.

In addition to interviews and surveys, interacting with faculty members can involve interdisciplinary materials developments and co-teaching. Stoller reported collaborating with chemistry professors on genre and text selection, genre analysis, materials development, course design, course delivery, and assessment (Stoller & Robinson, 2013). Their collaboration enabled them to zero in on the genres valued in chemistry, such as research articles (RAs), proposals, and posters, and arrive at a nuanced analysis of RAs in chemistry. The collaboration enabled them to articulate the reasons why the chemistry RA genre served the needs of the undergraduates in a writing course at their university. The results of their collaborative analysis of the genres valued in chemistry were later developed into a textbook used widely by chemistry students and faculty (Robinson et al., 2008). Similarly, Cargill, an applied linguist, has collaborated with an ecologist to offer numerous writing courses and workshops in Australia and in China. The ecologist guided novice writers to act and write like a disciplinary insider in their workshops, all through bringing in his rich experience of reading, writing, interacting with peers, and negotiating the publication process as a published scholar in ecology (Cargill et al., 2018; Li et al., 2019).

Interacting with faculty, advanced students, and other disciplinary insiders through interviews, surveys, and co-teaching may not be feasible for some LSP practitioners, especially if such interactions are to be “contextualized”, “prolonged”, and “repetitive”, as advised by Johns (1997, p. 108). The lack of status, resources, and “bandwidth to engage in… cross-disciplinary work”
“institutional politics and funding silos” may be the hurdles on the road to forming meaningful partnership with disciplinary insiders (p. 632). Some introverted LSP practitioners may be more comfortable with texts than with people and, thus, may not have the kind of needed personality or drive to reach out to faculty to learn about discoursal practices in their disciplines.

In addition, some faculty and advanced graduate students may not be a helpful source of information about writing in their disciplines. Their notions about language and writing may be “from their school days” (Mauranen, 2022, p. 12). Such notions can, thus, be naive and outdated. Many disciplinary experts may not have been intentionally introduced to the expectations and processes of writing in their fields as part of their graduate training (LaFrance & Corbett, 2020, p. 298). Some supervisors have been found to be even ill-equipped to offer constructive feedback on the drafts of the part-genres in their students’ dissertations (Basturkmen et al., 2014). Others have been noticed as unaware of the criteria by which they evaluate students’ writing (Caplan, 2020). These observations cast doubts on whether these “disciplinary insiders” can articulate their insights about discipline-specific discoursal practices in a way that is helpful to LSP practitioners.

That said, interacting with faculty and advanced graduate students to learn about discipline-specific writing remains a valuable pathway as seen in the abundant insights gained by the LSP practitioners who took such a pathway reviewed in this section and reported elsewhere. Meanwhile, it could be further complemented by other pathways, two of which I describe below.

Pathway 2: To read published findings on research genres

As pointed out in Cheng (2018), the findings from genre analysis studies by LSP researchers, applied linguists, and writing scholars on research genres can help increase our knowledge of discipline-specific writing. Swales’ (1990, 2004) pioneering analyses of the RA and other research genres have made genre analysis of research genres across the disciplines in the ESP, or Swalsian, tradition “a generative area for… scholarship” (Graves et al., 2013, p. 422). In Cheng (2019), I reviewed 36 genre analysis studies published in or before 2018 in English for Specific Purposes (ESPj) and the Journal of English for Academic Purposes (JEAP). The disciplines represented range from agricultural
sciences, applied linguistics, biological engineering, chemistry, computer science, law, literary studies, medicine, neurology, to sociology, among others. The studies have focused on the RA as a whole (e.g., Kwan, 2017), part-genres such as the result section (Brett, 1994), or some of the rhetorical moves within a part genre, such as the description of experimental procedures (Lim, 2017). Notably, since my systematic review published in 2019, genre analysis studies of RAs and other research genres continue to appear in major LSP journals, a phenomenon easily noticeable to those who browse through journals such as ESPJ, Ibérica, or JEAP.

When reading these studies to increase our knowledge of discipline-specific writing, we may need to keep in mind some caveats. We may need to pay attention to how genre analysts justify the needs for their genre analysis studies. Many of these studies, as I noticed (Cheng, 2019), often provide insufficient details about any challenges students face when writing their RAs or RA part-genres. Consequently, the pedagogical implications offered in these studies tend not to be grounded in any pedagogical needs and may end up being oft-repeated pedagogical principles that many LSP practitioners may have already been familiar with. Indeed, Swales has expressed his “personal disappointment with studies of genre in the leading ESP/EAP journals that fade away before offering well-articulated pedagogical applications” (2019, p. 78).

The observation that many genre analysis studies may not have been as responsive to needs and the corresponding pedagogical implications as hoped for can also be seen in the fact that many of these studies focus on RAs in TESOL/applied linguistics or language-related disciplines. Among the 36 studies I reviewed (Cheng, 2019), ten focus on such fields. These fields are where most LSP practitioners receive their professional education but are often not the fields represented in many classes LSP practitioners teach. This phenomenon prompts Swales (2019) to ask why “so many people apparently believe that they are making a contribution to our knowledge by subjecting contemporary ESL/Applied Linguistics texts (itself a wide-ranging and rather “fuzzy” disciplinary grouping) to various kinds of analysis” (p. 76). He pinpoints such studies, together with those not paying attention to pedagogical applications, as among the phenomena that could lead to the “bleaker future” of EAP research (p. 76).

The argument here is not that genre analysis study is valuable only when driven by students’ needs, when addressing a localized pedagogical problem, or when
offering pedagogical implications that are based on concrete needs. In a recent forum article in this journal, Mauranen (2022) has argued that LSP researchers and practitioners should also conduct “studies of specialized communication” and “carry out research… in the category of ‘nice to know’ than ‘essential to know’” (pp. 10-11). If that is the case, LSP practitioners need to actively bridge the gap between “nice to know” and “need to know” when reading genre analysis studies. They may need to consider carefully how some of the particularities in research genres that have been teased out by genre analysts can or cannot inform their own instructional strategies and their own teaching of research writing to the students across the disciplines in their classroom, many of whom are working in disciplines unrelated to those studied by genre analysts. LSP practitioners reading genre analysis studies of applied linguistics/TESOL RAs will need to be especially vigilant of the sometimes implicit assumption that what has been found in their home discipline is relevant to students in other fields. They may need to avoid the “I will teach you what I know in my field instead of what you may need to know in your field” mentality in their LSP classroom.

That said, the large number of Swalsian genre analyses of RAs and other research genres from a wide range of disciplines is a valuable source of information about the rhetorical organizations, the lexico-grammatical features, and the rhetorical contexts of research genres across the disciplines. They could also show how LSP practitioners can conduct their own genre analysis of the writing in their students’ fields or guide their students to conduct such analysis (see Cheng, 2018). Being able to do so is an important part of the specialized knowledge of an LSP practitioner (Ferguson, 1997, p. 84). Compared with direct interactions with faculty, this source of information is more readily accessible to many as long as they have subscriptions to the publication venues where these studies often appear. Given some of the problems associated with direct interactions with faculty as noted in the preceding section, it can be a pathway that many LSP practitioners are more comfortable with. This pathway is, therefore, worth pursuing, especially together with other pathways.

Pathway 3: To study meta-genres

Compared with the other two pathways, this one is less traveled but is intriguing to me for some of the reasons described in this subsection. Meta-
genres are “genres about genres” (Giltrow, 2002, p. 195) that “provide shared background knowledge and guidance in how to produce and negotiate [one’s target] genres” (Bawarshi & Reiff, 2010, p. 94). Examples of meta-genres that provide background knowledge of, and guidance on, research genres include discipline-specific guidebooks on research writing, such as Baglione (2020) on RAs in political science. They include essays and articles written by disciplinary insiders to introduce novice writers to the writing practices in their fields, such as Agarwal (2012) on how to write successfully for the journal Information Systems Research, among numerous other examples. Such meta-genres are normally produced by seasoned scholars, journal gatekeepers, or other disciplinary insiders for audiences within their fields. LSP practitioners are, in this sense, only the eavesdropping audience at best. As the unintended audience, however, we can listen attentively and, more importantly as I will show later, critically, to learn a lot about these disciplinary insiders’ understanding or expectations of strong research writing in their fields. The insights one can potentially gain through such an act of careful and critical listening can make meta-genres an additional pathway for LSP practitioners to increase their knowledge of discipline-specific writing.

In Cheng (2018), I describe how some guidebooks on discipline-specific research methodologies and research writing have heightened my awareness of what the new genres in these fields are, how established genres have been discussed insightfully in the disciplinary context in question, and how knowledge is constructed in these disciplines. A book on graduate-level writing in music by two music faculty and a librarian, for example, introduces me to how the document resembling a graduate thesis has been given different names, written differently by students depending on the musical traditions they are trained in, and perceived as performing different communicative purposes by faculty in different programs (Boyle et al., 2004). Guidebooks or essays by disciplinary insiders are far from the only meta-genres worthy of LSP practitioners’ attention. Journals’ submission guidelines are another example. They are easily available to LSP practitioners, especially if they ask students to select RAs from journals from their disciplines to analyze, a seemingly common pedagogical practice (e.g., Kuteeva, 2013). Through asking students to build reference collections of RAs in their fields, I have been introduced to hundreds of journals in these fields (Cheng, 2018). Each journal’s submission guidelines, together with other journal-specific meta-genres, offer an opportunity to learn something
new about writing in that discipline. The information includes the different genres that these journals published, the expected organization of a typical RA, the different types of visuals, the editorial policies and peer review criteria that can be consequential to how RAs are to be evaluated, and other useful details. These submission guidelines also provide links to other meta-genres that are equally useful in enhancing one’s knowledge of discipline-specific writing, such as papers, editorials, and even YouTube videos by well-respected scholars in these fields. I noticed that journals’ submission guidelines have captured the attention of some in the field. For example, McKinley and Rose (2018), Henshall (2018), and Jin (2020, in this journal) have analyzed the submission guidelines of hundreds of journals from different fields to study the preferred varieties of English, definitions of grammatical correctness, and other language policy issues as conceptualized in these journals’ submission guidelines.

Reading these meta-genres should be more than just learning about anthropologically interesting details about writing in different fields to show off at the next LSP tea party. A more helpful approach is to engage with them to reflect on, and to restructure, one’s knowledge of discipline-specific writing as seen in the work of some LSP practitioners. For example, Swales and Luebs (2002) analyzed the research articles in two social psychology journals and showed to their students how the titles, abstracts, methods, and other parts confirmed or undermined the APA Publication Manual, the meta-genre presumably with a “powerful, and even coercive effect on the shaping of research texts in psychology” (p. 145). Similarly, Stoller and Robinson (2013) compared the findings of their genre analysis of RAs from six journals with the American Chemical Society (ACS) Style Guide, a meta-genre guiding these journals. The comparisons enabled them to augment their description of the sequence and functions of the components in the RAs. They showed how the sequence and functions had been “widely endorsed” in the ACS Style Guide and, thus, should be translated into pedagogical materials for their students (p. 52). In Cheng (2018), I describe how a guidebook on research writing by three biology researchers discusses the sequence in which the different part-genres in an RA are supposed to be written (Gladon et al, 2011). Interestingly, I noticed that LSP practitioners have also suggested three different sequences in which the part-genres in an RA should be taught (Swales & Luebs, 2002; Swales & Feak, 2012; Burgess & Gargill, 2013). These sequences are different from that suggested by the biologists. The detailed reasons for these suggested sequences allowed me a
glimpse into how these authors perceived the ideal process of writing an RA. The book also emphasizes the importance of a “take-home” message (Gladon et al., 2011). Again, quite interestingly, LSP practitioners have also talked about the importance of helping students develop a take-home message (Burgess & Cargill, 2013; Cargill & Connor, 2012; Rogers et al. 2016). Their definitions of a take-home message and its role in only some specific part-genres, such as the discussions, however, differ from those by the biologists who not only explain what a take-home message is, but also how it has a role to play in every part-genre, rather than just in some part-genres. More significantly, they offer concrete examples of take-home messages in different part-genres. The differences do not imply that one perspective is necessarily superior to the others. The opportunity to closely examine the differences has, nevertheless, enabled me to review and revise my knowledge on these and other topics.

LSP practitioners have also zoomed into what meta-genres can reveal about language use in research writing in different fields. Millar et al. (2013) analyzed the guidelines provided by top five journals and examined any discrepancy between how the passive voice has been used in 297 primary RAs in these journals and what the guidelines of these journals advocate about grammatical voice. They found that the guidelines might have reflected the longstanding linguistic practice and have influenced journal gatekeepers’ intervention on authors’ language use. Consequently, they noticed that the guidelines have some impact on the use of the passive voice in the articles, especially in the methods and results part-genres. By contrast, Jiang and Hyland (2020) compared three grammatical features in 360 papers in five journals with the advice in a range of guidebooks and found increasing deviations from the advice. The advice examined in Jiang and Hyland (2020), which they criticized as prescriptive, are from generic, non-discipline-specific guide books on writing. Such non-discipline-specific meta-genres do not belong to the meta-genres discussed here (more on this point in the next paragraph). That said, the critical engagement with meta-genres by Jiang and Hyland (2020), however, is what I would encourage LSP practitioners to do when using meta-genres for professional development.

Pathway 3 has its problems. Not all meta-genres are created equal. I have found non-discipline-specific guidebooks and advice to be unhelpful in most cases as noted in my brief reference to this point in the preceding paragraph. Even for discipline-specific meta-genres, some guidelines on writing in a specific discipline may be written by faculty who are strong researchers but
are not necessarily strong writers or someone who hasn’t thought about genres or the writing process at a theoretical level. They may be just relying on their personal experience as a writer when composing such guidebooks (see the point about faculty not receiving instruction on writing in my discussion of the problem in Pathway 1). For this reason, before reading any discipline-specific guidebook, I would browse through the authors’ own publications and get a sense of their writing. Some journals also provide a minimal amount of information on their websites, making their meta-genres only minimally helpful. That said, this pathway, similar to Pathway 2, is readily accessible, contrary to Pathway 1. They would complement one another.

Some concluding thoughts

Even though I have presented the three pathways separately and in the order above, they are not mutually exclusive. One is not necessarily superior to the others. Balancing these pathways, while taking stock of the values and problems in each, offers great potential for LSP practitioners to enrich their knowledge of discipline-specific discoursal practices. For example, as noted earlier, Caplan (2020) interviewed MBA faculty about the case analysis genre. I noticed that the business case analysis genre has been analyzed by genre analysts who have described in detail its rhetorical organization, lexicogrammatical features, and rhetorical context (e.g., Forman & Rymer, 1999a, 1999b; Nathan, 2013, 2016). Interestingly, some of these genre analysis studies reference certain meta-genres produced by business faculty members (e.g., Mauffette-Leenders et al., 1997; Sheen & Gallo, 2015), among others out there, that could enhance one’s understanding of this genre. I can envision how the information from these three pathways—LSP practitioners’ interview data (Pathway 1), the genre analysis studies by LSP practitioners (Pathway 2), and the meta-genres by business faculty (Pathway 3)—are mutually enriching. Comparing and contrasting the different perspectives from these sources can result in a more nuanced understanding of discoursal practices and expectations embedded in this genre.

In addition, the three pathways described above are far from the only valuable ones. Other pathways have been pursued by LSP practitioners, such as instructors conducting pedagogically driven genre analysis studies. Swales and Post (2018) call this type of studies “research into practice
activities” (p. 91) and the “discourse analysis to materials production” approach (p. 94). Distinct from some studies described in Pathway 2, this type of genre analysis studies is motivated by certain factors within a concrete pedagogical context. For example, driven by the need to teach a group of perinatology post-doc fellows to write for publications, Feak and Swales (2010) selected 140 RAs from seven journals in perinatology. Their multiple “investigative forays” (p. 284) include a multi-level genre analysis of the collected RAs (conducting genre analysis, or Pathway 2), notes from the meeting the director of the research center who was an expert in the field of ultrasound (interacting with faculty, or Pathway 1), and reviews of editor and reviewer correspondence from a medical journal (analyzing meta-genres, or Pathway 3). Feak and Swales (2010) noticed these “forays” had increased their sensitivity to certain textual features in this field (p. 284). For example, they noticed that, distinct from what applied linguists have found, such quantifiable characteristics as “paternal birthweight, gestational age, and endometrial volume” can also serve as the subject of the verb predict (p. 297). Such an observation prompted them to warn against overly relying on writing instructors’ intuitions about language use to guide instruction or to over-correct their students’ discipline-specific writing. If Feak and Swales’ (2010) pedagogically driven genre analysis focused on one discipline only, Swales and Post (2018) studied how imperatives have been used in five fields. They interviewed one scholar from each of the fields to gain their “professorial perspectives” on the use of imperatives in their fields (p. 93). Based on their analysis of this feature in specific disciplinary texts and contexts, they presented some research findings that can draw students’ attention to the disciplinary variation in imperative usage, involve students in mini-explorations for a better understanding of the functions of imperatives in specific contexts, and expose the students to professors’ perspectives on this topic. Though these activities aim to increase students’ knowledge of disciplinary variations in the usage of this feature, the process has, undoubtedly, increased the LSP practitioners’ knowledge on this topic.

Though most of the examples in this forum article are related to teaching graduate-level research writing to students across the disciplines, the key point about developing one’s knowledge of the discoursal practices in specialized context is pertinent to all LSP practitioners. As noted earlier, such knowledge is part of one’s “specialized knowledge” and is a crucial component of any LSP practitioners’ knowledge base (Ferguson, 1997, p.
84). This forum article aims to encourage LSP practitioners to reflect on the pathways amenable to them. It also encourages LSP practitioners to research on their own or on other LSP practitioners’ pathways to develop such knowledge. Further studies in this area will help push forward research on teacher education, which is still an area that needs increased attention in LSP research (e.g., Basturkmen, 2014).

References


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