Disciplinary Specificity: Discourse, Context, and ESP

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Abstract

ESP has had a longstanding commitment to contextual relevance that practitioners attempt to reflect in their analyses of student target needs and in their teaching. The emergence of community-oriented views of literacy has encouraged us to give greater attention to the specific contexts of academic language use so that identifying the specific language features, discourse practices, and communicative skills of target groups has become a key feature of our work. Basically, texts are only effective when writers employ conventions that other members of the community find familiar and convincing and this means that they are likely to differ across disciplines. The idea of specificity, however, remains stubbornly contentious and vulnerable to financial cuts and institutional logistics. In this chapter, I will revisit some of the arguments for specificity. By drawing on research into both student and professional academic writing, I will attempt to highlight something of the disciplinary-specific nature of academic writing and spell out what this means for ESP. In particular, I will focus on four-word lexical bundles. These are multi-word expressions that represent an important component of fluent linguistic production and are a key factor in successful language learning in the disciplines. The study is based on a corpus of 3.5 million words of research articles, doctoral theses, and master’s dissertations in four disciplines and shows that both the forms and the meanings of these bundles differ in important ways across disciplines.

Dimensions of Specificity

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| University textbooks | 8.1 |
Specificity is perhaps the most central concept in language teaching and discourse analysis today and represents a key way in which we understand and practice ESP. My purpose in this chapter is to offer some evidence for this statement, drawing on a range of research but particularly my own work with professional and student academic writing.

Dimensions of Specificity

Specificity, however, appears in numerous guises. Biber’s (1988) corpus studies, for example, have confirmed the specificity of mode, finding greater nominalization, impersonalization, and lexical density in written texts compared with spoken texts. There is also a high degree of specificity in the kinds of writing that students are asked to do, as surveys by Horowitz (1986) and others discovered. In fact, because different fields value different kinds of argument and set different writing tasks, even students in fairly cognate fields, such as nursing and midwifery, are given very different writing assignments (Gimenez, 2009). Similarly, research in contrastive rhetoric (e.g., Connor, 2004) has pointed to cultural specificity in rhetorical preferences. While we can’t simply predict the ways people are likely to write on the basis of assumed cultural traits, students’ first language and prior learning influence their ways of organizing ideas and structuring arguments when writing in English at university.

Perhaps most research into specificity has attended to genre, where particular purposes and audiences lead writers to employ very different choices (e.g., Hyland, 2008a). Table 1.1, for example, compares frequencies for different features in 240 research articles and 56 textbooks.

<table>
<thead>
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<td><strong>Selected Features in Research Articles and Textbooks</strong></td>
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We can see considerable variation in these features across the two genres. The greater use of hedging underlines the need for caution in opening up arguments in the research papers compared with the authorized certainties of the textbook, while the limited use of citation in textbooks shows how statements are presented as facts rather than as claims grounded in the literature. The greater use of self-mention in articles points to the personal stake that writers invest in their arguments and their desire to gain credit for claims. The higher frequency of transitions, or linking signals, in the textbooks is a result of the fact that writers need to make connections far more explicit for readers with less topic knowledge.

Overwhelmingly, however, it is disciplinary variation that underlies most specificity, and this is what I want to focus on here. Research into differences in academic practices and the texts that these produce is relatively new, partly because the notion of discipline and its underlying reliance on the idea of community has been difficult to pin down, and partly because of our fixation with genre in recent years. While genre has provided a significant way of understanding situated language use, its power of harnessing generalizations has led us to over-emphasize resemblances between texts at the expense of variation. But, as Swales made clear in 1990, we need to see community and genre together to offer a framework of how meanings are socially constructed by forces outside the individual. Research on language variation across the disciplines is rapidly becoming one of the dominant paradigms in EAP (e.g. Hyland, 2004; Flottum et al., 2006; Hyland & Bondi, 2006).

Specificity in this sense refers to what I hope is a fairly uncontroversial idea: that we communicate as members of social groups and that different groups use language to conduct their business, define their boundaries, and manage their interactions in particular ways. For EAP teachers this means focusing on communicating and learning to communicate as a disciplinary insider.

An Historical Sketch: Specific vs. General EAP

The importance of disciplinary specificity in academic literacy education is not new and was central to Halliday, MacIntosh, and Strevens' (1964) original conception of ESP nearly 50 years ago when they characterized it as centered on the language and disciplines and occupations. Matters disciplinary courses make different demands to stress students’ target goal fields in which they will mainly be attracted to.

First there is Ruth Spack’s (1976) training, expertise, and confidence that they should be left to those themselves. Instead, EAP teach principles of study skills and rhetoric for students with limited English to give them a good understanding of how developing skills and focusing on training (Widdowson) activity over education, which involves a range of needs. Disciplinary communication comprises features that differ very little across the disciplines, in particular the idea of a common core of generic themes such as academic writing that note-taking, essay writing, and courses.

In response, there are a number of EAP teaching. For one thing, specialists to teach disciplinary literacies are needed. While there is no one way to do so, we need to control core forms of features of language is not simply acquisition. This suggests that they may need them, rather than focusing on a single form has many possible meanings and by incorporating meaning in a particular context as a disciplinary insider.
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as centered on the language and activities appropriate to particular disciplines and occupations. Matters are perhaps more complex now as interdisciplinary courses make different demands on students, but there remains a need to stress students' target goals, and these often relate to the particular fields in which they will mainly operate. While needs has remained a key feature of EAP, the concept of specificity has had a troubled history and attracted criticism.

First there is Ruth Spack's (1988) view that language teachers lack the training, expertise, and confidence to teach subject-specific conventions and that they should be left to those who know them best, the subject teachers themselves. Instead, EAP teachers should concentrate on general principles of study skills and rhetoric. Second, EAP is said to be too difficult for students with limited English proficiency who need preparatory classes to give them a good understanding of "general English" first. Third is the view that developing skills and familiarity with specific schemata amounts to a training exercise (Widdowson, 1983), a more restricted and mundane activity than education, which involves helping learners to understand and cope with a range of needs. Finally there is a widely held view that academic communication comprises a set of generic skills and language forms that differ very little across the disciplines. Many EAP textbooks are based on this idea of a common core of grammar, and often courses are organized around themes such as academic writing and oral presentations, which suggest that note-taking, essay writing, and speaking skills are similar in all courses.

In response, there are a number of objections to this support for general EAP teaching. For one thing, EAP teachers cannot rely on subject specialists to teach disciplinary literacy skills as they generally have neither the expertise nor desire to do so. Second, the argument that weak students need to control core forms before getting on to more difficult, specific features of language is not supported by research in second language acquisition. This suggests that learners acquire features of the language as they need them, rather than in the order that teachers present them. Third, there are serious doubts over the existence of a "common core" of language items. Focusing on a finite formal system ignores the fact that any form has many possible meanings depending on its context of use, and by incorporating meaning into the common core, we are led to the notion of specific varieties of academic discourse and to the consequence
that learning should take place within these varieties. As Bhatia (2002: 27) observes:

Students interacting with different disciplines need to develop communication skills that may not be an extension of general literacy to handle academic discourse, but a range of literacies to handle disciplinary variation in academic discourse.

Finally, it has been difficult to pin down exactly what general academic forms and skills actually are or to identify what Spack (1988: 29) calls the “general principles of inquiry and rhetoric.” Ann Johns puts it like this:

At one point we thought that we had the answers, based upon a composite of pre-course needs assessments and task analyses . . . But as we begin to re-examine each of these areas, we find that though some generalizations can be made about the conventions and skills in academia, the differences among them may be greater than the similarities; for discipline, audience, and context significantly influence the language required. Students must therefore readjust somewhat to each academic discipline they encounter. (Johns, 1988: 55)

Nor is it clear how a set of common core features might help address students' urgent needs to operate effectively in particular courses even if we could identify it. A specific approach to teaching, on the other hand, helps students to take greater control of the language they learn. By drawing on their experiences in specific courses, we can make the abstract concrete and locate language in the things students know and are familiar with. While teaching contexts such as IELTS preparation courses or pre-sessionals may demand that we try to identify and teach whatever generic forms we can, doing so moves us away from the kind of research-based language instruction that forms the basis of EAP to something more vague and intuitive.

Disciplinary Specificity

The idea of discipline has become important in EAP as we have become more sensitive to the ways genres are written and responded to by individuals acting as members of social groups. Ideas such as communicative competence in applied linguistics, situated learning in the social sciences have co at the heart of writing and speech knowledge and writing depend on munities. Essentially, we can see and this helps us join writers, provide the context within which each other’s talk, gradually acquire the skills to participate as members.

The notion of discipline, however, under the challenge of postmodernism at every turn, and institu tion-based mix-and-match (e.g. Gergen & Thatche true that local struggles, intel venience ensure that boundaries table. New disciplines spring up, others decline while more prosa determine what is recognized as It is, however, a notion witive existence of disciplines car practices. This is because succes vacuum. Instead, it depends on professional context as they se social world that they reflect and So we can see disciplines as part of using language to engage with ways. Academic texts are about to gain support, express collegi the community’s assumptions, t (1992: 290) sees matters:

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in applied linguistics, situated learning in education, and social constructionism in the social sciences have contributed to a view that places community at the heart of writing and speech. This draws on Geertz’s (1973) view that knowledge and writing depend on the actions of members of local communities. Essentially, we can see disciplines as language-using communities, and this helps us learn to communicate and to interpret each other’s talk, gradually acquiring the specialized discourse competencies to participate as members.

The notion of discipline, however, is not an altogether happy one and under the challenge of postmodernism, which sees intellectual fragmentation at every turn, and institutional changes such as the emergence of practice-based and mix-and-match modular degrees, it is increasingly questioned (e.g. Gergen & Thatchenkery, 1996; Gilbert, 1995). It is certainly true that local struggles, intellectual developments, and institutional convenience ensure that boundaries are never stable or objects of study immutable. New disciplines spring up at the intersections of existing ones and others decline while more prosaically, political, and economic factors often determine what is recognized as a discipline.

It is, however, a notion with remarkable persistence, and the distinctive existence of disciplines can be informed by study of their rhetorical practices. This is because successful academic writing does not occur in a vacuum. Instead, it depends on writers’ individual projections of a shared professional context as they seek to embed their writing in a particular social world that they reflect and conjure up through approved discourses. So we can see disciplines as particular ways of doing things—particularly of using language to engage with others in certain recognized and familiar ways. Academic texts are about persuasion, and this involves making choices to gain support, express collegiality, and resolve difficulties in ways that fit the community’s assumptions, methods, and knowledge. This is how Wells (1992: 290) sees matters:

Each subject discipline constitutes a way of making sense of human experience that has evolved over generations and each is dependent on its own particular practices: its instrumental procedures, its criteria for judging relevance and validity, and its conventions of acceptable forms of argument. In a word each has developed its own modes of discourse.
To work in a discipline, then, we need to be able to engage in these practices and, in particular, in its discourses.

So disciplines structure the work we do within wider frameworks of beliefs and provide the conventions and expectations that make texts meaningful. We can see this if we picture the disciplines as spread along a cline, with the hard sciences at one end and the softer humanities at the other.

In the sciences new knowledge is accepted through experimental proof. Science writing reinforces this by highlighting a gap in knowledge, presenting a hypothesis related to this gap, and then reporting experimental findings to support this. The humanities, on the other hand, rely on case studies and narratives while claims are accepted on strength of argument. The social sciences fall between these poles, for while they have partly adopted methods of the sciences, in applying these to human data they have to give more attention to explicit interpretation. In other words, academic discourse helps to give identity to a discipline, and we need to understand the distinctive ways disciplines have of asking questions, addressing a literature, criticizing ideas, and presenting arguments so we can help students participate effectively in their learning.

Some Sample Differences

The idea of specificity assumes that academic discourse is embedded in the wider processes of argument, affiliation, and consensus-making of disciplines. Discourse thus helps to create a disciplinary view of the world as each community develops its own knowledge that is reflected in clear differences to the work of others. We can, then, see academic writing as a way to galvanize support, express collegiality, and most closely correspond to the conventionalized bodies of knowledge.

One area of difference is in citations. Sociologists produce public knowledge results that are more dispersed and the readership presuppose a shared context but...
as each community develops its own way of formulating and negotiating knowledge that is reflected in clear rhetorical preferences (Hyland 2004). We can, then, see academic writing as sets of rhetorical choices employed to galvanize support, express collegiality, and resolve difficulties in ways that most closely correspond to the community’s assumptions, methods, and bodies of knowledge.

One area of difference is in citation practices. The inclusion of references to the work of others is obviously central to academic persuasion as it helps establish a persuasive framework for arguments by showing how a text depends on previous work in a discipline. But because discourse communities see the world in different ways, they also write about it in different ways. Table 1.2 shows that two-thirds of all the citations in an article corpus of 1.4 million words occur in the humanities and social science papers (Hyland, 2004).

Essentially, these differences reflect the extent writers can assume a shared context with readers. In Kuhn’s (1962) normal science model, natural scientists produce public knowledge in a relatively linear way as research results often require further questions to be followed up with further research. This means that writers don’t need to report research with extensive referencing. Readers are often working on the same problems and are familiar with the earlier work; they have a good idea about the procedures used, whether they have been properly applied, and what results mean. In the humanities and social sciences, on the other hand, the literature is more dispersed and the readership more heterogeneous, so writers can’t presuppose a shared context but have to build one far more through cita-

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<tr>
<td>Sociology</td>
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<td>Biology</td>
<td>15.5</td>
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<tr>
<td>Philosophy</td>
<td>10.8</td>
<td>Electronic Engineering</td>
<td>8.4</td>
</tr>
<tr>
<td>Applied Linguistics</td>
<td>10.8</td>
<td>Mechanical Engineering</td>
<td>7.3</td>
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<tr>
<td>Marketing</td>
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<td>Physics</td>
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tion. Biology spoils this rather neat explanation with the highest citation count per 1,000 words, but interestingly this is largely due to a very high proportion of self-citation with 13 percent of all citations to the current author, compared with about 6 percent overall.

Research also shows major differences in the ways writers report others' work, with results suggesting that writers in different fields draw on different sets of reporting verbs to refer to their literature (Hyland, 2004). Among the higher-frequency verbs, almost all instances of say and 80 percent of think occurred in philosophy and 70 percent of use occurred in electronics. The most common forms across the disciplines are shown in Figure 1.2.

These preferences seem to reflect broad disciplinary purposes. The soft fields largely used verbs that refer to writing activities, like discuss, hypothesize, suggest, argue, which allow writers to discursively explore issues while carrying a more evaluative element in reporting others' work. Engineers and scientists, in contrast, preferred verbs that point to the research itself like observe, discover, show, analyze, and calculate. This emphasis on real-world activities helps scientists represent knowledge as proceeding from impersonal lab activities rather than from the interpretations of researchers.

Hedges such as possible, might, or likely also display disciplinary specificity. These function to withhold complete commitment to a proposition, implying that a claim is based on plausible reasoning rather than certain knowledge while opening a discursive space for readers to dispute interpretations (Hyland, 1996). They are used more in soft science papers than in hard science papers. There is less contrivance and fewer clear bases for doing science, so writers can use a broader range of shared assumptions. Writers often disguise their objectivity, using fewer hedges or even hedging when they do hedge as these margins show.

Finally, the decision of writers to use or the use of impersonal pronouns helps convey disciplinary specificity. Again, show broad disciplinary differences; in particular, impersonal pronouns in the social sciences are used more frequently than in the natural sciences (Kuo, 1999). Successful communication of research depends on the author's ability to interpret and make sense of data, findings, and conclusions.

### TABLE 1.3

Self-Mention in Research Article

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<tr>
<th>Discipline</th>
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<tr>
<td>Philosophy</td>
<td>5</td>
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<tr>
<td>Sociology</td>
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<tr>
<td>Applied Linguistics</td>
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<tr>
<td>Marketing</td>
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<td>Average</td>
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