

1 The History of English for Specific Purposes Research

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Introduction

Reviewing the history of English for specific purposes (ESP) research presents at least three problems: the first is deciding when the review should begin, that is, at what point in ESP's long history. This problem was solved by taking the lead from John Swales (1988), whose movement history, *Episodes in ESP*, begins in the early 1960s. The second problem is more difficult: though much of the research cited in this review was written for international journals, there has always been considerable localized, on-site ESP/LSP research that is either unpublished, published in a language other than English, or in local journals. For example, there are, or have been, regional ESP journals in Brazil (*ESpecialist*) as well as conferences and research publications in other parts of Latin America (see Horsella and Llopis de Segura 2003), where the Latin American ESP community has been active for many years¹. In Europe, *ASP: la revue du GERAS* (see e.g. Gledhill 2011) and *Ibérica*, the official journal of AELFE, the European Association of Languages for Specific Purposes, often publish relevant articles (see e.g. Bhatia 2002). The European Association for the Teaching of Academic Writing (EATAW) conferences include a variety of papers that could fall under the ESP rubric (see Futász and Timár 2006). IATEFL also has a special interest group in ESP <http://espsig.iatefl.org/> which publishes research reports (<http://espsig.iatefl.org/>). At this writing, at least three other publications are also available: the *Asian ESP Journal* (<http://www.asian-esp-journal.com/>), *ESP World* (<http://www.esp-world.info/>), and the international (currently print and online) journal, *English for Specific Purposes (ESPJ)*. Because of this wide variety of possibilities, it is sometimes difficult to make clear-cut decisions about trends in research or which articles to cite.

A third problem confronts the reviewer, as well: making a clear distinction between research and practice. Unlike many other research areas in theoretical and applied linguistics, ESP has been, at its core, a practitioners' movement, devoted to establishing, through careful research, the needs and relevant discourse features for a targeted group of students (see e.g. Richterich and Chancerel 1977). As Belcher (2009a: 3) points out in her edited collection:

ESP specialists accept the responsibility for finding out what their learners will likely need (and want) to be able to read, write, speak and comprehend as listeners to achieve their goals.

This conflation of research and pedagogical practice may explain why John Swales' ground-breaking *Episodes* (1988) history includes eleven pedagogical pieces and only three other entries that would be considered research by the current reviewers of *ESPJ* or why *Issues in ESP* (Waters 1982) includes five chapters on research-based pedagogies. This may be why Tom Huckin and Leslie Olsen, respected ESP researchers, wrote *Technical Writing and Professional Communication for Nonnative Speakers* (1991) for the classroom, or why Michael Long's (2005) research-based collection is devoted exclusively to needs assessment, fundamental to ESP curriculum design. No doubt this is why Ken Hyland, a prolific English for academic purposes (EAP) researcher, addresses teaching approaches in his volume titled, *Genre and Second Language Writing* (2004), why Helen Basturkmen (2006, 2010) combined research on learning and pedagogy in her ESP overview volumes, or why Swales and Feak (2000, 2004, 2009, 2011a, 2011b, Feak and Swales 2009, 2011) have produced pedagogical volumes that apply current ESP research to teaching. Undoubtedly, there are more published and unpublished examples of this research/teaching interaction in many parts of the world.

Given the frequent – and required – conflation of research and pedagogical practice in ESP, how can a history of *research*, in contrast to systematic preparation for teaching practices, be written? To identify some distinctions between the two, four sources have been consulted: Hatch and Farhady (1982), whose volume on applied linguistics research design remains one of the best, even today; Martin Hewings' "A History of ESP through *English for Specific Purposes (ESPJ)*" (2001); Peter Masters' "Research in ESP" (2005), and the international journal *English for Specific Purposes (ESPJ)*, founded as *The ESP Journal* in 1981.

Hatch and Farhady defined research as "a systematic way for searching for answers to appropriate questions . . ." The researcher's task is viewed as "asking the appropriate questions, selecting the best and optimally the shortest ways to find answers, and interpreting the findings in a way which we can justify" (1982: 1). On the other hand, in his 2005 overview of ESP research, Peter Master, who served as *ESPJ* co-editor, includes a variety of pieces on course design which might not qualify under the Hatch and Farhady definition; thus his view of the nature of ESP research is considerably broader, influenced, no doubt, by his pedagogical practice. However, as Hewings points out, and which should be clear from the discussion that follows, since its inception, the premier international journal,

English for Specific Purposes (ESPJ), has become increasingly empirical, as exploratory and course design papers have become relatively rare. Not surprisingly, the number of *ESPJ* articles on program description has decreased significantly: from 36 in the first five volumes to 10 in volumes 16–20 (Hewings 2001: 1). One result of this move toward empiricism is that the journal has now been included in the prestigious Social Science Citation Index (SSCI) “which is widely used as an indicator of quality research publications in, for example, US tenure committees and the UK Research Assessment Exercise” (Hewings 2001: 1).

Using these sources and my own experiences as a previous *ESPJ* co-editor and researcher, I have divided the research history that follows into four sections: The Early Years (1962–1981), The Recent Past (1981–1990), The Modern Era (1990–2011), and The Future (2011 plus), principally citing the articles in *ESPJ* as evidence, but drawing from a number of other sources as well.

The Early Years 1962–1981 (From Text-based Counts to “Rhetorical Devices”)

This review begins in the years following World War II, where Swales (1988) began in *Episodes in ESP*. At that time, the central focus of ESP research was English for science and technology (EST) in academic contexts, an interest that remains strong to this day. In the first years of this period, research tended to be descriptive, involving statistical grammar counts within written discourses. Swales’ first example in *Episodes*, by Barber (1962), was devoted to counting grammatical features across genres (textbooks and journal articles), in an attempt to determine some general sentence-level characteristics of EST. However, as Swales noted, this type of work “had descriptive validity but little explanatory force” (1988: 59). So this approach was soon overridden, as influential EST researchers, John Lackstrom, Larry Selinker, and Louis P. Trimble (see e.g. Lackstrom et al. 1972), began to dominate the field. For these North American authors from what was called “the [University of] Washington School,” the relationships between EST grammar or lexicon and the authors’ rhetorical purposes in texts were central, a connection that continues to be the focus of much of the ESP discourse analysis. Their “Grammar and Technical English” (1972), republished and discussed in *Episodes* (1988: 58–68), had a major impact. Joined by Mary Todd Trimble, Louis Trimble, and Karl Drobnic (1978) they edited a collection that also focussed upon science and technology. Along with chapters on curriculum design, this publication included sections on contrastive discourse analyses for Spanish, Macedonian, and Japanese, investigating both lexical and grammatical EST features.

In addition to contrastive analysis studies, a forward-looking chapter in the Trimble, Trimble, and Drobnic volume called “Purpose, device, and level in rhetorical theory” was contributed by a Washington School colleague, Robert Bley-Vroman. There, the author laid out the goals of ESP rhetorical theory as “establish[ing] a correspondence of purpose with device,” with “device” referring

to “the linguistic means by which the author achieves his [sic] end” (1978: 280). In general, these scholars’ research, though ground-breaking, did not involve efforts to interview students or disciplinary experts to verify their hypotheses gleaned from texts.

Nonetheless, Washington School work represented an important turning point for ESP, with rhetorical concerns, particularly as they were inferred from “devices” within the text, becoming a central research focus. Probably the most famous of the studies in this period is found in Tarone et al. (1981), which appeared in the first volume of what was then called *The ESP Journal*, established by Grace Burkhart at the American University in Washington, DC and was reprinted, with commentary, in *Episodes in ESP* (1988: 174–187). In contrast to some of their predecessors, Tarone and her colleagues were not attempting to generalize about features of scientific language across genres; instead, they focussed on one arguably central characteristic of scientific prose, syntactic *voice*, as it had been argued that about 25 percent of the verbs in research articles are in the passive (Swales 2011). Whereas Barber was concerned with counts of grammatical items across EST, Tarone and her colleagues were testing hypotheses about the functions of a specific grammatical feature as it influenced rhetorical decisions among a narrow range of research articles in astrophysics. Another relatively new characteristic of this 1981 study was the involvement of an expert as a “specialist informant” with whom Tarone and the other applied linguists tested their conclusions.

Through the Tarone et al. study and the Washington School work precedents were set that can be found in much of what has been published in succeeding years. Among other contributions, these researchers brought to the fore two influential approaches in ESP methodology identified by Selinker (1988) in his research overview: “consultations with subject-specialist informants,” and “rhetorical/grammatical analyses” of specific types of texts, generally in science and technology disciplines. In less internationally conspicuous, more localized work, content specialists were also beginning to be consulted. For example, in a Regional English Language Centre/Singapore University publication edited by Jack C. Richards (1976), there appeared a chapter titled “The language of science from the viewpoint of the writer of science” (Godman: 71–78).

The trend towards more narrowly defined ESP research topics and texts, found in Tarone et al., was influential then, and remains central (see Hyland 2011). Dudley-Evans (2001: 311), in his final comment as *ESPJ* editor, noted that these trends toward in-depth, empirical and focussed work have continued:

... as ESP research becomes more sophisticated and the range of its activity much broader, it has inevitably developed a much more focussed approach that looks at more detailed questions.

Though this is a review of ESP *research*, it is important to note that ESP course-books, often supported by the British Council, as well as published and unpublished research were being distributed widely in the EFL world, particularly in the Middle East and Latin America. Among the most famous were the *Nucleus*

series, edited by Martin Bates and Tony Dudley-Evans (1976–80), Ewer and Latorre's (1969) *A Course in Basic Scientific English*, and John Swales' *Writing Scientific English* (1971/6) (see also Ewer 1971).

The More Recent Past: 1981–1990 (Broadening the Scope/Introducing Central Concepts)

A second historical period in ESP is bounded by the work of John Swales, whose seminal "Aspects of Article Introductions," first appeared in the United Kingdom in 1981. The approach described there became widely recognized when it appeared in augmented form in *Genre Analysis* (1990), initiating a research boom that has yet to end.

ESP leaders were also making an effort to expand the movement's horizons. Near the close of this period, the editors of *ESPJ*, John Swales and Ann Johns (1987: 163), expressed their concerns that ESP continued to be limited and was therefore considered irrelevant by most of the TESOL community; however, they promised to broaden the journal's scope, saying in the editorial for Vol. 6 (3):

... as (ESP) researchers and practitioners have produced more refined studies, they have limited the scope and interest in ESP, principally to English for Science and Technology in an academic context. As a result, many TESOL professionals, working in content-based instruction and vocational ESL, do not think of themselves as part of ESP.

... We are attempting, through this journal and elsewhere to break from ESP's self-imposed limit in order to return to Strevens' original broad definition of ESP (1977), which included English for academic purposes, English for occupational purposes (also called VESL). . . .

The attempt to widen ESP's scope by the *English for Specific Purposes Journal* was certainly made and, as a result, the 1981–1990 period may have been the most inclusive in terms of topics for published research and pedagogical practice. During this period, special issues of the journal were devoted to teacher training (Vol. 2(1), 1983, in honor of Jack Ewer); to Vocational ESP (Vol. 3(2), 1984, guest edited by JoAnn Crandall); to interlanguage (Vol. 6(2), 1987, guest edited by Larry Selinker), and to training of international teaching assistants (Vol. 8(2), 1989, guest edited by Richard Young). In addition, submitted articles to issues that were not "special" predicted much of what was to come. The most frequently appearing of these topics are discussed below.

Needs assessment

During these early years of *ESPJ* publication, there appeared a considerable number of articles on needs assessment, the core of ESP practitioner work; though as West (1984) showed in her discussion of vocational ESL (VESL), research into

student needs had become increasingly empirical, triangulated, and complex over time. Jacobson (1986), also breaking new ground, concentrated upon the strategic, rather than grammatical or discourse competence needs of students in a physics lab. In an Italian setting (1988), Tarantino used a face-to-face questionnaire interview to measure the macro- and micro-level needs of 53 EST researchers and students.

Linguistic devices and their rhetorical purposes

The interest in linguistic “devices,” particularly as they related to rhetorical purposes, remained popular throughout the 1980s. Adams-Smith (1984) explored the problems that L2 speakers may have with distinguishing between objective statements of fact and author-marked observations in written texts. Malcolm’s (1987) functional account of tense usage in the *Journal of Pediatrics* and Hanania and Akhtar’s (1985) study of the rhetorical functions of certain verb forms in biology, chemistry, and physics theses demonstrated the potential for this approach. Though much of the research that connected linguistic elements with their rhetorical functions was completed on written texts, Rounds (1987) took on spoken English in her study of the rhetorical realizations of personal pronouns in a university mathematics classroom.

Technology: Posters, telexes, slides, and computer-mediated instruction

Though computers were not widely employed between 1981 and 1990, various researchers studied the technologies available. Betty Lou DuBois (1980), whose interest was in the juxtaposition of the visual with the verbal, studied the use of slides in biomedical speeches and later (1985), the design and presentation of posters at biomedical meetings. Zak and Dudley-Evans (1986) examined two features of the telex: word omission and word abbreviation, suggesting how they might be taught in Business English. Research involving computers did appear in Murray’s (1988) longitudinal study of this “new medium of communication” in a business environment. In her article, the author juxtaposed CmC (computer-mediated instruction) with more traditional forms of written communication. In other ESP research contexts, the computer was also gaining in importance. In August, 1988, for example, Eindhoven University of Technology, in the Netherlands, held a Languages for Specific Purposes (LSP) conference which combined papers on more traditional topics (e.g. word counts within disciplinary discourses) with forward-looking papers such as “Technical communication via computational abstracts” (Harvey and Horsella 1988).

Other, less common, topics in ESP research

In addition to the special issue on interlanguage, the *ESPJ* also touched on topics that were common in the more “general” ESL/EFL areas, such as error analysis. Doushaq (1986), for example, published a piece on stylistic errors made among

Arab students of English for academic purposes (EAP). Though error analysis was no longer a major ESP research topic, other subjects, which continue to be popular, began to appear in the literature, such as early research on learning strategies, an area that is increasingly important to research in the early twenty-first century (see Tardy 2006). Adamson (1990) employed a case study approach to 15 ESL students, investigating both the effective and ineffective strategies (e.g. note-taking and using dictionaries) that were applied to academic classrooms, concluding that English for academic purposes is best taught along with academic content. Tedick (1990) studied the impact of students' subjective knowledge on their writing performance. Nonetheless, as Johns (1988) and Tardy (2006) have indicated, much more still needs to be done to study strategies and to determine how EAP classroom skills can be transferred to content classes or assignments in post-secondary institutions.

Others examined academic writing assignments. Horowitz (1986) classified essay examination prompts in research that has had broad implications for future work. In like manner, Braine (1989) examined students' writing assignments in two undergraduate courses in science and technology.

Central ESP concepts: Genre and rhetorical moves

The term *genre*, which continues to be highly salient in ESP research, began to appear in the ESP literature, often as linguistic "devices" were contrasted among text types. Morrow (1989), for example, contrasted the use of conjuncts in two genres: business news stories and academic journal articles. First, like Barber (1962), he counted the number of conjuncts; but then he commented on communicative and pragmatic functions of these linguistic elements within the texts studied. Gunawardena (1989) compared the uses of the present perfect in the rhetorical divisions within biology and biochemistry research articles. Hopkins and Dudley-Evans (1988), drawing from Swales' 1981 "Aspects" article, conducted a genre-based investigation of discussion sections in published articles and student dissertations, contrasting the rhetorical components of each. Interestingly enough, the issue of genre "volatility," important to current research and theory, was raised by Tinberg (1988: 211), who found differences in rhetorical purposes between examples of two texts within the same genre, resulting from

... competing constraints on the author to stay within the bounds of the general community's genre, while at the same time developing a strong and persuasive argument within the smaller community of his/her paradigm.

The other, related, key term which has become central to ESP research is *rhetorical moves*, discussed in Swales' "Aspects of Article Introductions" (1981). It gained particular popularity in Britain during this period (e.g. Hopkins and Dudley-Evans 1988) and in other parts of the world after the publication of *Genre Analysis* in 1990. Here's what John Swales (2004: 226), with his characteristic modesty, has to say about the significance of his work:

The Create-a-Research Space (CARS) model for RA (research article) introductions in *Genre Analysis* has apparently been quite successful, in both descriptive and pedagogical terms. There are presumably a number of reasons: It was relatively simple, functional, corpus-based, sui-generis for the part-genre for which it applies and, at least in its early days, perhaps offered a schema that had not been widely available. A further predisposing element for the largely positive response may have been its strong metaphorical coloring – that of ecological competition for research space in a tightly contested territory.

Thus, during this second historical period, from the initial publication of *English for Specific Purposes* and “Aspects of Article Introductions” in the early 1980s to the appearance of *Genre Analysis* (1990), the two major terms in the field, *genre* and *rhetorical moves*, were introduced and discussed; and many of the current topics and research approaches were already in place. What was missing, among other things, was the sophisticated use of the computer for gathering corpus data, topics relating to additional ESP areas, and, more triangulated, critical, and contextualized methodological approaches. It should be pointed out, however, that despite the varied topics mentioned in this section, much of ESP research continued to operate within a narrow topical range, as the principal interest of researchers often focussed on English for academic purposes, particularly science and technology (EST) at the post-secondary or graduate level. In addition, written discourse continued to be the preferred data for analysis, according to Hewings’ (2001) study.

The Modern Age: 1990–2011 (New International Journals, Genre, and Corpus Studies Take Center Stage)

The introduction and importance of new international journals

The next period, 1990–2011, is identified here as the “Modern age in ESP.” During this period, two new international journals appeared, both of which included research articles that might have been published in *ESPJ*. The *Journal of Second Language Writing (JSLW)* was founded in 1991 by Iлона Leki and Tony Silva; and though many of its early articles focussed on writing processes or student errors, topics that have not been central to ESP research, in the 2000s, articles about academic argumentation, text analysis, and other issues that overlap with ESP interests appeared with increasing frequency. In 2007, Ken Hyland published “Genre pedagogy: Language, literacy, and L2 writing instruction” in *JSLW*, after which a number of genre-based, ESP-like research articles appeared, eventually resulting in a special issue (20(1), 2011a), edited by Christine Tardy, on “The future of genre in second language writing: A North American perspective.”

In 2001, responding to the overwhelming number of articles in *ESPJ* and elsewhere on academic texts, students, and contexts, Liz Hamp-Lyons and Ken Hyland established the *Journal of English for Academic Purposes (JEAP)*. Though there are many examples of *ESPJ*-like articles in this journal, two will be offered as evidence here. In 2004, Samraj examined the discourse features of graduate student research papers “in order to increase our understanding of this heterogeneous genre and the dimensions along which it can vary across sub-disciplines” (2004: 5). Halleck and Connor (2006), using the increasingly popular corpus methodologies, examined the rhetorical moves in TESOL conference proposals. *ESP*-related articles also continued to appear in more inclusive applied linguistics journals (see e.g. Johns 1993 on argumentation in engineering). Like *ESPJ*, *JEAP* published special issues on topics and methodologies that often expanded the journal’s scope and predicted research topics or methodologies for the future. These included “Evaluation in academic discourse,” “Contrastive rhetoric in EAP,” “Academic English in secondary schools,” and “Corpus-based EAP,” all of which overlap with *ESP* interests.

What makes these new international journals and *ESPJ* central to an understanding of *ESP* research in the twenty-first century is the fact that, in many parts of the world, academics are now required to publish in international journals (preferably those on the Social Science Citation Index) in order to be promoted in their home institutions. This move results, in many cases, from the efforts on the part of the administrators of individual institutions and national educational organizations to boost university rankings internationally. An article on the international “rankings race” (Hazelkorn 2011: 2) included these comments:

[To improve their university’s positions in the rankings], institutions are restructuring to create larger, more research-intensive units, or altering the balance between teaching and research or between undergraduate and graduate activities. Resources are being redirected towards . . . faculty members who are more prolific, particularly on the international level, and thus likeliest to move the [international ranking] indicators upward.

Not surprisingly, *English for Specific Purposes*, as well as other international publications (especially those on the SSCI), have experienced a rapid increase in international submissions. During 2010, for example, the largest number of submissions to *ESPJ* were from Taiwan (23) and the second largest from China (21). Below this group were the United States (16), Iran (11), and Malaysia (10) (Paltridge, personal communication, March 9, 2011). It must be noted, however, that since the *ESPJ* acceptance rate is about 25 percent, a considerable number of the total number of submissions have not been published.

Intercultural rhetorics

The interest in contrastive discourse analysis, while evolving into “intercultural rhetorics” has always been woven into *ESP* research (see Connor 2002, 2004). An

earlier collection on this topic was edited by Swales and Mustafa (1984) and included this representative chapter, “Textual approximation in the teaching of academic writing to Arab students: A contrastive approach,” by Clive Holes. In 1990, Salager-Meyer’s contrasts between metaphors in French and Spanish Medical English research articles appeared in *ESPJ*. Elsewhere, Vijay Bhatia has edited, with Christopher Candlin and others, two major intercultural books on legal discourse (2003, 2008). This interest in intercultural rhetorics continues to this day (Connor 2004), often in English as a foreign language contexts (e.g. Perales-Escudero and Swales 2011). A useful intercultural turn has been taken by Mauranen (2005, 2011) and her colleagues (e.g. Björkman 2009, Hülmbauer 2009) who have pursued the topic of English as a lingua franca through the extensive ELFA (English as a lingua franca in academic settings) Project.

Genre: The central concept

Another important characteristic of the 1990–2011 period is the dominance of *genre* in ESP research, since Swales’ *Genre Analysis* (1990) initiated a remarkably productive topic for scholars. Studies of advanced academic genres continue to predominate, a concern for those who believe that the most intransigent academic issues can be found in novice undergraduate education (see Benesch 1996; Johns 1997). Bhatia’s (1993, 2004, 2008) continuing work has demonstrated, however, that genre analysis can and should be completed on professional genres, as well. This interest in (expository) genres continues to enrich research both within the ESP community (e.g. Tardy 2009, 2011b) and among genre theorists and practitioners from other theoretical schools (see Bawarshi and Reiff 2010).

As Hyon pointed out (1996), there are three acknowledged theories and research paths in genre studies, representing different views and pedagogical goals, and there continue to be tensions among them (Johns 2011; Tardy 2011a). In an effort to resolve some of the theoretical and pedagogical differences, some experts have been working towards theory, research, and pedagogical convergences, moves that should be very productive for future ESP research (Artemeva et al. 2011; Bawarshi and Reiff 2010; Flowerdew 2011; Johns 2002; Johns et al. 2006; Swales 2009).

Before continuing, it is important to look more closely at what has resulted from the ground-breaking ESP work by John Swales. What types of genre research based upon the “rhetorical moves” discussed in *Genre Analysis* (1990) have taken place? A full response to this question would require a book; however, for the purposes of this review, a few of the many examples from *ESPJ* that build directly upon the 1990 volume will be noted here. In the special issue of the journal devoted to a Latin American ESP conference (1992), Salager-Meyer reported on “A text type and move analysis study of verb tense and modality distribution in Medical English abstracts.” Also relevant are Kanoksilapathan’s (2005) article on the rhetorical structures of biochemistry research articles; Lorés’ (2004) study of research article abstracts, touching on both structure and theme; Holmes’ (1997) investigation of discussion sections in three disciplines; Nwogu’s (1997) article

investigating the medical research paper, and Samraj and Monk's (2008) paper in which they examined statements of purpose in graduate student applications.

Although genre analysis that stems from Swales' 1990 "moves" work still appears to be productive, especially in intercultural rhetoric studies (e.g. Ono 2011; Ren and Yuying 2011), most genre research published in international journals now focusses on other issues (see Bhatia 2004 for an overview). One area of research related directly to pedagogy is the development of learner genre awareness. In her meta-analysis of research into first and second language genre learning, for example, Tardy (2006: 81) found that the vast majority of the studies took place in post-secondary academic contexts, 24 of which were in undergraduate classes, while 28 were in graduate school contexts. She found 12 learning/acquisition studies of professionals and interns, and only 8 among young learners and secondary students.

John Swales moved on many years ago from his 1990 classic approach in *Genre Analysis* to propose different ways for examining a genre and discussing its implications. A 2002 publication written with a graduate student, Stephanie Lindemann, employed a case study to focus on the importance of investigating how students "get from the macro- to the micro-level" in their writing processes, particularly as they attempt to produce a complex text, in this case, a literature review for a research paper. In this publication, the authors noted that very little had been done to examine the actual processes that students undertake when attempting difficult tasks, an area that continues to be productive. Swales has also introduced nomenclature that has become integral to ESP research and parlance. His *Other Floors, Other Voices* (1998) brought "textography" into the ESP lexicon, as he studied the interactions of texts and contexts in three distinct discourse communities, using written work, interviews, observations, and other data. A "textographies" approach has been extended by Paltridge, another productive ESP researcher and practitioner, in his more recent work (2008; Paltridge et al. 2011). In "Occluded genres in the academy: The case of the submission letter," Swales (1996) brought another term into the ESP vernacular while reporting his study of submission letters to *ESPJ*. This "occluded" concept (genres which are difficult to obtain examples of) has been extended by Hyon (2008) in her case study of university retention-promotion-tenure reports. These forays did not prevent Swales from returning to an earlier period of careful linguistic analysis as in his 1997 discussion of the "missing complement," a feature characteristic of the cuneiform EST tablet presented to him at an ESP Special Interest Section meeting at a TESOL Conference.

Corpus studies

The modern period also marks the dominant use of corpus research, particularly in analyses of written academic genres, though some important work has been completed on oral language, as well, as seen in the University of Michigan's corpus of spoken academic English, MICASE (see Simpson-Vlach and Leicher 2006). Ken Hyland's many publications focussing on the relationships between

writers and readers of academic texts represent some of the most frequently cited among the ESP corpus studies. His work on metadiscourse, “those aspects of text which explicitly refer to the organization of the discourse or the writer’s stance towards either its content or the reader” (Hyland 2005a: 109) and his “interpersonal model of metadiscourse,” presented in an article co-written with Tse (Hyland and Tse 2004), have been influential. Hyland (2005b: 49) also focussed on “textual voice or community-recognized personality” as he spoke of writer stance; writer engagement then dealt with the ways in which writers relate to their readers. Complementing this text-based research with interviews with specialist informants, he explored differences between the “hard” disciplines, such as the sciences and the disciplines viewed as “soft,” e.g. the social sciences and humanities.

These issues of interpersonality and interactivity in written discourse increased in importance during this period, so much so that one aspect, “evaluative language,” became the focus of a special issue of *JEAP* (Vol. 2(4), 2003), edited by Marina Bondi and Anna Mauranen. Working from the Hunston and Thompson definition of evaluation, an “expression of the speaker or writer’s attitude or stance towards, or viewpoint on, or feelings about the entities or propositions that he or she is talking about” (Hunston and Thompson 2000: 5), the contributors to this issue examined and critiqued evaluative language and its purposes within and among academic discourses.

Prominent researchers

In addition to John Swales, there are individuals who have made special contributions to ESP throughout its history, several of whom will be discussed here. Vijay Bhatia is probably the most prominent ESP research voice in areas outside of academia. His volume entitled *Analyzing Genre: Language Use in Professional Settings* (1993) began his long research and publication path related to professional writing, particularly in the law, as he wrote, edited or co-edited volumes on viewing the law with international perspectives (see e.g. Bhatia et al. 2008) and on diversity and tolerance in socio-legal contexts (Wagner and Bhatia 2009), while contributing to a growing understanding of ESP genre theory (Bhatia 2004, 2009). Using genre as a base, he has moved beyond the language and the law to study broader research interests such as discourse realizations (see e.g. his work on creativity and accessibility in written professional discourse, 2008, and research methodologies, 2002).

Charles Bazerman’s historical studies (see especially, *Shaping Written Knowledge: The Genre and Activity of the Experimental Article*, 1988, <http://www.education.ucsb.edu/bazerman/>), as well as his work with colleagues on the act of writing (see Bazerman and Prior 2004), have been valuable to theorists, researchers, and practitioners. In recent years, he has edited a series called “Rhetoric, knowledge, and society,” volumes reporting on influential studies in the field of writing, both academic (e.g. Prior 1998) and professional (e.g. Winsor 1996). Bazerman also creates alliances among genre theorists, as seen at the Writing Research Across Borders Conference that he convened in 2011 as well as among faculty

across the disciplines (Bazerman and Paradis 1991; Bazerman and Prior 2005). One of his principal interests is building bridges among researchers from different parts of the world through both his international conferences and publications (e.g. Bazerman et al. 2009).

Diane Belcher has made major contributions to research internationally as co-editor of *English for Specific Purposes* (1998–2008) and, at this writing, of *TESOL Quarterly*. Her work in editing ESP volumes on research and practice (Belcher 2009a; Belcher, et al. 2011) and her ESP survey articles (e.g. 2006) have enabled students and professionals throughout the world to appreciate the contributions of modern ESP. In addition, her research on publication in a diverse world (e.g. 2007, 2009b) has explored the obstacles and triumphs of the international scholar.

Brian Paltridge, a former co-editor, with Sue Starfield, of *English for Specific Purposes Journal* and co-editor of the collection, *New Directions in English for Specific Purposes Research* (Belcher et al. 2011). Like Belcher, many of this ESP expert's major contributions are found in his publications that make difficult concepts and current research accessible to the student and practicing teacher. With Starfield, for example, he has produced *Thesis and Dissertation Writing in a Second Language* (Paltridge and Starfield 2007). In addition, his volumes on discourse analysis (e.g. Paltridge 2012) and *Genre and the Language Learning Classroom* (Paltridge 2001) and his state-of-the-art reviews (e.g. Paltridge 2004) are read widely. And like Belcher and many ESP researchers, he devotes most of his attention to graduate students and scholars, with particular focus on China (e.g. Paltridge 2007), where his university has established a joint masters program with Fudan University in Shanghai.

Though as of this writing, Anthony (Tony) Dudley-Evans and Maggie Jo St John are not publishing in ESP, it is important to note that their *Developments in English for Specific Purposes: A Multi-Disciplinary Approach* (1998), in its twelfth printing, continues to be a required teacher education coursebook in many parts of the world. Because of his earlier, research-driven pedagogical work, Tony is the only person who appears twice in *Episodes in ESP* (1988), once as co-author, with Martin Bates, of *Nucleus General Science* (1976) and once with Tim Johns, a remarkable scholar as well, with an article on team-teaching in the sciences (Johns and Dudley Evans 1980). Later, Tony became an expert in the discourse of economics, co-authoring a volume with Henderson on the subject (Dudley-Evans and Henderson 1990). Maggie Jo's interest is the English of Business; and in addition to co-editing a special issue on this topic in *ESPJ* (Vol. 15(1) 1996), she has written two books for EFL business students (1992 and 1994). At this writing, she is actively promoting, through Twitter and elsewhere, volunteer work and English language teaching in the mountains of northern Nicaragua through her direction of the NEST Trust (<http://www.thenesttrust.org.uk>).

In addition to discussing individual researchers/practitioners who have played central roles, it is important to note there are areas in the world experiencing a burst of energy among a group of researchers, sometimes addressing the same topics or methodologies in different ways. Earlier in this review, the significant number of submissions to *ESPJ* from China and Taiwan was mentioned; the *Asian*

ESP Journal (<http://www.asian-esp-journal.com/>) publishes articles from this region, as well, with authors discussing a variety of subjects often using current methodologies. Throughout Europe, researchers also remain active, particularly as they study the use of English among L2 speakers (e.g. Mauranen 2011). The Spanish and Portuguese-speaking world, particularly Latin America, continues to publish papers (see the *ESPecialist*) and hold research conferences (see Horsella and Llopis de Segura 2003). In addition, there have been a considerable number of research efforts in Spain. From the relatively new Universitat Jaume I (James I University), established in 1993 to pursue studies of technology, comes an article by Santiago Posteguillo (2002) demonstrating how online activity has blurred genres and changes our view of language, arguing that there should be online sub-areas for each ESP specialty (e.g. e-BE, for electronic Business English; e-ME for electronic Medical English), since in each specialty, there are specific digital applications. Other members of the Universitat Jaume I faculty, Inmaculada Fortanet-Gómez, Juan Carlos Palmer-Silvera, and Miguel Ruiz-Garrido, are involved in studies of intercultural rhetoric (2011). From Ana I. Moreno at the University of León comes an article that employed a common writing assignment, the cause/effect analytical essay, to demonstrate that researchers need to match their theoretical descriptions of particular discourse types to actual classroom instructions and texts (2003). The University of Zaragoza also has an active faculty (see e.g. Pérez-Llantada, 2009) where corpora play a significant role in the research process.

Mohamed Daoud, an ESP specialist who is active in promoting research-informed ESP teaching in North Africa (1996, 2000), has reported that he, his students, and his colleagues are very active, particularly in writing course-related and textbook projects, as well as theses and dissertations on needs analysis, skill and strategy development, and genre studies. However, as is the case in a number of regions in the world, there is much more happening in ESP than one would assume from examining international journals.

The Future

What will the future bring? It appears that English for specific purposes is moving in the following directions:

International authorship. As it becomes more important for international scholars to publish in SSCI journals, an increasing number of quality submissions will be made from across the world, not only to *ESPJ* but to other international applied linguistics journals (e.g. *JEAP*, *JSLW*, *TESOL Quarterly*) that publish ESP-related work. Unfortunately, this may affect regional journals which often are more focussed on the local needs of ESP students, including pedagogical practices.

Researcher roles. Because ESP has been, and continues to be, a practitioner movement – based upon the research necessary to meet the needs and analyze the

discourses and contexts of target student populations, researchers will continue to view themselves as taking one or several professional roles. In their widely circulated overview of ESP theory, research, and teaching, Dudley-Evans and St John (1998: 13–17) listed five key roles of the ESP practitioner: teacher, course-designer and materials provider, collaborator (often with a subject or vocational specialist), researcher, and evaluator. Though the role of the researcher has been emphasized in this review, the collaborative role is one that is essential in a number of ESP contexts; and in these situations, research and teaching often interact. Here, for example, is a discussion of collaborative vocational ESL work taking place in the United States (Johns and Price, in press):

With the collaboration of CTE instructors and employers, Price [an ESP Consultant] and her colleagues have [conducted needs assessments] and created curricula designed to help students to transfer their skills seamlessly into employment or their job training classes.

Varied methodologies and triangulation. For those considering the central mandate of ESP, an appropriate and thorough needs analysis, it might be best to consult Michael Long's extensive introduction in his collection (2005), devoted exclusively to needs analysis. Among other chapters in the volume are found a variety of approaches, including case studies, task-based foci, and sociological perspectives as well as combinations of these. Other researchers, like Tardy (2011b), have argued for multi-methodological approaches to genre analysis in order to capture [genre's] "dynamic, situated, and intertextual nature." However, at the time of this writing (2011), it appears that corpus linguistics approaches to text continue to dominate submissions to *ESPJ* and the research scene. The editors of *ESPJ* note, for example, that there have been an increasing number of submissions that employ corpus approaches to the analysis of lexical bundles (Paltridge, personal communication, February 12, 2011).

There are also promising efforts to increasingly contextualize and critique ESP approaches. An examination of the 2011 volume, *New Directions in English for Specific Purposes Research*, makes this clear. In this volume, Paltridge and Wang (2011) discuss ways of contextualizing ESP research, analyzing media texts in China and Australia as an example of this. And though ESP tends to portray itself as "scientific" and "objective," there have always been those who challenge this view (e.g. Benesch 1996, 1999), referring to ESP as "assimilationist," for not enabling students to critique their study environments or texts. In *New Directions*, the term "critical" is used with both discourse analysis and ethnography. Kandil and Belcher (2011) report on a corpus-informed study, a critical discourse analysis of the genres of power. Combining a strong contextual approach (ethnography) with a critical focus, Starfield (2011) and Johns and Makalela (2011) discuss their studies, both of which took place in South Africa.

Multimodalities. Gunther Kress (2010) and his colleagues have provided the applied linguistics leadership in approaching texts, and learning, as multimodal. In a 2003 presentation, he argued that

there are linked shifts in representation and dissemination [of information]: that is, from the constellation of mode or writing and medium of the book/page to the constellation of mode of image and medium of screen . . . [This results in] shifts in authority, in changes in forms of reading, shifts in shapes of knowledge and in forms of human engagement with the local and natural world (2003: 3).

Traditionally, especially sciences and technology (EST) and vocational/technical English, coursebooks have identified visual information as central to students' learning (e.g. Kerridge 1988; Yates et al. 1988), and Johns (1998) has discussed interactions of the visual and the verbal in economics, so it is surprising that so little research has been completed either on the visual/verbal interaction in texts or on academic or nonacademic visual rhetoric.

In an excellent volume called *Critical Graphicacy: Understanding Visual Representation Practices in School Science*, Roth et al. (2005) speak of the ways in which visual displays can be employed, and by extension, should be a focus of ESP research. Visual images are used:

to present data, illustrate abstract concepts, organize complex sets of information, facilitate the integration of new knowledge with existing knowledge, enhance information retention, mediate thinking processes, and improve problem solving (Roth et al. 2005: 208–09).

Certainly there is much to study in this list, in addition to the uses of visual information for business and vocational ESP.

Varied locales. It should be evident from this review that post-secondary academic texts, particularly those written by graduate students, have been the preferred sites for ESP research, perhaps because this has been the interest of some of the best-known ESP researchers (Swales, Hyland, Belcher, Paltridge). However, if ESP is to become a more universally-accepted movement, then, as Tardy (2006) points out, more researchers need to make classrooms the center of some of their work (see also Cheng 2011). Some of these classrooms should be in vocational or professional schools (see Johns and Price in press) or in secondary classrooms (see *JEAP* special issue: Academic English in Secondary Schools, 2006, Vol. 5(4)). Interestingly enough, ESP for business professionals has been the fastest-growing area in pedagogical practice (St John 1998). Though the language and discourses of the professions have always been an integral part of the North American genre school and technical writing programs, except for Bhatia and Bazerman's early work, the business, law and other professions have been underrepresented in ESP research. This, too, needs to change.

Locales can also be viewed as vantage points, that is, from the point of view of different stakeholders in an ESP enterprise. In *New Directions* (2011), Belcher and Lukkarila argue that learner identity, particularly the cultural identity of learners, needs to be given greater attention in a needs analysis. Though these authors acknowledge the extensive work in identity studies (e.g. Block 2007; Canagarajah

2004), there is little in *ESPJ* or other ESP publications that considers the intercultural identities of students.

The future of genre studies

It appears that genre as a research topic is nowhere near exhausted. Because it offers possibilities for increasingly complex discussions of text, context, writer, audience, language, and other issues, it may continue to intrigue researchers and ESP practitioners for many years to come. As mentioned earlier, an important recent development in genre studies is the attempt to examine theoretical views (Bawarshi and Reiff 2010) with dispassion and, particularly in the case of Charles Bazerman (WRAB II) and John Swales (2009), to find shared interests among the genre schools. What are these and what research questions might they engender? Here is a list of what most experts, whatever their theoretical views, may recognize as researchable, offered by Swales (2009: 148):

- That in studying genres and genre production, we need to recognize a balance between the constraints of current or previous contexts and expectations of a discourse community and writer/speaker choice.
- That context “colors the realization of genre exemplars,”
- That “genres and genre sets are always evolving in response to various exigencies” and finally
- That in terms of pedagogies and learning, and as a consequence of the other features of genres, “[we need] a more nuanced approach to genre-awareness and acquisition”.

As a result of these efforts by the most creative and well-published authors in genre studies, ESP may, in fact, become much more specific and contextualized, and there will be more studies of whether various “nuanced” genre-awareness approaches in the classroom (see Johns 2009) are, in fact, effective, especially in L2 classrooms.

Conclusion

ESP has come a long way in terms of research practices since its inception in the 1960s, but genre, a topic initiated in 1981, remains with us. In addition, other topics and methodologies have opened the way for learner-centered approaches, advocated by Hutchinson and Waters (1987), and later, by Tardy (2006). There will probably be further interest in classroom-based research and in studies in less-popular academic locales, such as secondary and vocational schools or in regions where English is the lingua franca. Perhaps, unfortunately, for the needs of local students and international scholars, research may become more centralized in international journals, though online publications may mitigate some of these issues.

Four words may serve to summarize what the future may bring to ESP: *variety*, in topics, methodologies, rhetorics (e.g. the visual and multimodal), writer's stance, and more; *context*, as the locales for research become diversified, bring to the fore the specific contexts of classrooms, businesses, online media – and in learners' cognition – *complexity*, realized through methodological triangulation, and finally, *critique*, not only of the researcher's work and pedagogies but of the researcher him/herself, through self-reflection.

NOTE

- 1 See *English for Specific Purposes* 11(2), special issue on the 2nd Latin American ESP Conference, Santiago, Chile, November 1990.

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