

English for Specific Purposes in Historical Perspective

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The article is an attempt at summarizing the most important ESP developments that go back to the inception of the field in the 1960s. It first briefly refers to the emergence of the phenomenon of ESP and then goes on to discuss the most important phases of its evolution. A short description of the earliest phase referred to as register analysis is followed by a brief outline of the discourse analysis phase. The subsequent phase is characterized by the emergence of key ESP concepts, such as needs analysis, genre and rhetorical moves. The following part of the article deals with the most recent ESP phase. It not only focuses on the contribution of important international journals to the development of the field, but also gives an overview of recent investigations into genre theory and in the area of corpus linguistics. The final section summarizes the most significant achievements of ESP research practice and discusses its possible future developments.

English for Specific Purposes (ESP), register analysis, discourse analysis, needs analysis, genre studies, corpus linguistics

1. Introduction

English for Specific Purposes (ESP) is an umbrella term which covers a range of diverse teaching contexts. They are broadly defined as English for Academic Purposes (EAP), English for Occupational Purposes (EOP) and English for Professional Purposes (EPP). Since in each area of ESP teaching, it is customary to distinguish between general and specific purposes, its main branches are further subdivided. Accordingly, in EAP, it is possible to differentiate between English for General Academic Purposes (EGAP), e.g.

English for academic reading, and English for Specific Academic Purposes (ESAP), e.g. English for medical studies (Basturkmen, 2010).

The emergence of ESP phenomenon is the result of a series of events and trends which operated in different ways around the world. First came the recognition of parity of English and French that was confirmed by the signing of the Versailles Treaty in both of these languages in 1919. Although at the peace conference that concluded World War I (1914-18), the French were adamantly against the upgrading of English, the presence of the Americans was decisive and eventually led to “the end of the era of French linguistic pre-eminence (Phillipson, 2012: 33).

The years that followed World War II (1939-45) witnessed unprecedented worldwide expansion of science, technology and commerce, which generated a demand for an international language. Owing to the growing economic power of the USA, this role was granted to English. The post-war changes led to the emergence of a new generation of learners who needed to use English in specific settings, e.g. businessmen to run their businesses, doctors to keep up with recent developments in medicine, students to read their textbooks and international journals only available in English, to name but a few groups (Hutchinson and Waters, 2010).

Developments in linguistics, with the research focus on discovering the ways in which language is actually used in communication (Widdowson, 1979), paved the way for English courses tailored to learners’ specific needs. Another important factor which contributed to the emergence of ESP is studies in psychology (cf. Rodgers, 1986). Underscoring the importance of learners and their attitudes to learning, they gave rise to a learner-centered approach and had their repercussions for the decades to come.

The objective of the article is to present an overview of major developments in ESP during the last 50 years. Although some researchers speak of five ESP generations (cf. Hutchinson and Waters, 2010), the perspective adopted by the author of the present article acknowledges a major impact of the genre concept on the development of ESP theory and practice, and thus comes close to A.M. Johns’ approach to the issue (Johns, 2013; Johns, 2015). Accordingly, the article consists of *Introduction* briefly referring to the emergence of the field, and five thematic sections. The first two describe the early stages of ESP evolution referred to as the register analysis and discourse analysis phases, respectively.

They are followed by a brief discussion on key ESP concepts, such as needs analysis, genre and rhetorical moves, which still predominate in the ESP theory and practice. The section devoted to recent developments focuses on the contribution of important international journals to the development of the field. It also gives an overview of recent investigations into genre theory and in the area of corpus linguistics. The final part of the article summarizes the most significant achievements of ESP research practice and discusses its possible future developments.

2. Early years (1962-1972)

The study of languages for specific purposes has had a long and eventful history and – as some would say – dates back to the times of the Roman and Greek Empires (Dudley-Evans and St. John, 2009). Its modern origins, however, can be traced back to the early 1960s and are associated with J. M. Swales' *Episodes in ESP* and the book by M.A. Halliday, A. McIntosh and P. Strevens (1964) *The Linguistic Sciences and Language Teaching*.

During the early phase of ESP development, referred to as the register analysis phase (Hutchinson, Waters, 2010), the central focus of research was English for Science and Technology (EST) in academic settings. The approach operated on the principle that language varies and its distinctive varieties depend on different users and their idiolects, as well as on language distinct uses, i.e. registers, the later being related to various purposes to which language is put. Thus the aim of analysis was to identify how the language system manifested itself in different registers, e.g. in English of Electrical Engineering as opposed to English of Biology.

Early research involved statistical grammatical counts within written discourse (Johns, 2013). Its best illustration is the first example provided in Swales' *Episodes*, by Barber (1962), which was an attempt at counting grammatical features across genres, i.e. textbooks and journal articles, with a view to defining some general sentence-level characteristics of EST. As observed by Swales (1988: 59), this approach was purely descriptive and quantitative in nature and “had little explanatory force.” Despite its potential usefulness, it did not provide guidance as to *when* one grammatical form is more

preferable to another. Neither did it give any information on *how* a particular form fits into the structure of the text (García Mayo, 1998-1999).

3. From register analysis to rhetorical devices (1972-1981)

The early 1970s witnessed the coming of a new approach associated with a group of influential EST researchers, such as J. Lackstrom, L. Selinker and L.P. Trimble, from “the [University of] Washington School.” Their “Grammar and technical English” (1972), republished and discussed in Swales’ *Episodes* (1988), had a considerable impact on further development of ESP research and heralded the emerging field of rhetorical or discourse analysis (Hutchinson, Waters, 2010). With it, the concern of research has shifted to “the relationships between EST grammar and lexicon and the authors’ rhetorical purposes” (Johns, 2013: 24).

In the late 1970s, R. Bley-Vroman (1978: 280) defined the goals of ESP rhetorical theory, stating that it should attempt “to establish a correspondence of purpose with device,” with ‘device’ signifying linguistic means employed by the author to achieve the desired end. Another contribution came with the publication by E. Tarone et al. (1981), which appeared in the first issue of *The ESP Journal (ESPJ)* and was reprinted in Swales’ *Episodes* (1988). As opposed to some of their predecessors, Tarone and her colleagues did not try to generalize about the features of scientific language across genres. Instead, they focused on – what they considered – one key characteristic of a narrow range of research articles in astrophysics, i.e. the passive voice. Having formulated their hypotheses about the functions of the selected grammatical feature and its impact on authors’ rhetorical decisions, they tested their conclusions by involving an expert, or a “specialist informant” in their research project.

4. Introducing key ESP concepts (1981-1990)

The publication of J.M. Swales’ (1981) monograph *Aspects of Article Introductions* in the UK marks the beginning of a subsequent period (Johns, 2013). In it, the author presented an approach which also appeared in the expanded form in his *Genre Analysis* (1990). Being widely recognized, it initiated “a research boom that has yet to end” (Johns, 2013:

26). Also, owing to an attempt made by *The ESPJ* editors, John Swales and Ann Johns, in the editorial for Volume 6 (3), the scope of ESP research – at that time limited to EST in academic contexts – considerably expanded, eventually returning to the original broad definition of ESP proposed by P. Strevens (1977). The editors' initiative led to a rapid increase in article submissions, to both special and not "special" issues. The most-frequently raised topics in the latter included needs analysis (NA), genre and rhetorical moves. They are still extremely productive for researchers and are discussed below since they continue to predominate in the ESP theory and practice.

4.1. Needs Analysis (NA)

In the years following the publication of the first issue of *The ESPJ* in 1981, there appeared a series of articles on NA, which is considered the core of ESP practitioner's work (Dudley-Evans and St John, 2009). Before the 1970s, NA was quite informal and very little research was done to assess learner needs since teaching was based on "some kind of intuitive or informal analysis of students' needs" (West, 1994: 1). The 1970s saw a more detailed NA. It was then that NA entered the literature of the subject as a formal concept that was largely defined in terms of the *target situation analysis*. Wilkins' (1976) notional-functional syllabus made important contribution to the development and promotion of NA (White, 1988). The focus on functions culminated in Munby's (1978) performance-based approach, which postulated drawing up a profile of communicative needs underpinned by Hymes' (1971) notion of communicative competence. This type of NA was skills-based, i.e. when teaching oral skills for business purposes, for example, the actual course content was expressed in terms of different functions, e.g. negotiating, persuading, etc. The proposed approach to needs was a radical departure from the prevailing thinking at that time that based learner needs on lexicostatistical analysis of scientific prose and its grammatical structures (Flowerdew, 2013). However, in spite of their merits, both the functional and register analysis approaches to needs have been criticized on various grounds, and most importantly for providing only sparse empirical data on the target situation and not correlating grammatical findings with different text sections and their respective rhetorical purposes (for more details see Long, 2005).

As the concept of NA expanded over time, it included – in addition to target situation analysis – some extra components, such as subjective needs analysis, present situation analysis (Richterich and Chancerel (1977), learning needs analysis, discourse/genre analysis and means analysis (for more details see Dudley-Evans and St. John, 2009). In the mid 1980s, NA looked at EST discourse and its focus shifted from register to rhetoric. The 1990s saw a more genre-analytic perspective of target discourses, which incorporated the concept of situated tasks. NA thus became ethnographically oriented, with needs being articulated in terms of genres produced and enacted within appropriate discourse communities.

In keeping with the changes, research into learner needs has become more complex, increasingly empirical and triangulated. Multiple instruments and sources of data collection have been employed to ensure that a wide variety of data are gathered (Jasso-Aquilar, 1999; Boshier and Smalkoski, 2002; Jasso-Aquilar, 2005; Long, 2005; Hyland, 2006). The results of these findings have been triangulated to increase the credibility of research conducted. Also, recently it is also possible to observe a tendency to employ task-based NAs to collect quality data (Long, 2005; Gilabert, 2005) and the shift of NA focus from “the notions and functions supposedly required to satisfy various occupational language” (Long, 2005: 21) to expert insider knowledge.

Yet despite efforts to expand on NA research and incorporate the variety of needs, discourses and situations, NAs are still criticized on several grounds (for more details see Johns and Makalela, 2014). Not only is it argued that that institutional mandates and practices identified in the process of triangulated NA are often in conflict with those recognized by the learners themselves (Benesch, 2001; Jasso-Aquilar, 2005). It is also contended that analyses of learner needs cannot be theoretically neutral since researchers often bring pre-conceived notions and theories to their investigations (Benesch, 2001).

4.2. Genre and rhetorical moves

With the publication of the first issue of *The ESPJ* and *Aspects of Article Introductions* in 1981 as well as the appearance of *Genre Analysis* (1990), the terms like *genre* and *rhetorical moves* gained considerable importance in the ESP field (John, 2013). They

became popularized in Britain in the early 1980s owing to Swales' monograph and in other parts of the world shortly after the publication of his *Genre Analysis* (1990) (Hopkins and Dudley-Evans, 1988). Swales' Creating a Research Space model (the CARS model) (originally presented in a slightly different form) "has had a tremendous influence on genre analysis in ESP and on the teaching of academic writing, both to international or L1 students, or to professional writers wishing to publish in international journals" (Dudley-Evans, 2000: 6). This move-based approach is an attempt at capturing the ways in which academic writers justify and highlight their contribution to the ongoing research in the field. The three main moves proposed for the article introduction and a number of steps between them express how writers establish the research topic, outline the previous research and indicate a gap or possible extension of their work.

The term genre continues to be "highly salient" in ESP research (Johns, 2013: 28). At first it appeared in the subject literature to contrast various types of texts in terms of linguistic devices employed in them. Thus Morrow (1989) – following the example set by Barber (1962) – contrasted the use of conjuncts in business news stories and academic journal articles. Like Barber, he counted the number of conjuncts in two different genres under investigation. However, unlike Barber, he commented on communicative and pragmatic functions of linguistic means found within the researched texts.

The approach proposed by Swales has been extensively used to conduct genre-based research of different article sections, e.g. the abstract (Salager-Meyer, 1990), the methods section (Wood, 1982), the discussion section (Hopkins and Duddley-Evans, 1988), to name but a few. Initially, it was suggested that the models like the CARS model were generalizable and applicable to all academic disciplines. The research that followed specified some differences between them. Accordingly, it was argued that the move-based models are prototypes and the actual article examples found in academic writing "will vary in the degree to which they conform with this prototype" (Dudley-Evans, 2000: 9).

5. Recent developments (1990-present)

5.1. Importance of international journals

Since the first issue of what was then called *The ESP Journal*, established by Grace Burkhart from the American University of Washington, D.C., in 1981, there have also been founded other international ESP journals. All of them welcome submissions in English and publish articles which are important for our understanding of ESP research in the 21st century.

In 1992, Ilona Leki from the University of Tennessee and Tony Silva from the Purdue University became the founding editors of *The Journal of Second Language Writing (JSLW)*, which is published quarterly by Elsevier. Though the central focus of articles appearing in *The JSLW* is second/foreign language writing and writing instruction, the journal also publishes articles on academic argumentation, text analysis, ESP-related issues and genre-based studies (cf. a special issue 20 (1), 2011 “The future of genre in second language writing: A North American perspective”).

In 2001, Liz Hamp-Lyons and Ken Hyland established *The Journal of English for Academic Purposes (JEAP)*. It publishes ESPJ-like articles encompassing in scope aspects of needs analysis, teacher education, discourse analysis, corpus methodologies, acquisition studies in EAP contexts, research into writing and speaking at all academic levels, etc.

In May 2002, there appeared the first issue of *English for Specific Purposes World*, an international online journal publishing papers on topics related to a wide range of ESP issues. At this writing, there are 45 issues of the journal available at www.esp-world.info and a special issue devoted to syllabus design and materials development in ESP.

There is also *Ibérica*, the official journal of AELFE, the European Association of languages for Specific Purposes, which publishes articles relevant to the field, e.g. on genre analysis (cf. Dudley-Evans, 2000; Bhatia, 2002; LSP teacher education (cf. Basturkmen, 2014), metadiscourse research (cf. Flowerdew, 2015) (at <http://www.aelfe.org/>); also *The Asian ESP Journal* (at <http://www.asian-esp-journal.com/>) deals with key issues in the ESP field.

Recently, many of these journals have experienced a rapid increase in international submissions. The trend is significantly due to the fact that in different parts of the world

academics are currently required to publish in international journals in order to be promoted in their institutions. In many cases, this move is the result of efforts made by national educational organizations and individual institutions “to boost university rankings internationally” (Johns, 2013: 30).

5.2. Genre studies

Swales’ *Genre Analysis* (1990) launched a remarkably productive topic for the years to come. The research that followed its publication reflects developments in the theory of genre, both “in its move towards a more interdisciplinary perspective and diverse range of methods” (Tardy, 2014: 152).

The influence that came from the work of North American scholars of rhetoric and composition studies encouraged ESP researchers to go beyond traditional text analysis and to relate form patterns to discourse communities, their goals, values and practices. Bhatia (1993) described practical methodological procedures for conducting genre analysis which – drawing on the selected corpus of texts – integrates textual and social context analyses. Adopting a corpus-based approach to the study of academic genres, Hyland (2000) compared lexico-grammatical features and move structures within eight academic disciplines, ranging from the so-called “hard sciences” (i.e. the sciences) to the “soft sciences” (i.e. social sciences and humanities). Following the example set by Tarone et al. (1981), interviews with specialist informants have become central to this kind of research since they provide insights into *why* writers make choices that they do and help explain *how* these choices stem from underlying disciplinary values and practices.

The analysis of discourse structures did not neglect professional genres, e.g. corporate disclosure documents, letters of application, newspaper law reports or popularized medical texts (Paltridge, 2013). Investigations into professional genres drew on Bhatia’s work (Bhatia, 1993; Bhatia, 2004). As suggested, there is no hard and fast rule for conducting such analysis. A researcher might either commence with a text-first approach, i.e. analyze typical discourse patterns in texts, or with a context-first approach, i.e. examine the context in which the texts and produced and enacted.

The work of Hyland (Hyland, 2002; Hyland, 2014), as well as other researchers (e.g. Biber et al. 1994; Biber et al. 2004) has demonstrated that the use of language varies across disciplines and genres and that these differences have to be accounted for in genre studies. The use of corpora has been extremely useful to support conclusions reached in the studies about language use in specific settings and in specific genres, e.g. the British academic written English (BAWE Plus) corpus (<http://www2.warwick.ac.uk/fac/soc/al/research/collect/bawe>), the British academic spoken English (BASE Plus) corpus (<http://www2.warwick.ac.uk/fac/soc/al/research/collect/base/>), to name but a few.

Swales' (1998) *Other Floors, Other Voices* introduced the term “textography” into the ESP lexicon. As defined by Swales (1998: 1), textography refers to a method of text analysis that is “something more than a disembodied textual or discursal analysis, but something less than a full ethnographic account.” Adopting this approach, Swales (1998) studied the interactions of texts and contexts in three different discourse communities. To build a picture of the impact of individuals and their texts on and from their workplaces and disciplinary communities, he employed interviews, observations, broad analysis of textual histories and close analysis of key texts.

The broadening of analysis beyond form is also reflected in the studies that adopted an intertextual approach to genre analysis (Berkenkotter, 2001; Tardy, 2003) or integrated multiple modes (visual images or oral texts) into generic communication (Rowley-Jolivet, 2002 in Tardy, 2014.) Bhatia (2008) presented a framework for critical genre analysis (CGA), which combines analysis of text, genre, professional practice and culture. Studies in this vein investigate genre users and their engagement with texts through the use of interviews, surveys and/or ethnographic approaches (e.g. Flowerdew, 2004).

Apart from context-driven genre analysis, recent ESP research has also paid increased attention to exploring how individuals use and shape genre within larger communities. Adopting a corpus-based approach, Hyland (2008a) conducted discourse analysis of Swales' writing, placing particular emphasis on his strategies of self-representation. Concern with author identify has also led to adopting a multilingual research perspective and studying individual writer's work within the same genre across contexts and/or languages (Canagarajah, 2006 in Tardy, 2014).

As outlined above, a variety of methodological approaches to genre analysis have been adopted to study complexity of texts. These methods not only contribute to our understanding of the social and multimodal nature of the language put to different purposes, but also enhance our comprehension on how genres are created, responded to and appropriated by individual users to best suit their specific purposes (cf. Tardy, 2014).

Genre studies have had their pedagogical implications. Genre-based approach to teaching and learning emerged as a response to the process approach to teaching writing, which – as has been argued – neglects “the requirements of particular writing tasks and variation in individual writing situations” (Partridge, 2013: 398). In the ESP genre-based teaching and learning, genre-theory has also gone beyond regarding genres as rhetorical “text-types”, i.e. argument, exposition, etc., to considerations of genres as “a more social construct which shapes and is shaped by human activity” (Tardy, 2006: 79). A common strategy adopted to teaching and learning specific purpose genres is referred to as “metacommunicating” (Swales and Lindemann, 2002). It involves the explicit analysis of examples of selected genres in the ESP classroom with a view to heightening learners’ awareness of the genre-specific language features, rhetorical organization, and communicative purposes (Cheng, 2014).

Johns’ (1997) ethnographic approach to genre-based ESP pedagogy, which aims at developing learners’ academic literary skills, best illustrates the point. Looking outside of the text to the social context, she assumes that for the purpose of genre acquisition, students require not only textual knowledge, but also the knowledge of social practice, and the latter can only be acquired if they become involved in research of literary activity, including genres, i.e. when they interview expert genre users and/or observe users carrying out genres.

Similar conclusions are drawn Dressen-Hammouda (2008). Her study of a geology student’s experiences learning to write demonstrates how it is possible to benefit from a focus on genre, in relation to the acquisition of disciplinary identity. Accordingly, the researcher argues that the teaching of genres should not merely focus on their linguistic and rhetorical features. Since disciplinary identity considerably contributes to expert genre production, the teaching should also incorporate the particular disciplinary community’s “ways of being, seeing, and acting” (Dressen-Hammouda, 2008: 238).

5.3. Corpus linguistics

The period is also characterized by the increased use of corpus studies. Though some important research has been conducted on oral language, e.g. the University of Michigan Corpus of Spoken Academic English (MICASE) (at <http://micase.elicorpora.info/>), the majority of work done in the area concerned analyses of written academic genres (Johns, 2013).

Hyland's corpus research on lexical bundles (i.e. contiguous sequences of words that commonly go together) highlighted disciplinary variations in the academia (Hyland, 2007) as well as differences between professional and postgraduate writing (Hyland, 2008b). Postgraduate writing has also been investigated by Thomson (2000 in Flowerdew, 2014), who focused on citation practices in PhD theses in the field of agriculture. Charles (2006 in Flowerdew, 2014) – in turn - researched stance and the phraseology of reporting clauses in citations in native-speaker PhD theses in such disciplines as politics and materials science.

Hyland's (2005a, b) publications 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) belong to the most influential in the ESP corpus studies. Speaking of the ways in which writers relate to their readers, Hyland (2005b) also focused on “textual voice or community recognized personality.” Exploring differences between the “hard” and “soft” disciplines, he complemented his text-based research conducting interviews with specialist informants.

Attention has also been paid to “evaluative language” defined as the writer's attitude towards propositions discussed (cf. Hunston and Thompson, 2000 in Johns, 2013). Accordingly, a special issue of *The JEAP* (Vol. 2/4, 2003) was devoted to examining and critiquing evaluative language and its purposes within and among academic discourses. Moreover, attempts have been made to combine corpus linguistic techniques with the Swalesian (1990, 2004) approach to genre conceived as a goal-driven communicative event associated with particular discourse communities, e.g. Flowerdew and Forrest 's (2010) research on the patterning of the word *research* across different moves and steps across PhD reviews in applied linguistics.

In contrast to the wealth of corpus-based research on student and professional writing in the academy, there has been little investigation into EOP written texts (Flowerdew, 2014). Most corpus-based studies concern spoken interactions, e.g. Cambridge and Nottingham Corpus of Business English, which consists of spoken interaction recorded in a variety of business meeting settings (at <http://www.nottingham.ac.uk/research/groups/cral/projects/index.aspx>; McCarthy and Carter, 2001-2003), the Nottingham Health Communication Corpus (NHCC) (at <http://www.nottingham.ac.uk/research/groups/cral/projects/index.aspx>; Harvey, 2015), which currently consists of over half a million words of transcribed interactions between health professionals and patients.

Corpus-based studies most frequently explored the fastest growing branches of EOP, i.e. those associated with constantly expanding professions, like English for Business Purposes (EBP), English for Medical Purposes (EMP) or English for Legal Purposes (ELP). Though EST seems to have been a neglected area in corpus-based investigations of English for professional communication, initiatives of compiling a 100-million-word Corpus of Professional English, currently known as the Professional English Research Consortium (PERC) Corpus, are underway. At this writing, it is a 17-million-word corpus of Professional English in science, engineering, technology and other fields (at <http://scn.jkn21.com/~percinfo/>).

It is expected that future corpus-based studies will reflect “the increasing interdisciplinarity in the field” and the concomitant “hybridization of genres: (Flowerdew, 2014: 245). Further advances in software will certainly drive the nature of corpus analysis forward. When complemented with genre analysis and ethnographic approach to data interpretation, corpus linguistics will undoubtedly make important contribution to ESP research in the years to come.

One might as well expect that the use of corpora in the ESP classroom will become more popular in the future. As demonstrated by the results of a questionnaire survey conducted in 2002 in 30 EAP support units at UK universities, 16 made no use of corpora at all (Thomson, 2006), whereas concordancing, defined as “a means of accessing a corpus of text to show how any given word or phrase is used in immediate context in which it appears” (Flowerder, 1996: 1), was being used in only about one in ten ESP/EAP courses in the United Kingdom (Jarvis, 2004).

The use of corpora in ESP teaching and learning seems to be justified by the fact that ESP learners are rarely conversant with highly specific language use. Neither do fluent ESP practitioners have much intuitive understanding of the way language is used in certain professional areas. Although the majority of research into specialist corpora discusses pedagogical implications of the findings, some researchers (cf. Swales, 2004; Lee and Swales, 2006) are doubtful about any direct impact of corpus analysis on ESP teaching and learning. There are, however, studies like Harwood's (2005) that provide information on the differences between corpus evidence and language use in academic writing textbooks, and thus point to an important link between corpus data and ESP teaching. Such findings have led to revisions in ESP syllabus content, and greater use of corpus data in EGAP textbooks, e.g. Schmitt and Schmitt (2005; 2011). They have also begun to influence ESP materials in many areas (Nesi, 2013).

The use of corpora in ESP teaching and learning can range from providing examples that illustrate accepted language use, or are a starting point for gap-filling and matching exercises to adopting an approach referred to as data-driven learning (DDL), the term coined by Johns (1989) to describe one-to-one writing consultations, during which the student and advisor explored online corpus data to solve language problems encountered by the student. Depending on the teaching/learning objectives, data-driven learning activities might encourage students to create and analyze concordances, n-grams (or "lexical bundles" e.g. 'the end of') or produce wordlists for the purpose of revising for a test or designing ESP materials, etc. They might as well result in "technology enhanced rhetorical consciousness-raising (Lee and Swales, 2006: 72).

Approaches to corpus work in relation to ESP teaching are changing in response to advances in technology (Nesi, 2013). On the one hand, the more powerful corpus tools are, the more possible it is to gain access to larger corpora and discover more about language use in specific settings. On the other, the more complex and powerful tools are, the less accessible they become to students and teachers.

6. Future developments

In his *envoi* to *New Directions in English for Specific Research*, John Swales (2014) – reflecting on the long way ESP has come in terms of research practices – states that over the last 50 years, the field has not only become deeper, but also broader. These developments can be attributed to the fact that many of the topics, which have been around in the field for some time, like the genre, needs assessment, for example, have been revisited and thus enriched with new insights and perspectives. Also, the formerly narrow field that could be defined “as having a few expert specialists at the top, followed by a large number of relatively unadventurous and underprepared practitioners” (Swales, 2014: 271) has expanded. However, a commendable body of research conducted in different parts of the world has remained unpublished, published in language other than English, e.g. *ASP: La revue du GERAS*, or in regional journals e.g. in the Brazilian *The ESPecialist*.

In future some of the research topics will undoubtedly continue to be revisited and re-explored, like the genre, a topic initiated in 1981. It is likely that more attention and resources will be devoted to genres unexplored so far, like poster discussions, conference presentations or research group meetings (Swales, 2014). Genre analysis might be considerably aided by corpus linguistic techniques employed to collect and analyze mega-databanks of authentic spoken and written discourse. Future developments in software will not only move corpus analysis forward, but will also provide researchers with access to larger corpora, allowing them to support their statistical claims about language use in specific settings. Also, as pointed out by Swales (2014: 274), one would expect that “the currently insecure relationship between corpus linguistics and ESP practice” might, as the years go by, “clarify what the corpus is most good for and what it is less good for.”

Future research investigations will undoubtedly witness further interest in NA and a further move away from the objective, hard kind of assessment pioneered by Munby (1978) to “softer” analysis, more open to the subjective needs of the learners themselves and other relevant parties involved in the process of ESP teaching, i.e. ESP teachers, consultants, administrators (cf. Swales, 2014). Concern with ESP teacher development, given the specificity and demanding nature of [E]SP teaching (Lesiak-Bielawska, in press) and the fact that “the literature on [E]SP teacher education is surprisingly limited” (Basturkmen, 2014: 17), will certainly lead to research initiatives focusing on ESP teacher needs which constitute a basis for determining the content of ESP teacher education programmes. Researchers will probably also continue to be interested in what actually happens in the ESP classroom,

especially given the fact that in the past 50 years there has been “all too little careful research” conducted in this area (Swales, 2014: 273). They might as well focus their attention on less-popular academic locales, such as vocational and secondary schools, different businesses, on-line media, etc. (Johns, 2013).

As concluded by A.M. Johns (2013), future ESP research agenda might be characterized by a *variety* of topics under investigation and methodologies adopted to research specific issues. Owing to further diversification of investigation locales, it may also bring to the fore more specific *contexts* as well as greater research *complexity* realized through methodological triangulation. Last but not least is more *critique* of the researcher’s work, the researcher him/herself as well as ESP teaching procedures launched (Johns, 2013). Doubtless, future ESP research might also introduce and explore topics different from the ones that have been the most salient so far.

Publicly available corpora referred to in the text

www.esp-world.info

<http://www.aelfe.org/>);

<http://www.asian-esp-journal.com/>

<http://www2.warwick.ac.uk/fac/soc/al/research/collect/bawe>

<http://www2.warwick.ac.uk/fac/soc/al/research/collect/base/>

<http://micase.elicorpora.info/>

<http://www.nottingham.ac.uk/research/groups/cral/projects/index.aspx>

<http://scn.jkn21.com/~percinfo/>

References

- Barber C.L. 1962. Some measurable characteristics of modern scientific prose. In *Contributions to English Syntax and Phonology*. Gothenburg Studies in Linguistics 14. Stockholm: Almqvist and Wiksell. Reprinted in Swales (1988: 1-14).
- Basturkman H. 2010. *Developing Courses in English for Specific Purposes*. New York: Palgrave Macmillan.
- Basturkmen H. 2014. LSP teacher education: Review of literature and suggestions for the research agenda. *Ibérica* 28 pp. 17-34.
- Benesch S. 2001. *Critical English for Academic Purposes: Theory, Politics and Practice*. NJ: Lawrence Erlbaum.
- Berkenkotter C. 2001. Genre systems at work: DSM-IV and rhetorical recontextualization in psychotherapy paper work. *Written Communication* 18 pp. 326-347.
- Bhatia V.K. 1993. *Analysing Genre: Language Use in Professional Settings*. New York: Longman.
- Bhatia V.K. 2002. Applied genre analysis. A multi-perspective model. *Ibérica* 4 pp. 3-19.
- Bhatia V.K. 2004. *Worlds of Written Discourse: A Genre-Based View*. London: Continuum.
- Bhatia V.K. 2008. Genre analysis, ESP, and professional practice. *English for Specific Purposes* 27 pp. 161-74.
- Biber D., Conrad S., Cortes V. 2004. If you look at ...: Lexical bundles in university teaching and textbooks. *Applied Linguistics* 25 pp. 371-405.
- Biber D., Conrad S., Reppen R. 1994. Corpus-based approaches to issues in applied linguistics. *Applied Linguistics* 15 pp. 169-89.
- Bley-Vroman R. 1978. Purpose, device and level in rhetorical theory. In M.T. Trimble, L.P. Trimble, K. Drobic *English for Specific Purposes: Science and Technology* (pp. 278-88). English Language Institute: Oregon State University.
- Bosher S., Smalkoski K. 2002. From needs analysis to curriculum development: Designing a course in health-care communication for immigrant students in the USA. *English for Specific Purposes* 21 pp. 59-79.

- Cheng A. 2014. ESP classroom research: Basic Considerations and future research questions. In D.D. Belcher, A.M. Johns, B. Paltridge (eds.). *New Directions in English for Specific Purposes Research* (pp. 44-72). Ann Arbor: University of Michigan Press.
- Dressen-Hammouda D. 2008. From novice to disciplinary expert: Disciplinary identity and genre mastery. *English for Specific Purposes* 27 pp. 233-52.
- Dudley-Evans T., St John M.J. 2009. *Developments in English for Specific Purposes: A Multi-disciplinary Approach*. Cambridge: Cambridge University Press.
- Dudley-Evans T. 2000. Genre analysis: A key to a theory of ESP? *Ibérica* 2 pp. 3-11.
- Flowerdew J. 1996. Concordancing in language learning. In M.C. Pennington (ed.). *The Power of CALL* (pp. 97-113). Houston: Athelstan.
- Flowerdew J. 2004. The discursive construction of a world-class city. *Discourse & Society* 15 pp. 579-605.
- Flowerdew J. 2015. Revisiting metadiscourse: Conceptual and methodological issues concerning signaling nouns. *Ibérica* 29 pp. 15-34.
- Flowerdew J., Forrest R. 2010. Schematic structure and lexico-grammatical realization in corpus-based genre analysis: The case of 'Research' in the PhD review. In M. Charles, D. Pecorari, S. Hunston (eds.) *Academic Writing: At the Interface of Corpus and Discourse* (pp. 15-36). London: Continuum.
- Flowerdew L. 2013. Needs analysis and curriculum development in ESP. In B. Paltridge, S. Starfield (eds.). *The Handbook of English for Specific Purposes* (pp. 366-88). Chichester: Wiley-Blackwell.
- Flowerdew L. 2014. ESP and corpus studies. In D.D. Belcher, A.M. Johns, B. Paltridge (eds.). *New Directions in English for Specific Purposes Research* (pp. 222-51). Ann Arbor: University of Michigan Press.
- García Mayo M. del Pilar, 1998-1999. The development of ESP: Language description and its influence of pedagogical materials. *Revista de Lenguas para Fines Específicos*, 5-6 pp. 203-28.

- Gilabert R. 2005. Evaluating the use of multiple sources and methods in needs analysis: a case study of journalists in the Autonomous Community of Catalonia (Spain). In M.H. Long (ed.) *Second Language Needs Analysis* (pp. 182-99). Cambridge: Cambridge University Press.
- Halliday M. A., McIntosh A., Strevens, P. 1964. *The Linguistic Sciences and Language Teaching*. London: Longman.
- Harwood N. 2005. What do we need EAP teaching materials for? *English for Academic Purposes* 4 pp. 149-61.
- Hopkins A., Dudley-Evans A. 1988. A genre-based investigation of the discussion sections in articles and dissertations *English for Specific Purposes* 7 pp. 113-22.
- Hutchinson T., Waters A. 2010. *English for Specific Purposes: A Learning-Centred Approach*. Cambridge: Cambridge University Press.
- Hyland K. 2000. *Disciplinary Discourses: Social Interactions in Academic Writing*. Harlow, U.K. Longman.
- Hyland K. 2002. Specificity revisited: How far should we go? *English for Specific Purposes* 21 pp. 385-95.
- Hyland K. 2005a. *Metadiscourse*. London: Continuum.
- Hyland K. 2005b. Stance and engagement: A model of interaction in academic discourse. *Discourse Studies* 7 pp. 173-92.
- Hyland K. 2006. *English for Academic Purposes. An Advanced Resource Book*. New York: Routledge.
- Hyland K. 2007. As can be seen: Lexical bundles and disciplinary variation. *English for Specific Purposes* 27 pp. 4-21.
- Hyland K. 2008a. "Small bits of textual material": A discourse analysis of Swales' writing. *English for Specific Purposes* 27 pp. 143-60.

Hyland K. 2008b. Academic clusters: text patterning in published and post-graduate writing. *International Journal of Applied Linguistics* 18 pp. 41-62. http://www2.caes.hku.hk/kenhyland/files/2012/08/Academic-clusters_text-patterning-in-published-and-postgraduate-writing.pdf [Retrieved June 9, 2015].

Hyland K. 2014. Disciplinary specificity: Discourse, context, and ESP. In D.D. Belcher, A.M. Johns, B. Paltridge (eds.). *New Directions in English for Specific Purposes Research* (pp. 6-24). Ann Arbor: University of Michigan Press.

Hymes D. 1971. *On Communicative Competence*. Philadelphia: University of Pennsylvania Press.

Jarvis H. 2006. Investigating the classroom applications of computers on EFL courses at higher education institutions in UK. *Journal of English for Academic Purposes* 3 pp. 111-37.

Jasso-Aguilar R. 1999. Sources, methods and triangulation in needs analysis: A critical perspective in a case study of Waikiki hotel maids. *English for Specific Purposes* 18 pp. 27-46.

Jasso-Aguilar, R. 2005. Sources, methods and triangulation in needs analysis: A critical perspective in a case study of Waikiki hotel maids. In M.H. Long (ed.). *Second Language Needs Analysis* (pp. 127–158). Cambridge: Cambridge University Press.

Johns A.M. 1997. *Text, Role and Context: Developing Academic Literacies*. Cambridge, U.K.: Cambridge University Press.

Johns A.M., Makalela L. 2014. Needs analysis, critical ethnography, and context: Perspectives from the client – and the consultant. In D.D. Belcher, A.M. Johns, B. Paltridge (eds.). *New Directions in English for Specific Purposes Research* (pp. 197-221). Ann Arbor: University of Michigan Press.

- Johns M.A. 2013. The history of English for Specific Purposes research. In B. Paltridge, S. Starfield *The Handbook of English for Specific Purposes* (pp. 22-49). Chichester: Wiley-Blackwell.
- Johns M.A. 2015. English for Specific Purposes: The state of the art. (An online interview with Ann M. Johns). *International Journal of Language Studies* 9 pp. 113-20.
- Johns T. 1989. Whence and whither classroom concordancing? In T. Bongaerts, P. de Haan, S. Lobbe, H. Wekker (eds.). *Computer Applications in Language Learning* (pp. 9-33). Dordrecht, the Netherlands: Foris.
- Lackstrom J.E., Selinker L., Trimble L.P. 1972. Grammar and technical English. *English Teaching Forum*, X (5). Reprinted in Swales (1988: 58-68).
- Lee D.Y.W., Swales J.M. 2006. A corpus based EAP course for NNS doctoral students. Moving from available specialized corpora to self-compiled corpora. *English for Specific Purposes* 25 pp. 56-75.
- Lesiak-Bielawska E.D. in press. Specificity of teaching Languages for Specific Purposes (LSP): Implications for LSP Teacher Education. In U. Czyżewska (ed.). *Teaching Foreign Languages to Meet the Needs of the Labour Market* (in press) [In Polish].
- Long M.H. 2005. Methodological issues in learner needs analysis. In M.H. Long (ed.) *Second Language Needs Analysis* (pp. 19-76). Cambridge: Cambridge University Press.
- Morrow P.R. 1989. Conjunct use in business news stories and academic journal articles: A comparative study. *English for Specific Academic Purposes* 8 pp. 239-54.
- Munby J. 1978. *Communicative Syllabus Design*. Cambridge: Cambridge University Press.
- Nesi H. 2013. ESP and corpus studies. In B. Paltridge, S. Starfield *The Handbook of English for Specific Purposes* (pp. 451-73). Chichester: Wiley-Blackwell.
- Paltridge, 2013. Genre and English for Specific Purposes. In B. Paltridge, S. Starfield *The Handbook of English for Specific Purposes* (pp. 389-409). Chichester: Wiley-Blackwell.
- Phillipson R. 2012. *Linguistic Imperialism*. Oxford: Oxford University Press.

- Richterich R., Chancerel J.L. 1977. *Identifying the Needs of Adults Learning a Foreign Language*. Strasbourg: Council of Europe/Oxford: Pergamon.
- Rodgers, C. 1986. *Freedom to Learn*. Merrill Publishing Company.
- Salager-Meyer F. 1990. Discoursal flaws in medical English abstracts: A genre analysis per research- and text-type. *Text* 10 pp. 365-84.
- Schmitt D., Schmitt N. 2005. *Focus on Vocabulary: Mastering the Academic Wordlist*. London: Longman.
- Schmitt D., Schmitt N. 2011. *Focus on Vocabulary 2: Mastering the Academic Wordlist*. 2nd ed. London: Longman.
- Stevens P. 1977. Special purpose language learning: A perspective. *Language Teaching and Linguistic Abstracts* 10 pp. 145-163.
- Swales J.M. 1981. *Aspects of Article Introductions*. Aston ESP Research Reports No.1. Birmingham, U.K.: University of Aston.
- Swales J.M. 1988. *Episodes in ESP: A Source and Reference Book on the Development of English for Science and Technology*. New York: Prentice Hall.
- Swales J.M. 1990. *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.
- Swales J.M. 1998. *Other Floors, Other Voices: A Textography of a Small University Building*. Mahwah, NJ: Lawrence Erlbaum.
- Swales J.M. 2004. *Research Genres: Exploration and Applications*. Cambridge, U.K.: Cambridge University Press.
- Swales J.M. 2014. Envoi. In D.D. Belcher, A.M. Johns, B. Paltridge (eds.). *New Directions in English for Specific Purposes Research* (pp. 271-74). Ann Arbor: University of Michigan Press.

- Swales J.M., Lindemann S. 2002. Teaching the literature review to international graduate students. In A.M. Johns (ed.). *Genre in the Classroom: Multiple Perspectives* (pp. 105-19). Mahwah, NJ: Lawrence Erlbaum.
- Tardy C.M. 2003. A genre system view of the functioning of academic research. *Written Communication* 20 pp. 7-36.
- Tardy C.M. 2006. Researching first and second language genre learning: A comparative review and a look ahead. *Journal of Second Language Writing* 15 pp. 79-101.
- Tardy C.M. 2014. ESP and multi-method approaches to genre analysis. In D.D. Belcher, A.M. Johns, B. Paltridge (eds.). *New Directions in English for Specific Purposes Research* (pp. 145-73). Ann Arbor: University of Michigan Press.
- Tarone E., Dwyer S., Gillette S., Icke V. 1981. On the use of passive in astrophysics journal papers. *ESP Journal* 1 pp.123-40. Reprinted in Swales (1988: 188-205).
- Thompson P. 2006. Assessing the contribution of corpora to EAP practice. In Z. Kantaridou, I. Papadopoulou, I. Mahili (eds.). *Motivation in Learning Language for Specific and Academic Purpose* (pp. 1-19) Macedonia: University of Macedonia.
http://www.reading.ac.uk/internal/appling/thompson_macedonia.pdf
[Retrieved June 7, 2015]
- West R. 1995. ESP – The state of the art. *ESP SIG Newsletter*, pp.16-26.
- White R.W. 1988. *The ELT Curriculum*. Oxford: Basil Blackwell.
- Widdowson, H. 1979. The description of scientific language. In H. Widdowson *Explorations in Applied Linguistics*. Oxford: Oxford University Press.
- Wilkins D. 1976. *Notional Syllabuses: A Taxonomy and its Relevance to Foreign Language Curriculum Development*. Oxford: Oxford University Press.
- Wood, A.S. (1982) An examination of the rhetorical structures of authentic chemistry texts *Applied Linguistics* 3 pp. 121-43.