International Journal of Language Studies
Volume 19, Number 2, April 2025, pp. 31-50 | DOI: 10.5281/zenodo.15250799

AI and discourse analysis: Implications for ESP genre pedagogy in EFL settings

Paola CATENACCIO, Università degli Studi di Milano, Italy

The advent of generative AI is bound to revolutionize professional writing practices. This will inevitably have an impact on writing pedagogies, particularly in the ESP writing courses where speakers of English as a second language are taught to master the principles of domain-specific communication alongside general language skills. While concerns have been raised as to the future of professional writing and writing pedagogy in the era of AI, this article argues that learning to use generative AI tools offers an unprecedented opportunity for students to develop discourse analytical skills that have traditionally been sidelined in ESP genre teaching as they pertained more to the writing process than to the product, the latter taking typically priority—in the minds of students and teachers alike—over the former. This is a welcome development which does justice to the principles of genre pedagogy.

Keywords: ESP; ESP Teaching; Generative AI; Genre Pedagogy; Specialized Communication

1. Introduction

This paper aims to offer some considerations on the role of discourse analysis in English for Special Purposes (ESP) genre pedagogy in English as a Foreign Language (EFL) settings, with special regard to the impact of AI text generating tools on both educational and professional practices.

Discourse analysis is a broad approach to the study of discourse and communication at the language-society interface. Central to discourse analysis are two key tenets, which Bhatia et al. (2008, p. 1) summarise as follows:

> . . . the idea that language can be analysed not just on the level of the phoneme/morpheme, the word, the clause or the sentence, but also on the level of the text, and the idea that language ought to be analysed not as an abstract set or rules, but as a tool for social action. Although early conceptualizations of discourse analysis were seen as an offshoot of linguistic analysis, focusing more on the 'language as text' side of the equation . . ., in its present form it has moved to more of a focus on 'language in use', drawing on insights from sociology, psychology, semiotics, communication studies, rhetoric, as well as disciplines such as

ISSN: 2157-4898; eISSN: 2157-4901

> business and marketing, accountancy, organizational studies, law and information technology, to name only a few. In this regard, it has evolved as a fruitful way of understanding the use of language in a variety of institutional, academic, workplace and professional settings.

Discourse analysis investigates—amongst other things—the way in which language and text 'function' in social settings, and in particular the manner in which they are used to carry out actions within the framework of socially recognized activities. Discourse analytical approaches to specialized communication focus in particular on the role of genres as standardized forms of intercommunication among members of specialized discourse communities, typically professional (including academic), institutional or organizational.

In these communities, discourse—both spoken and written, but especially written—is constitutive, i.e., it is the means whereby the community is both identified by external stakeholders and identifies itself. Mastering disciplinary discourse is essential to qualify as a member of a given community (Bhatia, 1997; Devitt et al., 2003; Miller, 1984; Swales, 1988). For this reason, 'learning the lingo'—but also, and more importantly, the textual conventions—of a profession is an essential component not only of professional apprenticeship, but also of disciplinary training, particularly at university level. In university EFL courses, the teaching of English is eminently disciplinary, and is aimed at providing students with the linguistic competences required to effectively communicate in their field of expertise. Genre pedagogy focuses specifically on providing future professionals with these discipline-specific competences. Examples of scholarly work highlighting the role of genre pedagogy in ESP teaching abound, and have been featured extensively in this journal (Casan-Pitarch, 2015; Domenec, 2017; Pashapour et al., 2018; Pirmoradian et al., 2024; Salmani Nodoushan, 2011; Salmani Nodoushan & Khakbaz, 2011; Salmani Nodoushan & Montazeran, 2012; Townley & Riazi, 2014).

The advent of AI writing tools has caused more than a fluster in both academic and professional circles, raising both concerns and expectations (Al-Zaghir et al., 2023; Felten et al., 2023; Ghaffary, 2023; Hadan et al., 2024; Hartenberger, 2023; Heikkilä, 2023; Keegin, 2023; Nicoletti & Bass, 2023; Nield, 2023). There is little doubt that AI writing tools have ushered in a new era of content generation. Powered by Large Language Models (LLMs), they operate on user prompts, generating text based on the provided input. The process relies on extensive training data (which includes a broad range of texts from a variety of genres) which are fed into the LLMs. These use deep learning neural networks mimicking the functioning of the human brain to predict the most appropriate words fulfilling the tasks outlined in the prompts. Extensively trained on a vast corpus of knowledge, these tools are extremely powerful, and the text they produce is surprisingly human-like.

The quality of the text produced by widely available AI writing tools such as ChatGPT is often very good, especially for text belonging to highly standardised genres, as is the case with much text produced in specialised domains. The reason for this is fairly easy to surmise: given the importance of predictability in automatic text generation, the more predictable (i.e., standardized) the text, the better the chances for text generating tools to carry out the task in a way that matches the expectations of the text user. Indeed, as (Steele, 2023, pp. 2-3) recently remarked in an academic paper, "its facility in obeying the conventions of nearly any genre or style is truly a thing to behold," the more astonishing because "although ChatGPT is mimicking the conventions of human language use, its command of such conventions is a struggle for many people," and especially for second language users.

As is often the case with ground-breaking innovations, the technology has both enthusiastic promoters and apocalyptic-sounding detractors, the former convinced that it represents a viable solution to all of their communication needs, including the most complex, and the latter concerned that it will replace human experts but at the expense of quality and creativity. Educators are particularly at a loss when deciding what to make of both potentialities and perceived shortcomings of the tools. Is their use to be avoided at all costs or embraced in the classroom? Do they impair or can they enhance learning? Do they increase or decrease motivation? For educators training language experts—future professionals who are being taught to perform the very same tasks that text generating tools are so apt at—the dilemma is compounded by the awareness that by the time current students enter the job market, the competences they have worked so hard at acquiring may be out-of-date, or altogether obsolete.

As one such educator, I can testify to the urgency felt by both fellow educators and students for an understanding not only of how these tools work (though this is of course of paramount importance), but also of how to best exploit their potential by leveraging existing competences and developing new ones. This paper offers some reflections on the above-mentioned points. Starting from an analysis of the competences required to master effective communication in domain-specific contexts, it discusses evolving students' needs in the age of AI, with a focus on the role of discourse analysis in the new professional writing arena.

2. Training (prospective) professionals in technical writing

In the short time since the release of AI tools to the public, their use in ESL teaching has literally exploded. New research reporting on the impact and potential of generative writing tools in the ESL classroom is being published daily, and any overview that may be provided here is bound to become quickly

obsolete. What follows is therefore a most definitely not-exhaustive list of exemplificative references which appeared to be most relevant at the time of revising this article for publication. Research on generative AI and language learning, with specific reference to writing skills (where the technology performs most efficiently) comprises studies of attitudes towards the technologies involved (Praphan & Praphan, 2023; Sumakul et al., 2022; Teng, 2024), reviews of automated writing assistance tools (Alharbi, 2023), reports on experimental uses of AI-powered technologies (Al Mahmud, 2023; Losi et al., 2024; Marghany, 2023; Wale et al., 2024; Wiboolyasarin et al., 2024), assessments of outcomes (Fathi & Rahimi, 2024; Gayed et al., 2022; Marzuki et al., 2023), considerations on the empowering effects of AI tools (Jiang, 2022), and reflections on the metacognitive skills required (and simultaneously fostered) by the adoption of AI tools in teaching and learning (Ghafouri et al., 2023; Liu et al., 2023; Hwang et al., 2023). As the breadth of the topics covered testifies, this is a vast field that calls for investigation on multiple levels. In this article, I will focus on the opportunities generative AI tools offer to develop skills that have traditionally been included in the expected outcomes of professional writing instruction, but which have rarely been consistently pursued in the classroom owing to an overwhelming focus on linguistic, as opposed to more general discursive, proficiency. The remainder of this paper is devoted to clarifying what I specifically mean by 'discursive' in the context of professional writing, and how generative AI can help enhance discursive competence.

2.1. (Prospective) professionals' needs

In developing my argument, I am writing from the vantage point of a language expert teaching English as a Foreign Language to university students aiming to become language and communication professionals employable in a potentially vast number of specialized domains (from grant application to report writing, from public relations to translation services to multicultural human resource management, etc.). In order to be successful students first, and successful professionals later, they need to be able to use English correctly (1) to fulfil their academic tasks, and (2) to function in their future professional domain(s). To reach the first goal, students must acquire academic English skills and apply them to the domain of linguistics. As for the latter goal, the domains where they will have to operate in the future are impossible to predict; as a result, teaching focuses on selected areas of expertise (most notably, in my case, business and scientific English), but includes transferrable skills that should equip them to handle language and communication demands in fields of which they have no previous experience.

Most important among these transferable skills are metalinguistic and metapragmatic competences, i.e., the ability to understand the way language is

used in a given communicative situation to fulfil its communication purposes and to replicate such use, adapting it where necessary to different communicative coordinates and varying communicative goals. In other words, students are expected to learn how to identify linguistic and communicative patterns associated with recurrent situations and to re-use the communicative strategies thereby identified in situation-appropriate manners. Of course, linguistic competences are only part of the overall skills students need to master in order to fully understand "what is going on" in any given situation. However, the training they have received in language analysis within a pragmatic framework should enable them to fully appreciate the role of language in the performance of professional tasks, and to contribute with their specific expertise to the successful outcome of operations in which they are involved as language professionals. In particular, they should be versed in managing linguistic nuance and subtleness, and be able to adapt them to best fit the requirements of the unfolding communicative situation (*in situ*) or match evolving scenarios (across a time span).

2.2. Genre pedagogy: Meeting students' needs

Over the last three decades, ESP teaching practices have been increasingly focused on teaching students domain-specific terminology (for instance, business lexicon) within its context of use (such as business negotiations), with explicit instruction provided on the textual conventions that characterize recurring situations. Special attention is given to scripts (typically oral) and genres (generally written), with an emphasis on patterns and regularities, in line with what is advocated for in genre-based pedagogical approaches (Devitt, 2009; Hyland, 2003, 2007, 2008; Paltridge, 2014; Russell et al., 2009; Yasuda, 2011; to name but a few).

As mentioned in the introduction, the notion of genre is crucial in teaching English for Special Purposes. The approach to teaching I have adopted falls within the tradition of the English for Specific Purposes school of genre analysis (see Bhatia et al., 2008). In Bhatia et al.'s (2008) description, "genre analysis . . . can be viewed as the study of situated linguistic behaviour in institutionalized academic or professional settings" (Bhatia et al., 2008, p. 10). Early studies in genre analysis and theory have been defined as

> . . . attempts to offer increasingly more complex ('thicker') descriptions of language use, incorporating, and often going beyond, the immediate context of situation, taking analyses beyond mere linguistic descriptions to offer explanations for specific uses of language in conventionalized and institutionalized settings. As we can see, the most important feature of this approach . . . is the emphasis on conventions. (Bhatia et al., 2008, p. 10)

This type of genre analysis is generally associated with the work of Swales (1990) and Bhatia (1993), other often quoted scholars being Bazerman (1988), Martin (1993), Freedman and Medway (1994), Hyon (1996), Paltridge (1997) and Devitt (2004). All these scholars share an emphasis on the social and rhetorical nature of genre, an approach first outlined by Miller (1984) in a seminal paper in which she defined genre as "typified rhetorical action based in recurrent situations" (Miller, 1984, p. 159), further maintaining that "as action, [genre] acquires meaning from situation and from the social context in which that situation arose" (Miller, 1984, p. 163).

Common to the notions of genre put forth by the above-mentioned academics—besides the focus on conventions—is an explicit correlation between textual (linguistic and rhetorical) features and context—a link based on the pragmatic principle that language does things (Austin, 1962), i.e., is used for purposeful actions (see Paltridge, 1995). The notion of purpose, or goal, is crucial to the definition of genre. Featured in all definitions of genre developed in the above-mentioned literature (and much more), it was prominent in the very first conceptualizations of the notion. In one of the earliest ones (Swales 1981), which precedes Miller's, genre is defined as "a more or less standardized communicative event with *a goal or a set of goals* mutually understood by the participants in that event" (Swales, 1981, p. 19; emphasis added). In the same essay, Swales also insists that for a genre to be identifiable it is necessary that "viable correlations" be established "between cognitive, rhetorical, and linguistic features" in a form that is "sufficiently conventionalized" to make it possible to infer "generalizations that will capture certain relationships between function and form" (Swales, 1981, p. 10). The overall communicative goal of a text belonging to a given genre is pursued by means of a succession of sub-goals: for instance, to persuade potential donors to part with their money, fundraising letters typically contain an outline of the cause for which money is being raised, the credentials of the organization, and an actual solicitation for contributions, with additional content being also possible, though not strictly necessary (see Upton, 2002). These sub-goals, or moves, are further broken down into steps, each additional subdivision providing a progressively more concrete description of the kind of content that can appear at a given point in a sequentially organized text, with specific linguistic features being closely associated with each step.

While the principles of genre analysis described above may seem easy enough to understand, their implementation is not quite as straightforward. The actual identification of move boundaries, for instance, has often proved challenging. For one, interpretation of communicative functions is a cognitive task difficult to access and operationalize. One shared assumption about move analysis, for instance, is that it needs to be done manually (Kanoksilapatham, 2007, p. 33); underlying motives can only be retrieved inductively, and demand an in-depth

understanding of the contexts of situation where genres occur—which is why discourse analysis is essential to genre writing. To understand what genres 'do', it is necessary to be cognizant of the social situation where they are used, and of all their attendant coordinates (participants, goals, values etc.). As Bazerman puts it,

> . . . the problem of the recognizability of meaning is in large part a matter of recognizing situations and actions within which meanings are mobilized through signs. Interactants' familiarity with domains of communication and relevant genres makes the kind of communication recognizable: establishing roles, values, domains of content, and general actions that then create the space for more specific, detailed, refined utterances and meanings spelled out in the crafted words. (Bazerman, 2012, p. 227)

This has considerable implications for teaching: familiarity with domain-specific communication can only be gained through ratified participation in situations where such communication occurs. Students are by definition unfamiliar with these—which means that teaching them how to handle domain-specific genres necessarily entails providing them with explicit information about contexts, practices, roles and purposes. In Bazerman's words,

> . . . aiding student development to read and write in situations with which they are less familiar (such as those in research disciplines or professions) requires that we become explicit about the communicative situations, social organization, and activities they are engaging in. The articulation of goals and repeated success in achieving them feeds back into increased motivation and engagement. Equally, in non-school settings, explicit analysis of communicative situations and options provides means to increase levels of practice, engagement, and success, as well as more effective organization of social systems through redesigning genres and flows of documents. (Bazerman, 2012, p. 227)

Thus, competent professionals—and in particular competent communication professionals—need not only to master linguistic resources and become familiar with standardised patterns, but also to be able to evaluate the outcomes of their communicative actions and establish connections between the strategies used and the resulting effects. This requires a sustained exercise of critical skills (see Hyland, 2004, on genre pedagogies) and heightened pragmatic and metapragmatic awareness to be developed within the framework of a broader comprehension of disciplinary discourse. Such awareness must be explicitly taught—by means of what Hyland has called "rhetorical consciousness raising" (Hyland, 2008, p. 559)—to students, but

also promoted among professionals, as it is only through continued reflective practice that professional expertise can be fully developed and practitioners empowered to not only replicate consolidated patterns but to exploit variation possibilities (Hyland, 2004).

2.3. Unfulfilled expectations in genre pedagogy

As this brief overview suggests, text-writing competences include knowledge of textual patterns and linguistic conventions, but are also inherently linked to the ability to "read" context and its multiple variables. In theory, the two components go hand in hand. In practice, though, especially when specialized communication is taught within the framework of ESP teaching, the focus has predominantly remained on text. That this is a problem has long been recognized. Back in 2008, Bhatia lamented precisely this:

> One of the major criticisms of teaching English for Specific (Professional) Purposes has been that although students, when placed in professional settings, can handle textual features of some of the professional genres, they are still unaware of the discursive realities of the professional world. The blame, in my view, does not rest with the learners but with the teachers and discourse/genre analysts who treat professional genres as simply textual artifacts (Bhatia, 1993; Bhatia, 1994; Swales, 1990). Although it is true that much of genre analysis, especially in the British tradition, is undertaken within the general background of 'contextual factors' emerging from relevant professional practices and cultures, these professional practices have never been taken seriously enough. (Bhatia, 2008, p. 161)

In part at least, this failure to pay sufficient attention to context is due to the EFL framework within which genre instruction often takes place: while the need to teach language-in-context is universally recognised, it is a fact that in the eyes of instructors and students alike, formal correctness often takes precedence over pragmatic effectiveness. This is not to say that pragmatic effectiveness is undervalued; still, a text that approximates pragmatic effectiveness, at least ideally, but substantially deviates from shared norms of grammatical correctness or lexical adequacy (for instance, in terms of collocational patterns) can hardly be considered suitable either in an educational or in a professional setting. Nonetheless, one cannot but concur with Bhatia's conclusions that there is a "need to go from text to context in order to undertake a comprehensive and critical view of discursive practices" (Bhatia, 2008, p. 162). Fifteen years since the publication of this critique, his remarks fully retain their validity: "teachers and discourse/genre analysts" still tend to "treat professional genres as simply textual artifacts (Bhatia, 1993; Bhatia, 1994; Swales, 1990)" (Bhatia, 2008, p. 161); students continue to have

trouble recognising "correlations between cognitive, rhetorical, and linguistic features" (Swales, 1981, p. 10); and there is some evidence of a persisting disconnect between abstract knowledge of a genre, and the ability to actually "perform" genre in real-life situations—a disconnect that only exposure to institutional and professional practices appears to help overcome (Natale, 2023), and that does not seem to have been given sufficient consideration in research to date (see Kessler & Tuckley, 2023).

While by no means generalizable, my own teaching experience of genre-based instruction and assessment with advanced students of English training to become communication professionals largely confirms the above. In my courses, I have adopted an approach to teaching that closely reflects well-established principles of genre pedagogy (Hyland, 2004), including a focus on context. Students are encouraged to explicitly reflect on their writing, and assessment is based not only on the quality of the texts they produce based on a task outline that simulates a real-life professional situation, but also on an accompanying commentary, where they are expected to justify their rhetorical and linguistic choices on the grounds of both genre conventions and the requirements of the communicative situation outlined in the task.

Among the genres students are instructed in are the press release, the business proposal and the fundraising letter, all of them being highly conventionalized texts extensively featured in business and organizational communication textbooks. Students' performances show that they do not always manage to fully grasp the complexities and subtleties of the outlined situation, which often results in poor content and/or strategy selection. In some cases, the misunderstanding is macroscopic; for instance, they may fail to understand whether a business proposal is solicited or unsolicited, which inevitably leads them to botching their strategy. In other cases, their strategic errors are subtler—they may introduce a new product stating that the reason why they are doing so is to increase the company's revenue; which is, of course, true, and a persuasive argument for a shareholder, but not for a potential customer. Moreover, while the majority of them do appear to have mastered formal genre conventions, succeeding in describing them adequately, there is often a mismatch—which they fail to spot even though the task explicitly requires that they reflect on this point—between their stated communicative purposes and the linguistic resources they use. For instance, they may state—correctly—that the body of a press release should aim for objectiveness and neutrality in order to successfully mimic news style, and then use strongly evaluative language better suited to the pseudoquote(s) typically included in press releases. Eventually, the greatest majority of students do succeed in producing texts of a professionally acceptable quality; however, the effort required to develop the metacognitive competences necessary to adequately perform the tasks far exceeds that needed to learn textual patterns and conventions.

3. AI text generating tools: Pedagogical implications for genre analysis approaches to ESP writing

In the previous section I have outlined the principles of genre pedagogy in the ESP classroom, its strong points and its perceived weaknesses. In summary, it can be stated that genre pedagogy rests on two key aspects of professional communication: (1) its high level of conventionalization, which results in a strong focus on patterns in genre description and instruction; and (2) the existence of a close link between the rhetorical organization of genres and the social and institutional contexts in which they occur, which proponents of genre analysis agree should be equally emphasized and explicitly taught in the ESP classroom, something that is widely recognized to often remain an only partially fulfilled goal.

To anybody only superficially familiar with AI writing tools it is immediately apparent that the highly conventionalized nature of professional communication makes it an ideal candidate for successful AI text generation. After all, this is what AI excels at: "sophisticated parroting," as Darics and van Poppel (2023) have called it. Given a sufficiently standardized pattern, ChatGPT can reproduce it with a good degree of accuracy: the more conventionalized the genre, the better the output. In this, ChatGPT *et similia* are more than likely to far surpass writers (especially novice ones) in performance. All you need is good prompting, and the ability to assess, and if necessary amend or fine-tune, the output.

Good prompting and competent output assessment require skills that are not textual *stricto sensu* (i.e. they do not have to do only with text structure and patterning), but rather contextual. Indeed, these skills are precisely those which, while featuring prominently in genre pedagogy, have been routinely sidestepped because of concerns with formal linguistic correctness: in order to provide suitable prompts, and to assess whether the output matches the writer's intentions, (prospective) professionals must (1) understand the communicative coordinates of a given situation, (2) be able to explicitly codify the action required to respond to it, and (3) exercise critical skills on the text generated by the AI tool, evaluating it at the linguistic and pragmatic levels, and adjust it if needed, either manually, or through further prompting.

These are complex abilities that, at the moment at least, go beyond the capabilities of AI text generating software. They are located at a higher level of abstraction than text composition, and involve an ability to reflect on language and communication. Best described as meta-competences (i.e., competences about competences), they involve reflexive awareness (an expression used by Culpeper and Haugh with reference to metapragmatic competence, but which can be extended to other meta-competences, such as metacommunicative and metalinguistic competence) (Culpeper & Haugh, 2014, p. 240)—that is, an

awareness, on the part of participants in a communicative event, of the activity that is taking place, including the participant roles assigned or claimed, the goal(s) of the interaction, the linguistic cues whereby roles and goals are signaled and pursued etc.

Effective prompting and assessment can only be achieved if the prompter-evaluator possesses these meta-competences and masters the linguistic resources to explicitly verbalize them in a form that can be fed to the software. Fine-tuning of the output obtained may require direct intervention aimed at making the final text more closely respondent to the communicative goals of the encoder. This may also involve a conscious departure from the prototypical patterns that characterize genres in their standard form either because the encoder intends to pursue "private intentions" within "socially recognized communication purposes" (Bhatia, 1995), or because changing socio-cognitive needs require an update of generic configurations (Berkenkotter & Huckin, 1995). That genres are "dynamic rhetorical forms" (Berkenkotter & Huckin, 1995, p. 3) has long been recognized, and it has been shown that the adaptation of generic forms to better meet communicative goals can result in innovation (Smart, 2006). Recently, as Hafner et al. (2023) have pointed out, following Tardy (2016) "there has been renewed interest in . . . genre innovation and the role that it could play not only in the development of genres over time but also pedagogically, in genre learning" (Hafner et al., 2023, p. 116). At any rate, it is unlikely—at the moment at least—that AI text generating tools can come up with innovations—unless, of course, adequately prompted. Which takes us back to the previous point: for ChatGPT to deliver, it has to be prompted by proficient professionals. As Azaria et al. have put it, "ChatGPT is a remarkable tool—for experts" (Azaria et al., 2023).

In a way, we are back to square one. What is needed to harness the potential of ChatGPT are precisely the competences that have proven so elusive in genre-theory approaches to ESP writing so far. This may appear as a disadvantage, but may in fact prove an opportunity. That this should be the case is being increasingly recognized: in a recent contribution, Gašević et al. (2023) have argued that while existing AI technologies "generate exceptionally convincing human-like textual responses across a range of different genres," they remain in many respects largely inadequate. The inadequacies cited by the authors concern primarily issues of trustworthiness and reliability, but they can be extended to include the issues of adequacy referred to above, the achievement of which requires the exercise of meta-competences. In the current scenario, Gašević et al. argue that there is "a need to identify effective learning and teaching practices that will harness the weaknesses of generative AI technologies as opportunities for promoting higher-order learning (e.g., analyze and scrutinize outputs produced by ChatGPT)" (Gašević et al., 2023, p. 3).

Investigations of the types of competences needed to engage with AI suggest that such engagement has the potential to promote the types of "higher order learning" needed by communication professionals. A recent study by Dynel (2023), which discusses users' self-reported interactions with ChatGPT posted on Reddit's r/ChatGPT discussion forum, found evidence of conscious awareness of metalinguistic, metadiscursive, metacommunicative and metapragmatic practices on their part, leading the author to conclude that

> interacting with AI not only reflects but also potentially boosts language users' metalinguistic, metacommunicative and metapragmatic awareness. This is because users are motivated to ponder on relevant issues in order to ask questions, inspired by previous user reports or by their own user experience with the chatbot. (Dynel, 2023, p. 122)

Dynel (2023) further suggests that "Redditors' metapragmatic/metalinguistic commentaries provoked by the interactions" suggest that "users are inclined to engage with previous users' discoveries involving ChatGPT and linguistics," thereby "learning about and/or contemplate the 'meta' practices depicted therein" (p. 122).

Research on the impact of AI on teaching and learning is still in its infancy, and at the time of writing this chapter, literature on AI-supported genre-based writing focused mostly on academic genres, with a prevalence of papers dealing with aspects of academic honesty and plagiarism. Professional genres, especially in EFL contexts, do not appear to have inspired as much research so far, though studies on writing practices in general are on the rise. In one particularly insightful study, Steele (2023) argues that ChatGPT can be used in the classroom to "teach writing conventions in a way that recognizes that they are simply social conventions, not fixed laws of the universe" (Steele, 2023, p. 4). She describes a number of tasks that may be assigned to students to develop such awareness, concluding that

> . . . [t]he point is that a tool like ChatGPT pushes us to think analytically about how writing is undertaken, how it is structured, how it is sourced. Students are empowered by learning to think critically about these matters rather than taking every convention at face value. (Steele, 2023, p. 5)

AI text generating tools have the potential to help teachers succeed precisely where they have often failed before, i.e., in maintaining a firm focus on discourse analysis when teaching writing conventions. This is not to say that writing conventions should no longer be taught. Quite the opposite: to be able to assess the quality of an output, it is necessary to fully understand such conventions; but output assessment offers great opportunities for analytical

thinking, and also for creative input. In this sense, AI-assisted writing has the potential to stimulate the development of critical skills that often remain underdeveloped in students, no matter how much teachers insist on them.

4. Conclusion

In this article I have offered a reflection on the potential impact of AI text generating tools on ESP genre pedagogy. As one of the most influential approaches to ESP writing, especially in EFL, and more generally foreign language settings, genre analysis is broadly used across the world to train students in the writing of academic and professional genres. A key tenet of genre analysis is the correlation between genre conventions and social situation: genres perform rhetorical actions, and are used to pursue socially recognized goals. Mastering genre conventions is one of the hallmarks of expertise in any given professional field. Genre pedagogy endeavors to train students in the appropriate use of genre conventions within their fields of expertise, focusing not only on textual and linguistic aspects, but also on the way in which these are designed to fulfil specific communicative goals. Identifying the latter, and making genre-appropriate linguistic choices that maximize the success of the rhetorical action undertaken is no easy task, and requires advanced critical skills that encompass an in-depth understanding of the communicative event within which the rhetorical action embodied by the genre is located.

The development of the critical skills needed for effective genre writing has often lagged behind in genre pedagogy, not because educators failed to understand its importance, but because often the challenge of learning genre conventions detracted students' attention from the analysis of the situation.

AI-powered writing tools are extraordinarily good at replicating patterns. This makes them eminently suitable to assist in ESP genre writing. What these tools cannot do, however, is analyze the situation. They need prompts, and these prompts must by definition provide an outline of the communicative goals that the text to be generated is expected to pursue. Formulating the prompts, assessing the output, and fine-tuning it to maximize its effectiveness requires precisely those skills that have so far been often left underdeveloped in educational settings, their acquisition being often deferred to informal learning in professional settings.

Integrating AI writing tools in genre pedagogy can help foster reflexivity and develop higher-level skills (most notably metacommunicative, metalinguistic and metapragmatic ones) that have the potential to enhance metacognitive competences. Far from implying a reduction in the competences required to be effective communication professionals, the advent of AI text generating tools calls for more competences—just not of the same kind.

The Author

Paola Catenaccio (Email: paola.catenaccio@unimi.it) is Full Professor of English Linguistics and Translation at Università degli Studi di Milano, where she teaches at both undergraduate and postgraduate level. She has published extensively in a vast range of domains, including ESP pedagogy and digital humanities. Both her research and her teaching rely on discourse analytical approaches supported by corpus linguistics techniques. Among her most recent publications in the fields of ESP teaching and digital texts and tools are "Teaching CSR Discourse: A Critical Approach to Business English" (Cambridge Scholars, 2022) and "Digital humanities: An adaptive theory approach" (Bloomsbury Academics).

References

Al Mahmud, F. (2023). Investigating EFL students' writing skills through artificial intelligence: Wordtune application as a tool. *Journal of Language Teaching and Research*, *14*(5), 1395-1404.

Alharbi, W. (2023). AI in the foreign language classroom: A pedagogical overview of automated writing assistance tools. *Education Research International*, *1*, 4253331.

Al-Zaghir, Z., Alnaqbi, N., Matroud, A. A., & Abdalgader, K. (2023). Exploring opportunities and challenges of using ChatGPT in professional writing instruction. *2023 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE)*, (pp. 1-6), IEEE. https://doi.org/10.1109/TALE56641.2023.10398234

Austin, J. L. (1962). *How to do things with words* (2nd ed.). Harvard University Press.

Azaria, A., Azoulay, R. & Reches, S. (2023). ChatGPT is a remarkable tool—For experts. *Data Intelligence*. https://doi.org/10.1162/dint_a_00235

Bazerman, C. (1988). *Shaping written knowledge: The genre and activity of the experiment article in science*. University of Wisconsin Press.

Bazerman, C. (2012). Genre as social action. In M. Handford & J. P. Gee, (Eds.), *The Routledge handbook of discourse analysis* (pp. 226-238). Routledge.

Berkenkotter, C., & Huckin, T. N. (1995). *Genre knowledge in disciplinary communication: Cognition/culture/power*. Lawrence Erlbaum.

Bhatia, V. K. (1993). *Analysing genre: Language use in professional settings*. Longman.

Bhatia, V. K. (1994). Generic integrity in professional discourse. In B.-L. Gunnarsson, P. Linell & B. Nordberg (Eds.), *Text and talk in professional contexts* (pp. 61-76). ASLA: Skriftserie nr 6.

Bhatia, V. K. (1995). Genre-mixing and in professional communication: The case of "private intentions" v. "socially recognised purposes." In P. Bruthiaux, T. Boswood & B. Du Babcock (Eds.), *Explorations in English for professional communication* (pp. 1-19). City University of Hong Kong.

Bhatia, V. K. (1997). The power and politics of genre. *World Englishes*, *16*(3), 359-371.

Bhatia, V. K., Flowerdew, J., & Jones, R. H. (2008). Approaches to discourse analysis. In V. K. Bhatia, J. Flowerdew & R. H. Jones (Eds.), *Advances in discourse studies* (pp. 1-19). Routledge.

Casan-Pitarch, R. (2015). The use of metadiscourse in the writing of Spanish and English research articles. *International Journal of Language Studies, 9*(4), 1-20.

Culpeper, J., & Haugh, M. (2014). *Pragmatics and the English language*. Palgrave Macmillan.

Darics, E., & van Poppel, L. (2023). Debate: ChatGPT offers unseen opportunities to sharpen students' critical skills. *The Conversation*, February 20th, 2023. https://theconversation.com/debate-chatgpt-offers-unseen-opportunities-to-sharpen-students-critical-skills-199264

Devitt, A. J. (2004). *Writing genres*. Southern Illinois University Press.

Devitt, A. J. (2009). Teaching critical genre awareness. In C. Bazerman, A. Bonini & D. Figueiredo (Eds.), *Genre in a changing world* (pp. 341-354). Parlor Press.

Devitt, A. J., Bawarshi, A., & Reiff, M. J. (2003). Materiality and genre in the study of discourse communities. *College English*, *65*(5), 541-558.

Domenec, D. (2017). A comparative study of rhetorical moves in English and Spanish research article abstracts. *International Journal of Language Studies, 11*(2), 1-18.

Dynel, M. (2023). Lessons in linguistics with ChatGPT: Metapragmatics, metacommunication, metadiscourse and metalanguage in human-AI interactions. *Language & Communication, 93*, 107-124.

Fathi, J., & Rahimi, M. (2024). Utilising artificial intelligence-enhanced writing mediation to develop academic writing skills in EFL learners: A qualitative study. *Computer Assisted Language Learning*, 1-40. https://doi.org/10.1080/09588221.2024.2374772

Felten, E. W., Raj, M., & Seamans, R. (2023, March 1). How will language models like ChatGPT affect occupations and industries? *SSRN*. https://doi.org/10.2139/ssrn.4375268.

Freedman, A., & Medway, P. (1994). *Genre and the new rhetoric*. Taylor & Francis.

Gašević, D., Siemens, G., & Sadiq, S. (2023). Empowering learners for the age of artificial intelligence. *Computers and Education: Artificial Intelligence*, *4*, 100130. https://doi.org/10.1016/j.caeai.2023.100130.

Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing Assistant's impact on English language learners. *Computers and Education: Artificial Intelligence, 3*, 100055. https://doi.org/10.1016/j.caeai.2022.100055.

Ghaffary, S. (2023, September 21). Universities rethink using AI writing detectors to vet students' work. *Bloomberg*.

Ghafouri, M., Hassaskhah, J., & Mahdavi-Zafarghandi, A. (2024). From virtual assistant to writing mentor: Exploring the impact of a ChatGPT-based writing instruction protocol on EFL teachers' self-efficacy and learners' writing skill. *Language Teaching Research*. https://doi.org/10.1177/13621688241239764.

Hadan, H., Wang, D. M., Mogavi, R. H., Tu, J., Zhang-Kennedy, L., & Nacke, L. E. (2024). The great AI witch hunt: Reviewers' perception and (Mis)conception of generative AI in research writing. *Computers in Human Behavior: Artificial Humans*, *2*(2), 100095. https://doi.org/10.1016/j.chbah.2024.100095.

Hafner, C. A., Harrison, S., Ho, W. Y. J., & Kwan, B. S. C. (2023). Digital mediation in ESP genres. *English for Specific Purposes*, *71*, 115-122.

Hartenberger, L. (2023, July 25). What AI teaches us about good writing. Noema. https://www.noemamag.com/what-ai-teaches-us-about-good-writing/

Heikkilä, M. (2023, August 7). AI language models are rife with different political biases. *MIT Technology Review*. https://www.technologyreview.com/2023/08/07/1077324/ai-language-models-are-rife-with-political-biases/

Hwang, W. Y., Nurtantyana, R., Purba, S. W. D., Hariyanti, U., Indrihapsari, Y., & Surjono, H. D. (2023). AI and recognition technologies to facilitate English as foreign language writing for supporting personalization and contextualization in authentic contexts. *Journal of Educational Computing Research*, *61*(5), 1008-1035.

Hyland, K. (2003). Genre-based pedagogies: A social response to process. *Journal of second language writing*, *12*(1), 17-29.

Hyland, K. (2004). *Genre and second language writing*. University of Michigan Press.

Hyland, K. (2007). Genre pedagogy: Language, literacy and L2 writing instruction. *Journal of second language writing*, *16*(3), 148-164.

Hyland, K. (2008). Genre and academic writing in the disciplines. *Language Teaching*, *41*(4), 543-562.

Hyon, S. (1996). Genre in three traditions: Implications for ESL. *TESOL Quarterly*, *30*, 693-722.

Jiang, R. (2022). How does artificial intelligence empower EFL teaching and learning nowadays? A review on artificial intelligence in the EFL context. *Frontiers in Psychology*, *13*, 1049401.

Kanoksilapatham, B. (2007). Introduction to move analysis. In D. Biber, U. Connor & T. Upton (Eds.), *Discourse on the Move* (pp. 23-42). John Benjamins.

Keegin, J. M. (2023, May 23). ChatGPT is a plagiarism machine. *The Chronicle of Higher Education*. https://www.chronicle.com/article/chatgpt-is-a-plagiarism-machine

Kessler, M., & Tuckley, L. (2023). Mapping metacognitive genre awareness with L1 and L2 writers: Investigating novices' engagement with an occluded genre. *Journal of Second Language Writing*, *62*, 101042.

Liu, C., Hou, J., Tu, Y. F., Wang, Y., & Hwang, G. J. (2023). Incorporating a reflective thinking promoting mechanism into artificial intelligence-supported English writing environments. *Interactive Learning Environments*, *31*(9), 5614-5632.

Losi, R. V., Putra, E. P., Ali, N., & Dewi, A. S. (2024). Using artificial intelligence (AI) to improve EFL students' writing skill. *International Journal of English and Applied Linguistics*, *4*(1), 62-70.

Marghany, M. M. (2023). Using artificial intelligence-based instruction to develop EFL higher education students' essay writing skills. *CDELT Occasional Papers in the Development of English Education*, *82*(1), 219-240.

Martin, J. R. (1993). A contextual theory of language. In B. Cope & M. Kalantzis (Eds.), *The powers of literacy: A genre approach to teaching writing* (pp. 116-136). University of Pittsburgh Press.

Marzuki, W., Rusdin, U., Darwin, D., & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, *10*(2), 2236469.

Miller, C. (1984). Genre as social action. *Quarterly Journal of Speech*. *70*(2), 151-167.

Natale, L. (2023). Writing at university and in the workplace: Interrelations and learning experiences at the beginning of the professional activity. In P. M. Rogers, D. R. Russell, P. Carlino & J. M. Marine (Eds.), *Writing as a human activity: Implications and applications of the work of Charles Bazerman* (pp. 125-142). University Press of Colorado.

Nicoletti, L., & Bass, D. (2023). Humans are biased: Generative AI is even worse. *Bloomberg*. https://www.bloomberg.com/graphics/2023-generative-ai-bias/

Nield, D. (2023, April 30). How ChatGPT and other LLMs work—and where they could go next. *Wired*. https://www.wired.com/story/how-chatgpt-works-large-language-model

Paltridge, B. (1995). Working with genre: A pragmatic perspective. *Journal of Pragmatics*, *24*(4), 393-406.

Paltridge, B. (1997). *Genre, frames, and writing in research setting*. John Benjamins.

Paltridge, B. (2014). Genre and second-language academic writing. *Language Teaching*, *47*(3), 303-318.

Pashapour, S., Ghaemi, H., & Hashamdar, M. (2018). A move analysis of research article abstracts: A cross-disciplinary study. *International Journal of Language Studies, 12*(3), 1-24.

Pirmoradian, M., Chalak, A., & Heidari Tabrizi, H. (2024). A genre-based analysis of research article abstracts in applied linguistics. *International Journal of Language Studies, 18*(1), 1-22.

Praphan, P. W., & Praphan, K. (2023). AI technologies in the ESL/EFL writing classroom: The villain or the champion? *Journal of Second Language Writing*, *62*, 101072.

Russell, D. R., Lea, M., Parker, J., Street, B., & Donahue, T. (2009). Exploring notions of genre in "academic literacies" and "writing across the curriculum": Approaches across countries and contexts. In C. Bazerman, A. Bonini & D. Figueiredo (Eds.), *Genre in a changing world* (pp. 395-423). Parlour Press.

Salmani Nodoushan, M. A. (2011). A structural move analysis of discussion sub-genre in applied linguistics. *International Journal of Language Studies, 5*(4), 1-12.

Salmani Nodoushan, M. A., & Khakbaz, N. (2011). Theses 'Discussion' sections: A structural move analysis. *International Journal of Language Studies, 5*(3), 111-132.

Salmani Nodoushan, M. A., & Montazeran, H. (2012). The book review genre: A structural move analysis. *International Journal of Language Studies, 6*(1), 1-30.

Smart, G. (2006). *Writing the economy: Activity, genre, and technology in the world of banking*. Equinox.

Steele, J. L. (2023). To GPT or not GPT? Empowering our students to learn with AI. *Computers and Education: Artificial Intelligence*, *5*, 100160.

Sumakul, D. T. Y., Hamied, F. A., & Sukyadi, D. (2022). Artificial intelligence in EFL classrooms: Friend or foe? *LEARN Journal: Language Education and Acquisition Research Network*, *15*(1), 232-256.

Swales, J. M. (1981). Aspects of article introductions. *Asian ESP Research Reports*, *1*, Aston University.

Swales, J. M. (1988). Discourse communities, genres and English as an international language. *World Englishes*, *7*(2), 211-220.

Swales, J. M. (1990). *Genre analysis*. Cambridge University Press.

Tardy, C. M. (2016). *Beyond convention: Genre innovation in academic writing*. University of Michigan Press.

Teng, M. F. (2024). "ChatGPT is the companion, not enemies": EFL learners' perceptions and experiences in using ChatGPT for feedback in writing. *Computers and Education: Artificial Intelligence*, 7, 100270.

Townley, P., & Riazi, A. M. (2014). Genre analysis of the results and discussion sections of applied linguistics research articles. *International Journal of Language Studies, 8*(2), 1-28.

Upton, T. A. (2002). Understanding direct mail letters as a genre. *International Journal of Corpus Linguistics*. *7*, 65-85.

Wale, B. D., & Kassahun, Y. F. (2024). The transformative power of AI writing technologies: Enhancing EFL writing instruction through the integrative use of writerly and Google Docs. *Human Behavior and Emerging Technologies*, 9221377. https://doi.org/10.1155/2024/9221377

Wiboolyasarin, W., Wiboolyasarin, K., Suwanwihok, K., Jinowat, N., & Muenjanchoey, R. (2024). Synergizing collaborative writing and AI feedback: An investigation into enhancing L2 writing proficiency in wiki-based environments. *Computers and Education: Artificial Intelligence*, *6*, 100228.

Yasuda, S. (2011). Genre-based tasks in foreign language writing: Developing writers' genre awareness, linguistic knowledge, and writing competence. *Journal of second language writing*, *20*(2), 111-133.