Constructing Professional Discourse
Constructing Professional Discourse: A Multiperspective Approach to Domain-Specific Discourses

By

Concepción Orna-Montesinos
To Carlos
TABLE OF CONTENTS

List of Illustrations ................................................................. ix
List of Tables ........................................................................... xi
Acknowledgements ................................................................. xiii
List of Abbreviations .............................................................. xv

Chapter One ............................................................................. 1
Discourse Practices of Domain-specific Professions
1. Professional Writing–The Text and the Context ....................... 1
2. Professional Writing–The World of Applications ..................... 6

Chapter Two ............................................................................. 17
Methodological Approaches to Professional Discourses
1. Using Corpus-based Methodology ...................................... 17
2. Retrieving and Interpreting Corpus Results ......................... 20
   2.1. Lexical Density
   2.2. Analysis of Frequency
   2.3. Analysis of Key Words
   2.4. The Formal Profile of Building
3. Researching Professional Genres: A Situational and Contextual
   View ....................................................................................... 29
   3.1. The Textbook Genre: An Interplay of Individuals,
       Communities and Institutions
4. Summary .................................................................................. 49

Chapter Three ........................................................................... 53
The Semantic Profile of Domain-specific Discourses
1. Textualization of Domain-Specific Discourses ...................... 53
   1.1. From Lexis to Semantics
   1.2. Semantic Relations in Domain-Specific Discourses
   1.3. Hyponymy and Meronymy in Lexical Ontologies
   1.4. Collocations and Lexico-grammatical Features of Domain
       -specific Discourses
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Information Organization of Disciplinary Writing</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>2.1. Lexical Cohesion in Disciplinary Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.2. Rhetorical Elements in Science and Technology Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3. Patterns of Textual Development</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Summary</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter Four</td>
<td>The Discourse Semantics of Domain-specific Discourses:</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Creating the Image of the Building</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Contextualization of Disciplinary Writing</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>1.1. Meaning in Use: Disciplinary Knowledge Embedded in Lexical Items</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Discourse Functionality of Domain-specific Concepts</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>2.1. From Lexico-grammatical Patterns to Disciplinary Views</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.2. Value Creation in Disciplinary Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Summary</td>
<td>168</td>
</tr>
<tr>
<td>Chapter Five</td>
<td>Constructing Professional Discourse: A Global View</td>
<td>169</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appendix A: The CTC</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>Appendix B: The CTBC</td>
<td>189</td>
</tr>
<tr>
<td></td>
<td>Appendix C: A WordTree of the Hyonyms of Building</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>Appendix D: A WordTree of the Meronyms of Building</td>
<td>203</td>
</tr>
<tr>
<td></td>
<td>Appendix E: Lexico-Grammatical Patterns of the Hyonyms of Building</td>
<td>207</td>
</tr>
<tr>
<td></td>
<td>Appendix F: Lexico-Grammatical Patterns of the Meronyms of Building</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>Bibliography</td>
<td>213</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

Figure 1-1. The Socio-cognitive Domain of Writing
Figure 1-2. Perspective on Discourse

Figure 2-1. Standardized Type/Token Ratio per Subarea
Figure 2-2. Verb and Noun Occurrences of Building
Figure 2-3. The ‘Authorship’ Move
Figure 2-4. The ‘Readership’ Move
Figure 2-5. Multidimensional Generic Knowledge

Figure 3-1. Word Associations of Building
Figure 3-2. Inclusion of Meaning
Figure 3-3. Inheritance of Meaning
Figure 3-4. Hierarchical Implications
Figure 3-5. Hierarchical Dualities
Figure 3-6. Incompatibility of Co-hyponyms
Figure 3-7. Co-hyponyms of Different Senses
Figure 3-8. WordNet / CTC hyponyms
Figure 3-9. A WordTree of the Hyponyms of Building
Figure 3-10. Wordnet / CTC Meronyms of Building
Figure 3-11. A WordTree of the Meronyms of Building
Figure 3-12. A Classifying Tree of the Hyponymic Taxonomy of Building

Figure 4-1. Semantic Taxonomy of the Modifiers of Building
Figure 4-2. Identifiers of the Noun Building
Figure 4-3. Descriptors of the Noun Building

Figure 5-1. A Multiperspective Approach to Domain-specific Discourses.
Figure 5-2. From the Text to the Context
LIST OF TABLES

Table 2-1. The CTC Corpus
Table 2-2. The CTC Corpus Types and Tokens
Table 2-3. The First 100 Words in the CTC
Table 2-4. Lexical Density in the BNC, the CTC and the SEEC
Table 2-5. Words Used less than Five Times
Table 2-6. Key Words in the CTC
Table 2-7. The Lemma Build
Table 2-8. Top 20 Clusters with the Lemma Build
Table 2-9. Summary of Moves of the Blurb
Table 2-10. The ‘Presenting the Textbook’ Move
Table 2-11. The ‘Authorship’ Move
Table 2-12. The ‘Readership’ Move
Table 2-13. The ‘Promoting the Textbook’ Move

Table 3-1. Distribution of Semantic Meaning of Building
Table 3-2. WordNet and CTC Hyponyms of Building
Table 3-3. Most Frequent Hyponymy Networks
Table 3-4. Most Frequent Hyponyms
Table 3-5. Low Frequency Hyponyms
Table 3-6. WordNet / CTC Meronyms of Building
Table 3-7. Most Frequent Meronymy per level
Table 3-8. Most Frequent Meronyms Networks
Table 3-9. Hyponymy v. Meronymy in the CTC
Table 3-10. Low Frequency Meronyms
Table 3-11. Hyponymy vs. Meronymy Low Frequency
Table 3-12. Summary of Hyponymy Patterns of Building
Table 3-13. Meronymy Patterns of Building
Table 3-14. Rhetorical Elements of the Discourse of Scientific and Technical English

Table 4-1. The Noun Phrase with Building as a Head Noun
Table 4-2. Building as a Modifier
Table 4-3. Semantic Classification of Modifiers of Building in the CTC
Table 4-4. Frequency of Modifiers of Building
Table 4-5. Semantic Taxonomy of the Identifiers of the Noun Building
Table 4-6. Semantic Taxonomy of the Descriptors of the Noun Building
Table 4-7. Design Guiding Principles and their Correlation with Modifiers
ACKNOWLEDGMENTS

My gratitude should go to many people. To Professor Carmen Pérez-Llantada for her support, advice and inspiration, always. To all the colleagues I have worked with in my life as a teacher and as a researcher, for helping me all the way along. To all my students, for making me want to be a better teacher every day. To my parents, my family and friends, and, very specially, to my niece Carmen and my nephew Juan, for being the joy of my life. To Carlos, for being near me.

Thanks. A little part of this should go to all of them.
LIST OF ABBREVIATIONS

A&BE  Architecture and Built Environment
B&C   Building and Construction
BNC   British National Corpus
BP    Building and Practice
CB    Conservation of Buildings
CE    Civil Engineering
CM    Construction Management
CTBC  Construction Textbook Blurbs Corpus
CTC   Construction Textbooks Corpus
ESP   English for Specific Purposes
HA    History of Architecture
PD    Planning and Design
SA    Sustainable Architecture
SE    Structural Engineering
SEEC  Student Engineering English Corpus
STTR  Standardized Type/Token Ratio
TA    Theory of Architecture
UD    Urban Design
CHAPTER ONE

DISCOURSE PRACTICES
IN DOMAIN-SPECIFIC PROFESSIONS

Efficient communication—in speech and writing—not only within the professional group, but also between different specialist groups and between experts and laymen, is absolutely vital for society to function properly.

(Gunnarsson, Linell, & Nordberg, 1997, p.1)

1. Professional writing—The text and the context

Studies of professional writing have emphasized that members of a professional community are expected to write different texts when carrying out their jobs (Barrass, 1978; Bazerman, 1991, 2001; Becher & Trowler, 2001; Hyland, 2000; Nowotny, Scott, & Gibbons, 2003; Wood, 2001). For scientists and engineers communication is a daily need because it is through communication, through language, that knowledge is created, that professionals interact, that social relations are established (Hyland 2000). When wondering about the reasons for writing, Barras answers that scientists and engineers write “to help us to observe, to remember, to think, to plan and to organize, as well as to communicate. Above all, writing helps us to think and to express our thoughts” (1978, p.1). Also Becher and Trowler justify the professional urge for communication since “a fresh insight, a new discovery, a novel invention, unless made available to others in the public domain, will remain no more than a piece of private intellectual property, fated to accompany its owner to the grave” (2001, p. 104).

As the previous quotes instantiate, first and foremost, scientists and engineers need to communicate with other members of the community in order to share new knowledge, a means to move the field ahead. Professionals thus become aware of the power of acquiring, constructing and disseminating knowledge in their community and thus of participating in the structures and values of their discipline as active members of their professional community. Through peer-to-peer communication they
construct disciplinary knowledge and at the same time negotiate their own professional identity as members of the community. The individual writer hence becomes a social actor in the process of disciplinary knowledge creation.

This socio-constructionist perspective (Bazerman & Paradis, 1991; Bhatia, 2004; Hyland, 2000) views writing as a process embedded into a social context of approved professional practices whose epistemology and social conventions determine how their texts are produced and received. In other words, meaning is negotiated within the frame of a disciplinary culture whose members share common goals, values and attitudes. Borrowing Becher and Trowler’s (2001) metaphor, professional communities are a “tribe”–their disciplinary community–with a particular “territory”–their professional setting–and with a shared “culture” in which their texts are produced and interpreted and, from a broader perspective, in which disciplinary knowledge is created, transmitted and moved ahead. Every tribe thus constitutes a ‘discourse community’ (Artemeva, 2004; Berkenkotter & Huckin, 1995; Berkenkotter, Huckin, & Ackerman, 1991; Bhatia, 2004, 2008; Dudley-Evans, 1994; Hyland, 2000, 2003; Swales, 1990) and they create their own discourse, shaped by sets of culturally-influenced discoursal conventions concerning their intended audience and communicative purpose.

Inherent to every discourse community is the number of genres employed by their members to convey their communicative purposes. Three genre traditions have been identified (see Hyon (1996) for a comprehensive analysis of genre theory). The Sydney School, based on the Systemic Functional Linguistic work of Halliday and Martin, focuses on goal-oriented social processes and stresses the purposeful, interactive and sequential character of genres, its particular linguistic features, particularly the organization of texts and its links to lexico-grammatical features. The focus of the North American New Rhetoric School, represented by the work of linguists such as C. Miller (1984) or Berkenkotter and Huckin (1995), lies on the social rhetorical action of genre and its socio-cultural aspects, “centered not on the substance or the form of discourse but on the action it is used to accomplish” (C. Miller, 1984, p. 1). As Artemeva (2004, p. 5) explains, a socially constructed view of writing emphasizes an awareness of what, how and why texts are produced, their context, audience and purpose. Finally, the English for Specific Purposes (ESP) approach represented by the influential work of Swales and Bhatia directs attention to the communicative purposes of genre, assuming that the textual practices of specialized genres are linked to the communicative
purposes the text needs to fulfill and to the influence the social context exerts on the genre.

These three major perspectives of genre, and particularly ESP genre analysts, share their stress on the social purposefulness of the genre. Defined as “types of goal-directed communicative events” (Swales, 1990, p. 42), “socially constructed, interpreted and used in specific academic, social, institutional and professional contexts” (Bhatia, 2004, p. 23), genres are recognized and understood by the expert members of the professional or academic community who use the genres. The social constructionist genre theory, proposed by Artemeva (2004), Bazerman, Little and Chavkin (2003), Berkenkotter and Huckin (1995) and C. Miller (1984), among others, plays an essential role in understanding the social dimension of genres. Expert members of a given discourse community utilize a number of strategies as typified rhetorical responses to recurrent communicative situations in their particular professional setting. A number of social connections are interwoven in the creation of texts and their interpretation cannot be isolated from the influence exerted on it not only by the discourse community in which it was conceived but also by the professional culture in which it is used and interpreted. Language is thus “embedded in (and constitutive of) social realities” (Hyland, 2003, p. 21) through which discourse communities are established and developed.

The growing interest in professional discourse has been attributed to the increasing differentiation and specialization of professions, which responds to the need to adapt disciplinary communication to achieve specific disciplinary goals and communicative purposes (Couture, 1992; Geluykens & Pelsmaekers, 1999; Gunnarsson, 2009; Gunnarsson, Linell, & Nordberg, 1997, Hyland 2000). The pioneering work of Bhatia (1993, 2004, 2008) has consistently advocated for the complementation of professional writing analysis with that of the professional practices, since both are being “co-constructed” (Bhatia, 2008, p. 161) in professional contexts. Professional discourses thus establish a complex web of professional and social interconnections, shaped by the communicative purposes to be achieved. As a result, because it is related to the ethos of the discipline in question, their discourse usually differs from that of other disciplines.

This theory foregrounds the close connection of genres to discourse communities, which implies that only insiders can understand and use their discoursal norms, values and ideology and can manipulate them to suit their social needs. Because, as Bhatia (2004, p. 87) points out, participants share a perception of genres as “conventionalized discursive actions” which imposes constraints not only on the purposes but also on
the structure, content and style of their discourse. It is not simply stylistic appropriateness but communication effectiveness that establishes generic content, positioning and intended audience. The members of a particular discourse community develop specific lexico-grammatical and discoursal conventions for transmitting specialized knowledge. Social conventions affect not only the product, the text, but also the process of writing the text, the social practices of the particular disciplinary context (Candlin & Hyland, 1999; Cheng & Mok, 2008; Freedman, Adam, & Smart, 1994; Geluykens, 2003; Halliday & Hasan, 1989).

Social and cultural connotations explain why each community imposes constraints in the way members use the language, the generic, rhetorical or lexico-grammatical choices, which regulate what is written, or what is silenced, and which help the author produce appropriate, convincing and engaging writing. This socio-cognitive dimension of the writing process is summarized by Bhatia (2002b) as interconnected spheres in which social practices, genres and texts contribute to the construction of discourse (Figure 1-1):

**SOCIO-CRITICAL PERSPECTIVE**

![SOCIO-CRITICAL PERSPECTIVE Diagram](image)

**PEDAGOGICAL PERSPECTIVE**

Figure 1-1. The Socio-cognitive Domain of Writing (Bhatia, 2004, p. 19).
Since meaning is derived from the situation and the social context in which genres are employed, genres are a form of situated linguistic behavior (Berkenkotter & Huckin, 1995; Bhatia, 2002a). This means that a given piece of writing can be better understood if the extra-textual information of motives and social relationships between objects and actors is made clear, as stated above, by locating the texts within the discourse community in which they are produced and received.

A professional approach to genre analysis should go beyond the discursive features of text and look into the situational and socio-cognitive factors which have scaffolded the construction, interpretation and exploitation of the genre. As Bhatia (2004, 2008) puts it, discourse is the complex product of a web of text-internal factors (lexico-grammar, discourse development and organization) and text-external factors (professional, academic or institutional conventions, disciplinary practices, disciplinary cultures) which validate the generic value of text analysis.

The analysis of the text has been sensibly reported to be a multiperspective process of contextualization (Askehave & Swales, 2001; Bhatia, 2004, 2008) which requires a textual analysis of the product, the text, and an ethnographic analysis of the process, the professional context in which the text is situated, or, as claimed by Hyland (2000) moving up from the individual to the collective. This model seeks to interpret the text as the complex product of a web of text-internal factors (lexico-grammar, discourse development and organization) and text-external factors (professional, academic or institutional conventions, disciplinary practices, disciplinary cultures) which validate the generic value of text analysis.

The analysis should thus move from textualization to organization and then to contextualization; in other words, from the text to the genre and to socio-cultural practices. Each phase of the analysis focuses on a different question, (cf. Bhatia 2002b, p. 17) from what features of lexico-grammar are statistically and functionally distinctive, to why people construct discourse the way we do, and, finally, to how discourse is constrained by the social practices, identities and structures. The whole complex and interrelated influences exerted upon the text are summarized by Bhatia (2008) in Figure 1-2.
2. Professional writing—The world of application

What happens when people talk about architecture? Are sullen lumps of concrete, steel and glass animated by the words that we shower upon them? (Forty, 2000, p. 11)

The construction engineering professional discourse

Inspired by questions such as those in this quote, the final step of this analysis of professional writing is what Bhatia (2004) calls the world of applications, which for him should complete a four-space genre based model of analysis of written discourse also including the word of reality, the world of private intentions, the world of analysis. This analysis of professional writing is exemplified in this volume with the particular discourse of the architecture and construction engineering profession, specifically applying the analytical tools proposed in the literature to the genre of specialized textbooks.

It is then necessary to understand the worlds of reality and private intentions of this profession, how expert members of this profession use and exploit discourse to achieve their specific communicative aims. And the reality of this profession is that both their professional and discoursal practices are dominated by buildings, the process and the product of the architecture and construction engineering profession. Construction professionals design buildings, construct them, evaluate them, reflect on them and write about them. In very few professions is one single object so clearly the unique object of their creation. Buildings are also essential for
Discourse Practices in Domain-specific Professions

us, the public. We need buildings. That does not mean it is a simple object, having so much attention centered around, involving so many different professionals and so many different users. As Lawson, an architect and scholar of architecture interested in the psychology of architecture, claims, buildings can be viewed in many different ways, “as works of art, as technical achievements, as the wallpaper of urban space and as behavioral and cultural phenomena” (2001, p. 4).

Buildings are social objects and constructing them is a social process in itself. As containers of human behavior, buildings acquire a social and cultural dimension as embodiments of the social relations established between buildings and their users. Buildings such as banks or prisons symbolize power. Those who construct buildings have the power to affect people’s lives, to affect, for instance, the kind of their houses, the amount of space they have or the distances they travel to work (Markus & Cameron, 2002, p. 69). Writing about buildings is also a social process since through writing “individuals develop relationships, establish communities, and get things done” (Hyland, 2003, p. 21). If, as Bazerman (2001) points out, disciplinary and professional power is enacted and harnessed through writing, those who write about buildings exert the power of knowledge, power exerted through the use of language.

Language plays an important role in the understanding of buildings. As Markus and Cameron (2002) explain, language is a necessary tool for making and understanding buildings, which thus pervade the professional and public discourse, both written and oral, of a myriad of participants in all sectors of society. Language plays a vital part in constructing the building, particularly in the long conversations between design teams, mainly composed of architects and engineers, conversations with other professionals (contractors, landscapers or builders), or conversations with clients; and also essential for understanding scholarly writing about buildings: pedagogical materials, professional journals and magazines, competition briefs, building legislation, media criticism, tourist information, etc.. The use of language is essential for the construction of a building, a non-verbal object, but one that involves a large amount of verbal discourse before it is designed, while it is being constructed and when it is later evaluated by the professionals.

As mentioned, writing has a social goal, since it is situated in a social context, the construction engineering community in this case, which means that texts can only be successfully interpreted in the social and cultural disciplinary context in which they are created and used. Writing is a response to the communicative purposes of the architecture and construction engineering community, to the rhetorical situation and to the
professional and cultural constraints in which the process of writing about buildings takes place. Therefore, the social and ideological values of the construction engineering community are reflected—or textualized—in texts about buildings. The response to buildings, that is, the expression of aesthetic, functional or moral judgments, and the evaluation of what it is a good or bad building is mediated by language, the vehicle through which the members of the community transmit disciplinary values to the public. Because buildings are “expressions of the people and society that built them” (Watt, 2007, p. 11), the value system reflects the ideological assumptions of their culture. As specialized writers point out (Le Dantec & Do, 2009; Watt, 2007, among others), our judgment on buildings depends on our personal preference but also on a number of conscious and subconscious values, beliefs, experiences or memories. By expanding and circulating judgments about buildings, whether in an overtly manner or more subtly, writing manages to shape subsequent responses on buildings, from other scholars or from politicians and institutions, finally managing to educate public taste.

Designing a building is a complex process, and so is writing about a building. The design of a building draws on the work of previous architects and engineers and becomes an example of hybridity (Markus & Cameron, 2002, p. 70), being the product of the many professional discourses involved in the design and construction of the building and of the many textual practices that have taken place before, during and after the design and construction process of the building. In the same way, disciplinary concepts are the result of the hybridity of discourses and textual practices, created from the many other writing activities of the discipline. Linking two fields of study, architecture and linguistics, Markus and Cameron (2002) have insightfully explored how language is used, and what it does, in the particular context of writing about buildings. In a historical analysis of the most widely used architectural genres, they conclude on the prescriptive character of genres such as treatises, textbooks, briefs and design guides, which intend to constrain current and future building design by telling what should or should not be done. Other genres such as historical scholarship, print and broadcast media reviews, guidebooks, exhibition and museum catalogues, estate agents’ or developers’ promotional literature fulfill the less constraining purpose of describing the building, although an analysis of these might reveal an explicit or implicit evaluative purpose. In this way, architectural discourse borrows features of what the authors call “marketized” or “promotional” discourse (p. 109), in which readers are addressed as consumers, to the point of becoming a hybrid language (Bhatia, 2004).
A repertoire of genres of particular interest for the field of architecture and civil engineering is also provided by (Roldán-Riejos, Santiago-López, & Úbeda-Mansilla, 2011), including formal e-mailing, summaries, abstracts, case-studies and reports (materialized in a variety of sub-genres such as design, feasibility, sustainability, conservation area, listed building consent, traffic and ecology reports).

The textbook genre

The textbook, the genre used in this volume to illustrate the analysis of professional discourse, represents a significant, though often misrepresented exemplar of the system of genres of professional discourse. Interpreted in the light of the professional context, the specialized textbook is, as Swales rightly argues (1995), a complex genre which involves a complex discourse to respond to the variety of communicative purposes. In the case of construction engineering textbooks, this complexity would be stressed by the particularity of the discursive practices of engineering, which represent a particular way of transferring the abstract knowledge of scientific research into applied everyday commonsense knowledge, and it is thus shaped by “a number of discourses that exist simultaneously and in some tension with each other, such as management, economics, sociology, politics, and development” (Archer, 2008, p. 255). Yet, the professional practices of the construction engineering profession define it as an even more complex specialty, as it involves one initial task, constructing the building, but the collaboration of two main professionals, architects and engineers, to jointly develop that task, which frequently implies a debate between the leading role and relevance of the two professions. Therefore, their discourses, though complementary, are sometimes contradictory and reflect the debate between architecture as art and engineering as science (Carvalho, Dong, & Maton, 2009; Conway & Roenisch, 2005; Forty, 2000; Hale, 2000; Lawson, 1994; Medway, 1994).

At the crossroads between academic discourse and professional practice, the textbook creates its own voice from the voices of other disciplinary texts and other genres by reproducing the “cacophony” (Hyland, 2005a, p. 101) of the voices and genres which characterize the communicative practices of the architecture and construction engineering profession, thus becoming a repository that summarizes, and legitimizes, the knowledge of the research community, of the research article, the laboratory report, the architecture magazine or the academic journal. It is in this complexity of influences that the textbook coincides with those studies (Bazerman, 1999; Bhatia, 2004, 2008; Bremner, 2008; Devitt,
which interpret professional texts in terms of both interdiscursivity (i.e., “the appropriation of semiotic resources across genres, professional practices and disciplinary cultures” (cf. Bhatia, 2008, p. 162)) and intertextuality (i.e., “the complex network of interaction, a structured set of relationships among texts, so that any text is best understood within the context of other texts” (Devitt, 1991, p. 336)). As these authors agree, professional writing develops in an intertextual environment in which texts are part of a dialogue of responses to other texts, and therefore any text is grounded in the multiple prior texts and voices that have configured disciplinary culture.

Not only is the creation of the textbook an example of hybridity, its purpose is also hybrid. Textbooks, and more precisely specialized textbooks, address a duality of audiences: learners on the one hand and construction engineering professionals on the other. First of all, a learner audience, for whom the genre becomes the primary source for the creation and expansion of scientific and technical truths, and therefore for the transmission of the image of technology and science from experts to the general public (Dimopoulos, Koulaidis, & Sklaveniti, 2003; Myers, 1992; Parkinson & Adendorff, 2004). By converting the new knowledge of scholarly research into—at least, theoretically–undisputed fact, the textbook becomes the authoritative, legitimate repository of disciplinary knowledge and thus performs the social action of acculturating future professionals into the epistemology of the discipline (Love, 1991; Parkinson & Adendorff, 2004; Richardson, 2004).

Thus the creation of knowledge involves different spheres of expertise (Cloître & Shinn, 1985). According to these authors, knowledge is created in the inner sphere of research expertise, the intra-specialist sphere, and subsequently transmitted to the trans-disciplinary sphere of technoscientific experts, the inter-specialist sphere, until it finally reaches the public through its pedagogical use. At the same time, the textbook also addresses a professional audience of scholars, practitioners or reviewers, already knowledgeable into the contents and rhetorical practices of the discipline, although perhaps specialized in a different specific area, which might also require a certain degree of acculturation. The need to accommodate, as Love (2002) points out, introductory concepts and cutting edge theories requires the textbook writer to accommodate their discourse to both audiences and to the duality of communicative purposes.

The importance of the textbook genre is also justified because of its privileged position in the transference of skills from academia and the profession. By linking both worlds, the textbook can provide an evidence-based response to the often discussed complaint of the divide between
academia and the reality of the profession (Artemeva, 2007; Becher & Trowler, 2001; Blakeslee, 2001; Bremner, 2008, 2010; Cheng & Mok, 2008; Dovey, 2006; Forey, 2004; Freedman et al., 1994; Kain & Wardle, 2005; Rose, 1998). The issue of the transferability of skills from school to workplace has been frequently challenged, particularly the adequate representation of the complex reality of professional communication in educational contexts. Textbooks can contribute to the desirable continuum between the academia and professional settings.

In line with social-constructivist and social-constructionist studies, research into professional discourse (Bawarshi & Reiff, 2010; Beaufort, 2000; Berkenkotter, 2001; Berkenkotter & Huckin, 1995) has explored how acculturation into the discursal practices of the discipline is achieved in the workplace. This knowledge acquisition process, this “learning the trade” (Beaufort, 2000) becomes an example of situated cognition, through which novices become socialized into professional practices, a process of “social apprenticeship”, as this author would call it. In their’ journey’ from novice to expert member of the profession, learners need to develop the competencies which will allow them to successfully participate in the group (Hyland, 2000; Kain & Wardle, 2005; Trosborg, 2000), for which they need to acquire not only the actual skills of the trade, but also the discursal and generic literacies of the discipline. The acquisition of professional communication expertise is thus parallel to the development of a professional identity (Dressen-Hammouda, 2008; Schryer & Spoel, 2005).

The analysis of construction engineering discourse

As instantiated by construction engineering textbooks, the complexity of discursal, generic and professional practices involved in professional texts, make them multidimensional, eclectic constructs (Candlin & Hyland, 1999). The analysis of professional writing should therefore take a multi-perspective approach, an analysis integrating different theoretic approaches and methodologies. Departing from genre theory and its connections to the concept of disciplinary communities and based on the main theoretical postulates of semantics theory and ontology engineering, the analysis of textual form and the meanings it conveys as well as its connection to the contextual implications of those meanings is linked in this work to the studies of lexis in discourse dealing with lexicogrammatical and phraseological patterns, and lexical cohesion, to finally review the rhetorical features of discourse, focusing on the evaluative role of lexis and the creation of disciplinary value.
On these grounds, this volume takes a bottom-up approach in order to move from the analysis of text as a final written product with specific lexico-grammatical, semantic and rhetorical features to regarding the written product as linked to the social context of production and interpretation of the text. This approach involves paying attention to the way the process of writing about buildings is affected by the community-specific, institutional and socio-historical circumstances in which the texts are produced. Following Askehave and Swales (2001), Bhatia (2004, 2008), Devitt (1991), Dressen-Hammouda (2008) or J. Flowerdew (2002), among others, in order to understand the discursive practices of the engineering construction profession, the analysis of textbooks seeks to interpret the text in context, thus moving from the analysis of the individual writer’s practices to the analysis of the writing practices of the community.

Drawing on Bhatia’s concept of ‘generic integrity’ (2004, 2008)–regarded not as a static concept but as a dynamic one as it is constructed by the professional community following certain rules of interaction, and understanding that the analysis of professional genres and professional practices are co-constructed in the reality of professional contexts, the analysis of text should respond to Bhatia’s (2004, p. 21) proposal for the integration of both text-internal–those directly related to the construction and interpretation of the text and text-external features as constituents of the ‘generic integrity’ of the textbook genre. Text-external features would be those related to the dynamics of the communicative interactions within the professional community. Both types of features can help delimit the professional identity and the shared values underpinning the professional community.

The analysis should then cover ‘text-internal’ features of the textbook genre (that is, the recurring lexico-grammatical elements and the discourse organization and development of the texts by means of rhetorical strategies) and its relationship with ‘text-external’ features (that is, the construction of discourse roles, discourse privileges of the textbook writers and the way these writers reflect the ideology of the profession) hence moving the focus beyond the text to “what makes a text possible” (Bhatia, 2002a, p. 21). Accordingly, text-internal features such as lexico-grammatical, semantic and rhetorical resources, as well as textual developments (in terms of coherence and cohesion) have to be interpreted and justified by the contextual elements of the text (i.e., audiences and settings) in the light of the influence of such text-external factors as the professionals’ discursive procedures, discursive practices and disciplinary culture. In this line the aim of this volume is to explore how the members
Discourse Practices in Domain-specific Professions

of the construction engineering community both construct and interpret textbooks. Considering that the concept ‘building’ is a key concept for the construction engineering community, the specific aim is to understand what ‘building’ means for this particular community. In other words, by looking at the texts themselves to reach an understanding of the beliefs, values and ideologies underlying the community and, more specifically, how these beliefs, values and ideologies are reflected in the text-internal features of the texts.

The analysis of disciplinary discourse, carried in the following three chapters, is arranged according to Bhatia’s (2004) model. Chapter 2 views discourse as genre, exploring the textbook genre and the influence of its communicative purposes and generic conventions on professional discourse; Chapter 3 focuses on discourse as text, on the semantic, lexico-grammatical and rhetorical features of professional discourse; and Chapter 4 analyzes discourse as socio-professional practice, extending the view to incorporate the link of text with the socio-professional context in which it is created and exploited.

With this aim in mind, the goal of Chapter 2 is to explore the role of a professional genre, the specialized textbook, in the creation and transmission of disciplinary knowledge. Using two self-compiled corpora, a first corpus of construction engineering textbooks, the Construction Textbooks Corpus (CTC), complemented with a second corpus of online textbooks blurbs, the Construction Textbook Blurbs Corpus (CTBC), the aim is to explore the complexity of the construction engineering textbook as an interplay of individuals, communities and institutions in order to provide discipline-informed evidence of the hybrid character of the textbook genre, by determining who, for whom and for what purposes it is written. Drawing upon the main theoretical framework of genre theory (Bhatia, 1993, 2004; Swales, 1990) and genre studies of both textbooks (Hyland, 1999, 2000; 2002, 2005a; Kuhn, 1963; Love, 1991, 1993; T. Moore, 2002; Myers, 1992, 1997; Parkinson & Adendorff, 2004; Young & Nguyen, 2002), and blurbs (Basturkman, 1999; Bhatia, 1997; Gea-Valor 2005, 2006; Gea-Valor & Íñigo-Ros, 2009; Gesuato, 2007; Kathpalia, 1997), the connection of the blur genre with the textbook, with its target readership and with the author’s motivation for writing the textbook seeks to set suitable grounds for the corpus-based analysis of the lexical profile of the professional discourse.

Understanding the importance of vocabulary choice as a sociolinguistic competence (Carter & McCarthy, 1988, p. 212) and acknowledging the difficulty posed by specialized vocabulary in the techno-scientific discourse, “increasingly antidemocratic” for Halliday (1993a, p. 21), and
thus as a way to set apart insiders to the construction engineering community. Chapter 3 tries to answer Carter and McCarthy’s questions (1988, p. 212) about the lexical choices available for the members of the construction engineering discourse community when talking about buildings. But, as Halliday (1993a) rightly posits it, it is not just vocabulary that characterizes specialized discourse; it is the lexico-grammar. Hunston’s (2002) pattern grammar approach provides a very helpful framework to understand the link between lexis, grammar and meaning and to describe building as a particular lexical item in connection to the specific semantic, grammatical or clausal features of the discourse of construction engineering. With a lexical approach, the chapter argues that these sequences of lexico-grammatical patterns are subject to disciplinary and generic constraints.

To fully comprehend the concept ‘building’ is challenging. To reach a comprehensive view of this concept, it is necessary to understand the large number of hyponyms and meronyms that contribute to build the ontology of the concept ‘building’ by designating, with a higher or lower degree of specificity, the types and parts of the building. Applying the theoretical background of semantics theory, particularly the work of Lyons (1968, 1977, 1995) and Cruse (1986, 2000, 2002, 2003), the aim of Chapter 3 is to investigate how the semantic relations of hyponymy and meronymy are specific to the discourse community of architecture and construction engineering. The underlying assumption of the analysis of semantic relations is that members of this community have “encyclopedic knowledge” (Jackson & Amvela, 2000, p. 103) about the lexical relations of hyponymy and meronymy, which are marked for style or field and therefore collocationally restricted. Relying on textual analysis, the analysis of the lexico-semantic patterns of hyponymy and meronymy relations of building within the field of architecture and construction engineering seeks to determine the link of these semantic relations to the ethos of the discipline, and the influence of text-external factors. Following the line of corpus semantics theory (Stubbs, 2001), the chapter argues that meaning is acquired through its use in context, so that in addition to defining the lexico-grammatical profile of building, the focus needs to be widened to conduct a co-textual analysis of the concept ‘building’ to unveil the implications beyond the limits of the word, to the boundaries of the sentence and, furthermore, to the whole text (cf. Halliday & Hasan, 1976; Hoey, 1983).

The text-internal analysis of the lexico-grammatical patterns of the noun building is interpreted in Chapter 4 in relation to the analysis of the text-external influences which condition the lexical choices of construction