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A role for genre-based pedagogy in academic writing instruction?: an EAP perspective

Abstract:

In this paper I discuss the use of genre as a theoretical construct in academic writing instruction in the context of English for Academic Purposes (EAP) courses. I begin by considering the notion of discourse competence as a concept that accounts for the knowledge elements and skills employed by expert academic writers, and then consider genre as a way of operationalizing the different elements of discourse competence knowledge for the purpose of writing instruction. I review briefly the diversity of approaches to theorizing genre knowledge, and then present the dual social genre/cognitive genre approach that I have used as a basis for research and course design in an EAP context. I exemplify this model by summarizing the key elements of two studies of research genres in which I have used this model. I conclude with a brief theoretical discussion of the issue of construct validity in relation to using the concept of genre in research that relates to writing instruction.

Biographical note:

Ian Bruce is a senior lecturer in Applied Linguistics at the University of Waikato, Hamilton, New Zealand. His research involves the use genre theory to investigate academic and research writing in order to inform university writing instruction. His most recent book is *Theory and concepts of English for Academic Purposes* (Palgrave Macmillan).

Introduction

The context of writing instruction within which this discussion is located is the field of *English for Academic Purposes* (EAP). A definition offered in the editorial of the inaugural issue of the *Journal of English for Academic Purposes* states that EAP:

> refers to language research and instruction that focuses on the specific communicative needs and practices of particular groups in academic contexts. It means grounding instruction in an understanding of the cognitive, social and linguistic demands of specific academic disciplines (Hyland & Hamp-Lyons 2002: 2).

EAP courses in the New Zealand context are variously located within different departments of tertiary educational institutions, usually occupying a very small curricular space. Within a brief time frame, teachers are expected (often unrealistically) to facilitate major improvements in the English skills of students for whom English is an additional language in order to serve the needs of the academy (and, hopefully, also the needs of the students). Academic writing tends to be a central focus of much EAP instruction as this is an area of communicative competence that can be problematic for many students taking higher educational courses through the medium of English as an additional language. Because writing instruction tends to be the core activity of EAP courses, a considerable amount of the accumulating body of EAP research has investigated various aspects of academic writing practices and academic genres.

Performing the complex task of writing extended academic English prose requires the ability to integrate a range of knowledge types. This integrative ability is sometimes referred to as *discourse competence*, which is a central element of several existing models of *communicative competence*[1] proposed by applied linguists. In relation to academic writing instruction, operationalizing the different elements of discourse competence and promoting its development are the central aims of genre-based pedagogies. However, the variety of competing theories of genre and their different approaches to conceptualizing genre are the cause of confusion for curriculum developers, course designers and teachers attempting to employ genre as a basis for writing instruction. In addressing these issues relating to genre theory with special reference to the EAP context, I review existing proposals for the concept of discourse competence and consider the different types of knowledge that writers employ when exercising this competence; review briefly the diversity of approaches to text classification in terms of genre or genre-like categories; describe the dual approach to genre which I have proposed as way of operationalizing a range of elements of genre knowledge (Bruce 2008a); discuss the findings from two studies of research genres in which I have used this model, focusing on the types of knowledge that are salient to the writing of these particular genres; and, conclude with a discussion of the issue of genre theory and construct validity in the context of academic writing instruction.

What is discourse competence?

When learners perform tasks that require the processing or representation of complex, structured information, such as when reading a text or performing a writing task, they

need to use different types of knowledge in an integrated way. This integration of knowledge in the reading and writing of extended texts is referred to by applied linguists as *discourse competence*. In an early definition, Canale defines discourse competence as: 'mastery of how to combine and interpret meanings and forms to achieve unified text in different modes by using (a) cohesion devices to relate forms and (b) coherence rules to organize meanings' (1983: 339). Similar definitions of discourse competence or textual competence have been proposed by Bachman (1990), Celce-Murcia, Dornyei and Thurrell (1995), the Council of Europe's *Common European Framework of Reference for Languages* (2001), Bhatia (2004) and Usó-Juan and Martínez-Flor (2006). Drawing upon these models, I propose that the exercise of discourse competence in academic writing involves knowledge elements from several areas, including: the larger social context, including the wider academic world and the specific discipline within which the text is being created; content knowledge that is being represented within a text; socially recognized functions and patterns of organisation of whole texts; meta-cognitive knowledge employed in the internal structuring of stretches of text that relate to a general rhetorical purpose; and, systems of the language including orthography (spelling), vocabulary, syntax and grammar which support all of the above.

The need to retain the latter linguistic elements as functioning features of a larger discoursal system, and to avoid atomistic approaches to language teaching, has been the rationale for various genre-based approaches to language course design and teaching (see Paltridge 2001, 2002). As Paltridge observes:

> [a] genre-based approach to language program development aims to incorporate discourse and contextual aspects of language use that are often underattended to in programs based only on the lower-level organizational units of language, such as structures, functions, or vocabulary (2001: 6).

The problematic issue, however, and one that gives rise to much confusion with genre-based approaches to courses and materials, is identifying the discourse entity that should provide the basic unit of a genre-based, analytic syllabus, such as one designed for an academic writing course.

Whole texts	Parts of texts
genre (Hasan 1989; Swales 1990; Bhatia, 1993; Fowler 1982)	genre (Swales 1990, 1998, 2004)
	elemental genre (Feez 2002)
text genre (Pilegaard & Frandsen 1996; Werlich 1976)	text type (Biber 1989; Pilegaard & Frandsen, 1996; Werlich 1976)
macro-genres (Martin 1994, 1995, 1997)	rhetorical functions (Lackstrom, Selinker & Trimble 1973; Jordan 1997)
	rhetorical modes (Silva 1990)
	macro-functions (Council of Europe 2001)
	macro-genres (Grabe 2002)
	séquences (Adam 1985, 1992)
	discourse patterns (Hoey 1979, 1983, 1994, 2002)
	macrostructures (Van Dijk 1980)

Table 1: Diversity of approaches to classifying texts

Table 1, above, provides a sense of the range of terminology and variety of approaches that are used to classify texts. The lists are merely separated into terms used to classify whole texts (that fulfil a socially-recognized, conventionalized purpose) and those to classify parts of texts.

Any review of research related to classifying texts in terms of such categories as *genre* or *text-type* needs to address the fact that terminology is used in very different ways by different researchers. This is not simply a terminological problem of naming or designation. It is a problem that arises out of fundamental disagreement about the very nature of the object of enquiry, what it is that is being investigated or classified. For some, genre is largely a social phenomenon, identifiable either in terms of the social actions that surround the creation of texts (Miller 1984) or the conventionally recognized purposes and structuring of texts (Swales 1990, 2004). For others, the term genre is used to describe a more general, rhetorical category, such as argument, explanation, recount, description (Derewianka 1990; Knapp &Watkins 1994, 2005; Macken-Horarik 2002).

Because a genre category aims to describe and classify a unit of language that is an operational whole, it is important to consider the nature of the related underlying constructs, those of *text* and *discourse*. In distinguishing text and discourse, Widdowson writes that '[text is] the overt linguistic trace of a discourse process. As such, it is available for analysis. But interpretation is a matter of deriving a discourse from the text, and this inevitably brings context and pretext into play' (2004: 169). Text, therefore, is the written record on the page (such as a written document or the written transcription of a dialogue), while discourse includes the written record as well as the social and cognitive operations that surround it, in both its creation and interpretation. In attempting a comprehensive operationalization of genre knowledge that accounts for elements of both text and discourse, I have previously proposed a dual model of social genre and cognitive genre:

> Social genre – refers to socially recognized constructs according to which whole texts are classified in terms of their overall social purpose … Purpose here is taken to mean the intention to communicate consciously a body of knowledge related to a certain context to a certain target audience.

> Cognitive genre – refers to the overall cognitive orientation and internal organization of a segment of writing that realizes a single, more general rhetorical purpose [such as] to recount a sequence of events, to explain a process, to present an argument (Bruce 2008b: 39).

Social genres and cognitive genres are not mutually exclusive categories, but, in effect, two sides of the same coin, or two complementary approaches to examining a particular text and its discoursal interpretations. The social genre/cognitive genre model that I propose involves detailed frameworks for performing genre analysis (see Table 2 following).

What follows is a brief summary of each of the social genre and cognitive genre elements.

Social genre elements
context (Widdowson 2004)
epistemology (Lea & Street 1998)
stance (Hyland 2005)
content schemata (Hasan 1989; Swales 1990)
cognitive genre elements
gestalt patterns of ideas (Johnson 1987)
general textual patterns (Hoey 1983)
relations between propositions (Crombie 1985)

Table 2. The social genre/cognitive genre model: knowledge elements

The first element of social genre knowledge is that of context. Widdowson characterises context in terms of schematic knowledge that involves both 'intralinguistic and extralinguistic factors' (2004: 54). I suggest that, in relation to academic or professional genres, extralinguistic factors involve the specialist, technical knowledge of the field to which the text belongs, and intralinguistic factors include the socially-driven forms of communication used in the particular field. The second element of the social genre part of the model is epistemology – how experts working in a particular field perceive and use knowledge. However, to understand how subject experts view knowledge, a necessary co-condition is to understand how they create and validate (or prove) knowledge. In any discipline or profession, the knowledge-creating paradigms used (reflected in its research methods) strongly influence its knowledge-communicating forms, such as its written and spoken genres. The third element of social genre knowledge is that of the stance or standpoint of a writer in relation to his/her audience. The Russian formalist, Bakhtin, proposes that writing, like speaking, is *dialogic* – a dialogue between the writer and the reader and, as a consequence, writing is constructed with the expectations and knowledge of the reader in mind. In developing Bakhtin's idea of diologism, Hyland (2005) identifies a set of language devices that are used to connect the writer with the reader, language devices which he groups together under the term of *metadiscourse*, which are used in the model to analyze the textual trace of writer stance. The fourth element of social genre knowledge relates to regularly-occurring, conventionalized patterns used in the organisation of content within a genre. In most theories of genre, such patterns have been regarded as a central, defining element. For example, the approach to genre influenced by Systemic Functional Linguistics describes content patterns as *schematic structures* (Eggins 1994), and the English for Specific Purposes approach describes them as *moves and steps* (Swales 1990).

A cognitive genre is a segment of writing that aims to achieve one particular, general rhetorical purpose, such as argue, explain or recount. Such segments of writing are sometimes called *text types* and described in terms of linguistic features (see, for example, Biber 1989). However, in the model, they are conceptualized in terms of a top-down, cognitive structure drawing on two principles from categorization theory: first, that categories are formed in response to intention or purpose (Murphy & Medin 1985); and second, that knowledge within a complex category is hierarchically organised – higher level general to lower level specific structures (see Miller 1984;

Rumelhart & Ortony 1977). In relation to this second principle, cognitive genres have a top-down, internal organizational structure that involves: gestalts called *image schemata* (Johnson 1987) that reflect the higher-level organisation of ideas; *discourse patterns* (Hoey 1983, 1991, 1994, 2001) that relate to the organization of smaller sections of the actual written text; and, *interpropositional relations* (Crombie 1985) that account for lower-level, more specific textual relations. To summarize, cognitive genres are organizational building blocks that are used in socially driven ways to create extended texts from which discourses are derived. The social genre/cognitive genre model is proposed here as comprehensive approach to accounting for the different types of constituent knowledge that may relate to genre and text types.

To investigate the knowledge areas of the social genre/cognitive genre model, the methods that I have employed have included: ethnographic interviews (2009); rater analysis of texts (2008b, 2009, 2010, 2011b); and, computer-mediated corpus analysis (2008b, 2009). The methods vary according to their salience to the research question, the type of genre under investigation and the size of the sample, and whether or not I am examining the genre product (the text) or the social and cognitive operations that give rise to the product – that is, the discourse that surrounds the text.

Two studies of academic genres using the social genre/cognitive genre model

To illustrate of the use of this model, I present here summaries of two studies that use part or the whole of the social genre/cognitive genre model to operationalize the exercise of discourse competence in two academic sub-genres. Specifically, the studies examine Methods sections (Bruce 2008b) and Results sections (Bruce 2009) in research-reporting articles published in academic journals. Becoming proficient in research writing is a central aim of postgraduate students engaged in research, including those for whom English is an additional language. These studies both aim to inform the teaching of research writing in higher-level EAP courses, such as pre-masters programmes or in-sessional courses for graduate students engaged in research projects. In the discussion of the findings of these studies, I wish to emphasize both the integrative complexity and disciplinary specificity of the exercise of discourse competence in these two common academic genres. These points will then be taken up in the concluding discussion about genre frameworks and construct validity.

Study 1. Cognitive genre structures in Methods sections of research articles: a corpus study (Bruce 2008b)

Study 1 examined the writing of Methods sections in research articles in order to inform EAP courses that focus on the teaching of research writing. In the EAP/ESP literature, metaphors used to describe methods sections in reports of research in the social sciences as 'slow' or 'extended' and physical sciences were 'fast' or 'condensed' (Swales & Feak 2000, 2004). In this study using two inter-disciplinary samples of texts (a social sciences sample and a physical sciences sample), I wanted to go beyond these metaphors to find out more about the generic resources and, specifically, the textual resources employed in the writing of methods sections in

these two strands of research writing. Therefore, the object of this study is textual knowledge in the two samples of texts analysed in terms of the cognitive genre model (Bruce 2008a: 94–9).

The texts examined in this study were from two contrastive samples, each consisting of 30 methods sections texts. One sample consisted of methods sections from academic journals in the social sciences (applied linguistics, education, psychology) and the other sample included methods sections from the physical sciences and medicine (biology, chemistry, chemical engineering, paediatrics). One academic from each field was asked to name the journals to which they most frequently refer, and from those journals, methods sections were gathered non-purposively. Each text was rater-analysed in relation to the elements of the cognitive genre model, that is, in terms of ideas organization, textual organization and coherence relations between propositions. Then each sample as a whole was subjected to a computer-mediated corpus analysis in order to provide objective linguistic data to compare with the rater findings. The social science sample constituted a micro-corpus of 29,148 words and the physical sciences corpus was 28,612 words. For each corpus, a wordlist was created and concordance searches were made of frequently occurring cohesive devices using Oxford Wordsmith Tools 4.0 (Scott 2004).

In terms of their textual organization, I found that methods sections in the physical sciences were characterized by the recursive use of a compact, means-focused, textual structure, operationalized by the cognitive genre that I term *Explanation* (Bruce, 2008a: 97)[2]. In terms of cohesion and coherence, the rater analysis of relations between propositions in physical sciences texts found that the relations that Crombie (1985) terms *Means-Result* and *Means-Purpose* together accounted for 40 percent of the total number of relations identified in the sample (see Appendix A for definitions of these relations). However, in the social sciences, Methods sections appear to employ chronology-focused structures elaborated by information-reporting structures (operationalized by *Recount* and *Report* cognitive genres, Bruce, 2008a: 97). The rater analysis of the interpropositional relations in the social sciences texts found that *Amplification* was the most frequently occurring relation, comprising 24 percent of the total number of relations identified in the sample, followed by *Chronological Sequence* with 12 percent (again see Appendix A). Here, I will not attempt to unpack the detailed findings of this rather technical analysis of the two samples, rather the pedagogical insights that could be derived from the study and incorporated into writing instruction are summarized in Table 3 following.

	Fast Methods Sections (Physical Sciences)	Slow Methods sections (Social Sciences)
Ideas organization	Chronological – chronology implied by the causal links between the interdependent steps in the process	Overall ideas organization is chronological (signalled by adverbs or other time expressions). Chronological organization may include or be adjacent to non-chronological text segments (which are organized hierarchically - large to small) when they include quantitative data.

Textual organization	Textual organization –a recurring *Preview-Details* pattern, each consisting of a heading that previews a sub-section followed by the details of a particular stage of the research process.	Textual organization– a recursive *General-Particular* pattern. The General section is a concise but comprehensive summary or overview of the research methodology. The Particular section describes the process and can include elaborate descriptive asides, such as a description of the sample.
Coherence and cohesion	Use of nouns and verbs to signal causal relations in the text, such as *means* (how), *purpose* (to achieve what), *reason* (why) and to a lesser extent *condition* (if) (see Appendix A)	Strong emphasis on descriptive elaboration using subordinate clauses, such as types of relative clause and noun clauses (as the object of the sentence) (see Appendix A for an explanation of the Amplification relation).

Table 3. General rhetorical and textual features of fast and slow methods sections
Paraphrased from Table 12, Bruce 2008b: 48

The cognitive genre analysis of these two samples goes some way to uncovering the different types of textual knowledge used by published writers of this part-genre, knowledge that can inform pedagogy, and that goes beyond the metaphors of fast and slow or condensed and extended previously used to describe methods writing. In relation to pedagogy, it seems that developing competence in recognizing and using the cognitive genre resources identified is central to enabling student writers to analyse existing methods texts (in their respective disciplines) and create their own new examples of this part-genre.

Study 2. Results sections in sociology and organic chemistry articles: a genre analysis (Bruce 2009)

The overall aim of Study 2, like that of Study 1, is to inform EAP courses that offer instruction in research writing, and specifically the reporting of the findings or results of research. While Study 1 had a more interdisciplinary focus (in terms of the range of subjects included in the two samples), Study 2 was more discipline-specific in that it examined the reporting of research results in two specific academic subjects (sociology and organic chemistry). Also, in contrast to the textual focus of Study 1, Study 2 takes a broader approach and examines elements of both the discourse that surrounds reporting results in these two fields as well as the actual research-reporting texts. This wider view was achieved by gathering and analyzing data in relation to all of the knowledge elements of social genre/cognitive genre model (see Table 2). The data-gathering methods included a semi-structured interview with a sociologist and a chemist as well as the both rater and corpus analysis of Results sections texts from research-reporting articles – 20 from sociology and 20 from chemistry. The articles for each sample of texts were selected from the three academic journals to which the two interviewees most frequently refer in their respective field. What follows are summaries of the findings relating to reporting the Results of research in the two disciplines.

Social genre elements of the Results writing

In relation to contextual information, clear differences emerged between the two disciplines. The sociologist interviewed describes her subject as the study of 'inter-human behaviour, in terms of interrelationships and interactions'. On the other hand, the organic chemist said that his subject is concerned with examining 'carbon-containing compounds, most of which are involved with life processes'. As a result the disciplinary epistemology and research methods differ between the two disciplines. The sociologist reported that her research follows a naturalistic or interpretative approach, while the organic chemist follows the positivist or scientific approach.

In relation to writer stance when reporting findings, the sociologist informant proposed that the reporting of research findings in her field has to acknowledge multiple views of reality, and has to anticipate and pre-empt multiple critiques or interpretations of their findings by readers. The style of sociology writing may range from personal to impersonal. On the other hand, in the reporting of findings from organic chemistry research, the informant suggested that key values are the need for preciseness of detail as well as conciseness. As part of this precision of specification, the writer often provides familiar landmarks in terms of named processes and named analytical techniques. Also, in relation to writer stance, difference was evident in the use of metadiscourse in the two samples of texts with the extensive use of hedging (cautious language) in 14 of the sociology texts, while hedging was largely absent from the chemistry texts.

The fourth element of social genre knowledge relates to a schematic structure or conventionalized pattern for organizing the subject content of the genre. In examining the Results section texts from both sociology and organic chemistry, no conventionalized pattern of content organization emerged. In the sociology texts, the findings in eleven of the articles were organized around specific research questions (or sub-headings related to research questions), while in nine the findings were combined in a more unified way. In the sample of organic chemistry texts, ten were organized around research questions (or related sub-headings) and ten were more unified texts. Since no clear content schema emerged from the analysis, it was found to be more salient to consider the Results sections texts of the two samples in terms of the types of general rhetorical purpose and related textual resources (cognitive genres) that are employed. This is the focus of the next section of the analysis.

Cognitive genre elements of the Results writing

Rater analysis of the sociology Results sections in relation to the cognitive genre model found that they employed a range of textual resources, but they mostly used the cognitive genre termed Report[3], often recursively – several small, adjacent reports. In some cases the recursion is signalled by sub-headings or separate research questions used as sub-headings. In other cases, there are rhetorical shifts within the text from one cognitive genre to another. In the case of Report, it is proposed in the cognitive genre model (Bruce 2008a: 97) that one of the most frequently occurring interpropositional relations (Crombie 1985) will be *Amplification*[4]. The rater analysis of interpropositional relations (sometime termed *coherence relations*) in the sociology

texts, in fact, found that Amplification was the most frequently occurring relation, comprising 21.5 percent of the total number of relations across the sample of texts. Linguistically, the Amplification relation can be realized by a main clause followed by either an object noun clause or dependent (restrictive) relative clause, both types of clause often being headed by the conjunction 'that' (examples are provided in note 4). In the corpus analysis of the sample of 20 sociology texts, the wordlist showed high frequencies of 'that' (301 occurrences). Creating a concordance of the 301 occurrences of 'that' and searching their contexts found that 189 introduced noun clauses (as objects or complements of verbs), 73 introduced relative clauses and 39 occurrences belong to other word classes, indicating the importance of control of these structures by those reporting Results.

The rater analysis of the organic chemistry Results sections showed that these texts mainly used the *Explanation* cognitive genre, again often recursively, such as several short explanations. The *Discussion* cognitive genre[5] also occurred in eight of the texts. The cognitive genre model (Bruce 2008a: 97) proposes that in *Explanation*, the most frequently occurring interpropositional relations (Crombie 1985) will be *Means Result* and *Means Purpose* – these are relations that focus on how or for what purpose something is achieved. The rater analysis of interpropositional relations in the organic chemistry texts found that, together, the relations Means Result and Means Purpose accounted for 25.5 percent of the relations in the total sample (17.7 and 7.8 percent respectively). To further investigate the rater analysis of the interpropositional relations, the sample of 20 organic chemistry Results sections was also searched using corpus software – Oxford Wordsmith Tools 4.0 (Scott 2004). The wordlist showed a high frequency of 'by'. Creating a concordance of the 192 occurrences of 'by' and searching their contexts found that 107 (in 19 texts) were part of structures that signalled means (in a Means Result relation). Similarly, a concordance was generated for the 508 instances of 'to' of which 51 occurrences (in 15 texts) signalled purpose in a Means Purpose relation (see note 4 for examples of these interpropositional relations).

In relation to this genre, analysis of both the discourse and the text, reveals highly salient organizational and linguistic features that need to be understood and appropriated by novice writers of the genre. The linguistic features can mostly be taught in terms of the type of conventional language description in most pedagogic grammars although the particularly salient category of 'means' markers usually falls outside of traditionally taught syntactical categories.

Discussion

What these two studies reveal is that published writers in different disciplines, ostensibly writing texts that belong to the same genres (Methods and Results sections), use a complex range of textual elements that differ according the discoursal influences of the context, epistemology and object of research of the discipline. As a result, the textual realization of Methods and Results sections reflect the requirements of the respective subject discipline. The studies also suggest that this exercise of discourse competence in the writing of these research genres involves the writers employing

multiple, integrated layers of knowledge, and that by means of a close examination of these knowledge layers, it is possible to uncover key elements of disciplinary difference in the writing of these two genres.

In considering the implications of these findings, I contend that an EAP writing instructor, such as an instructor of research writing courses, must have the ability to analyse, uncover and teach these different elements of genre knowledge to novice writers in order to facilitate their development of the discourse competence knowledge necessary to appropriate and individuate the written genres necessary for communication within their disciplines. Writing instructors, therefore, need to be discourse analysts so that they can encourage their students to develop and use the same types of knowledge in practical ways relevant to their own specific contexts to achieve their own, specific authorial purposes. However, to achieve this requires access to what Swales describes as a 'working and workable definition of genre' (2009: 5) that enables them to identify the salient types of genre knowledge for the purpose of instruction. In the social genre/cognitive genre model, I have suggested that genre knowledge has the dimensions of:

- socially constructed knowledge – relating to context, subject epistemology, subject-specific lexis, addressivity and audience and, sometimes, conventionalized patterns for content structuring;

- general rhetorical (procedural) knowledge that involves the structuring of smaller sections of text to achieve a single general rhetorical purposes; and,

- linguistic knowledge – principally related to the achievement of cohesion and coherence within extended written texts.

However, it seems that agreement on an adequate, comprehensive operationalization of genre as a classificatory concept is still lacking in the field of genre studies. Genre, in effect, is a theoretical tool used to classify and analyse existing written texts or spoken language events. The synthesis of knowledge elements that gives rise to these texts or language events forms the underlying construct. In research, the *construct validity* of a classificatory/analytical tool, such as genre, relates to its effectiveness in being able to identify and mirror (or operationalize) all of the characteristics of the underlying construct that it claims to represent. Also, Cohen, Manion and Morrison state that 'in this sort of validity, agreement is sought on the operationalized forms of the construct … Is the researcher's understanding similar to *what is generally accepted to be the construct*?' [emphasis added] (2007: 138). Thus, construct validity would also seem to require agreement by those working in a particular research field about the characteristics of the operationalized form of any construct. However, as the diversity of approaches to genre or genre-like concepts in Table 1 demonstrates, genre theorists are some way from achieving this type of agreement.

For example, in the field of writing studies, the North American approach to genre of Rhetorical genre studies (Artemeva 2008; Bawarshi & Reiff 2010; Tardy 2009) has problematized the issue of the contextual elements of genre by exploring disciplinary contexts often using the tool of critical ethnographic enquiry, but theorists in this tradition tend to argue strongly against doing textual analysis. On the other hand, genre theorists influenced by Systemic functional linguistics, sometimes referred to as

the 'Sydney School' (Hasan 1989), have problematized text in terms of a series of highly grammaticalized linguistic categories, sometimes related to the variables of the field, tenor, mode paradigm used to analyse context. While both the contextual and textual approaches account for important dimensions of genre knowledge, neither provides a comprehensive approach to operationalizing discourse competence in relation to the writing of academic genres, and, crucially, both ignore the important mediating domain of metacognitive, procedural knowledge, operationalized here in terms of the elements of the cognitive genre model.

In the outcomes-focused field of EAP where classes of student writers need to develop discourse competence in relation to ostensibly highly conventionalized, yet textually-complex academic genres, whatever genre construct that is employed in writing instruction needs to be fit for purpose. Genre-based courses need to be able to account for the socially-constructed influences that constrain novice writers as peripheral members of academic discourse communities. However, such courses also need to focus on the complexity of more abstract procedural knowledge that, in turn, governs the choice of the textual elements central to creating coherent and accurate academic texts. Teacher competence and expertise in relation to understanding and teaching all of these elements of genre knowledge are crucial if writing instruction is to address adequately the needs of novice academic writers.

Endnotes

1. Communicative competence models aim to conceptualize the overall ability of a language user in terms of a range of knowledge elements and skills.

2. *Explanation* – 'presentation of information with a focus on [the] means by which something is achieved; *Recount* – 'Presentation of data that is essentially chronological' ; *Report* – 'presentation of information that is essentially non-sequential' (Bruce 2008a: 97).

3. See note 2 above.

4. Four of Crombie's Interpropositional relations, based on Crombie (1988: 18-28).

Relation	Definition	Example
Amplification	Involves implicit or explicit repetition of the propositional content of one member of the relation in the other, together with a non-contrastive addition to that propositional content.	The subjects knew <u>that the researcher would ask them questions</u>. (object noun clause) The students provided the answer <u>that the researcher expected</u>. (relative clause)
Means-Purpose	Involves an action that is/was/will be undertaken with the intention of achieving a particular result.	The researchers used pseudonyms for their subjects *so that* they could not be identified in the reporting of the research
Means-Result	Involves a statement of how a particular result is/was/will be achieved	*By* obtaining lists of students enrolled in the first semester of 2012, they were able to identify their population of interest.
Chronological Sequence	Provides the semantic link between event propositions one of which follows the other in time.	*After* obtaining the informed consent of the subjects, the questionnaires were distributed.

5. *Discussion* – 'focus on the organization of data in relation to possible outcomes, conclusions or choices' (Bruce 2008: 97).

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