Families of genres of assessed writing

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2 *Families of genres of assessed writing*

> Genres are abstract, socially recognised ways of using language.
>
> (Hyland, 2002a: 114)

Hyland's definition of genres as 'abstract, socially recognised ways of using language' is general enough to be widely acceptable, but as such it masks significant differences in how genres are more specifically defined and operationalised in research and teaching contexts. This chapter explains what we mean by academic genres, and how we classify genres of assessed student writing into groups of similar genres, called genre families.

We begin with a fabricated scenario which raises some of the methodological issues involved in investigating student writing. This is followed by an overview of distinctions and concepts needed to conduct such a study (assignments, texts, genres, academic writing, genre family, social purpose, staging and register).

Our thirteen genre families with their purposes and stages are presented in Section 2.2. They are grouped according to five broad social functions of student writing, each of which is explored in more detail in a subsequent chapter (Chapters 3 to 7).

Differences in register are highlighted in Section 2.3 through the typical clusters of lexical and grammatical features identified by the multidimensional analysis for each of the thirteen genre families. For example, the language of Proposal genres is more persuasive than the language of Literature Survey genres, but both have highly informational registers when compared to argumentative Essay genres.

Section 2.4 maps out the distribution of the genre families across the four university levels (first year to taught Masters) and across four disciplinary groups of study. This provides a broad picture of assignment genres across the academy.

2.1 Investigating student writing: A scenario

If you ask a student in Sociology, or in Engineering, what is involved in writing assignments in their discipline, they will soon start to explain that there are different types of writing – essays, research proposals, reports, projects and more – and that each of these has a different function; each relates differently to research or practical work being done and to reading and lectures in the discipline; and so each is organised differently. You will also begin to realise that when a Sociology student talks about a 'report' or a 'project' or a 'case study', they may well be describing a rather different type of assignment than that referred to by an Engineering student who uses the same labels. This line of investigation (interviews) will only get you so far in understanding the nature of academic writing, however, and eventually you will ask to see some examples of each type of assignment, and ask the students to explain to you how the text fulfils the purpose of the assignment, what they think is going on in different parts of the text, and how this meets disciplinary expectations. This will lead to some kind of rationale or discussion about the point of the initial stages such as abstracts, executive summaries or introductions; of medial stages such as literature reviews or methods or costings; and of final stages such as conclusions or recommendations. In turn, this allows you to compare more easily across disciplines, and you can begin to develop your own classification, identifying assignments that have similar stages and giving them your own labels. You will also begin to understand how these assignments fit into the degree programme – how a Sociology research proposal is part of a sequence of assignments leading to a dissertation, or how an Engineering assignment may be designed to replicate a professional engineering activity and thus to prepare students for working as an engineer. To obtain a more rounded view of what the students say, you would want to ask tutors, look at course documentation and find out about university and national expectations of student writing. The more you learn about different types of university writing and about the nature of knowledge and research in different disciplines, the easier this will be. As this scenario suggests, in order to reach a university-wide classification of student assignment texts it will be necessary to consult a range of sources, to interpret these in their disciplinary and university-wide contexts, and to develop categories that are essentially abstractions from specific assignments in specific contexts. Before we present our genre classification, we explain key distinctions and terms used.

Tasks, assignments, texts and genres

One fruitful line of enquiry has developed classifications of academic writing by studying the tasks set in university courses (Carter, 2007; Hale et al., 1996; Melzer, 2009; Moore and Morton, 2005; Rosenfeld et al., 2004). In contrast, our investigation focuses on classifying the written assignment papers themselves.

Broadly, student assignments are written for a particular module in response to a prompt. They are read by academics who generally comment on how well the assignment has met the expectations of the course and award a grade which contributes to the student's degree progression. The format is highly conventional: front matter (such as module name), student ID number, date, word count and plagiarism declaration, followed by the body of the assignment which is typically realised by a genre such as a lab report, discussion essay or book review. Thus most assignments instantiate specific, conventionally recognised genres, partly because they are high-stakes texts – failing an assignment can mean failing a degree which can be costly in academic, social and financial terms. This assessment context not only imposes constraints on the nature of student writing, but also means that students, tutors and those involved in developing academic programmes nationally and internationally are all motivated to understand the socially recognised expectations and the relative value placed on features of the assignments.

One broad social purpose of assignment writing is therefore for accreditation. This can explain how the academic writing in student assignments is different in nature from that in textbooks or published academic journal articles, which have different social purposes.

It is also important to point out that while most assignments are realised by one text that realises a single genre, there are some assignments with what we can call a 'compound macrostructure'. Thus, work that is submitted and assessed as one assignment may be realised as one front matter plus three texts (e.g., three lab reports). This explains why there are more texts in our corpus than assignments. While it is possible to develop a classification of *assignments* with different types of simple, complex and compound macrostructure (Gardner and Holmes, 2010), in the rest of this chapter we concentrate on our classification of student coursework *genres* which are realised by texts that occur in the body of assessed student assignments.

Genres and academic writing

The concept of 'genre' is central to research on academic writing. It is employed across approaches, from academic literacies to corpus linguistics, from linguistic ethnography to critical discourse analysis (Hyland, 2002b). Research on academic writing focuses on genres such as academic journal research articles, academic textbooks, doctoral theses or undergraduate student coursework. Such broad genre categories correspond to everyday categories and are therefore socially recognised and relatively unproblematic. Nevertheless, 'genre' is a contested term, hard to define and pin down precisely, and different traditions of genre analysis have developed (see for example Hyland, 2002a; Johns, 2002).

Genres are abstractions – so they are not the written texts themselves, but conventional ways of doing things, realised through the written texts. Swales suggests that a genre is 'a class of communicative events' (1990: 45), where communicative events 'compris[e] not only the discourse itself and its participants, but also the role of that discourse and the environment of its production and reception, including its historical and cultural associations' (1990: 46). In a similar vein, though from a different school of genre analysis, Martin describes genres as a 'system of staged goal-oriented social processes through which social subjects in a given culture live their lives' (Martin, 1997: 13).

These social and cultural perspectives are important. It means that if someone writes an essay to give to his grandmother as a gift for her to keep, this will be a different communicative event / social process than if a student writes an essay to be assessed as part of a university course. It has a different type of audience, the writer is writing as a grandchild not as a student, the writing has a different social purpose, and its effect on how they live their lives will be different. (In our experience writing essays for grandparents as gifts to keep is not part of the way we live our lives, so this is not an authentic, recognisable genre, i.e., not part of our culture!) Equally if a student writes an essay on a general topic in a university admissions test, this is ultimately a different social (educational) process from the essays we are interested in, which are written in university departments to be assessed as part of a university degree course, and we would expect these differences to be evident in the language used. In a study of university entrance English proficiency examination scripts, Coffin and Hewings (2004) point to a range of contextual factors to explain a relatively high use of the language of hearsay (e.g., *some people think that*) and pronounce (e.g., *I believe that*) compared with their use in other types of academic writing. Thus, while differences in purpose,

audience, writer role and context are crucial in identifying genres, we also expect that these will shape the ways the texts unfold and be reflected in the language (lexico-grammar) used.

From genre to genre family

If we continue to narrow this contextual lens, we will find differences in assignments written in the Chemistry department and the Classics department; or written by Level 1 students and more experienced Level 3 students; we may also be able to detect differences according to the type of secondary school education, or ultimately features associated with individual students. As our aim is to identify a class of communicative events or a system of social processes from which we can generalise about assessed student writing across disciplines and levels of study, we sought to identify assignment purposes found across the academy. This involved identifying genres and grouping them into genre families. For instance, when students write a 'book review', they are expected to describe features of the book and evaluate its impact from a disciplinary perspective. This is similar to the purpose of a 'product evaluation' in Engineering where students describe features of a product and evaluate its effectiveness from a disciplinary perspective. These two genres have a similar purpose (to demonstrate / develop understanding of the object of study and the ability to evaluate and / or assess the significance of the object of study) and similar stages (identify or describe the object of study, then evaluate specific features). In our classification they are grouped with book reports, website evaluations and other members of what we call the Critique genre family. In a similar way, a catering plan and a research proposal share the purpose of developing plans for future activity, and are grouped in what we call the Proposal genre family.

The term 'family' is used about genres by Swales and about groups of genres by Martin. Swales (1990: 49ff), drawing on Wittgenstein, discusses family resemblance among members of a genre, and their variation in prototypicality. Equally, in our classification, there is variation in the prototypicality of members of a genre family. For Martin, genres may belong to different families in that they may share a central function, or they may have evolved in the same disciplinary context. For example, his 'report family' includes descriptive reports, classifying reports and compositional reports, which all have different staging but share a classifying and describing function (Martin and Rose, 2008: 142ff). In contrast, the discourses of history, having 'evolved within the institutional contexts of recording, explaining and debating the past' (Martin and Rose, 2008: 99), give rise to a

family of history genres which includes recounts, explanations and discussions.

As our aim is to compare academic writing across disciplines, we have created genre families whose members *share* central functions or social purposes and key stages. These functions and stages are not given a priori, but developed from an examination of the assignment texts in our corpus, with due attention to the wider university and disciplinary contexts. Thus the labels of our genre families are specific to this purpose of classifying university student writing across disciplines, though inspired by labels from the disciplinary discourse communities as well as from the literature on written academic genres. Because labels such as report and case study are used in different ways across disciplines, we have identified central functions and stages to define them. For instance, because many of the assignments called case studies in the disciplines include recommendations, and this recommendation stage was highlighted in interviews as crucial in the assessment of the assignment, and because being able to analyse specialist material and make recommendations is one expected social outcome of a university education, we have identified recommendations for future practice as an essential stage in our Case Study genre family. Within genre families we can explore variation according to level of study or academic discipline. Chapter 6 illustrates how, for instance, medical Case Studies and business Case Studies differ.

Social purposes of genres of assessed student writing

Student assignments have complex formative and summative purposes, where formative purposes relate to developing skills and expertise, while summative purposes relate more to achievement levels, assessment criteria and grades. Assignments not only provide opportunities for students to develop knowledge, understanding and expertise, but also expect students to display these in writing. Their purpose is not solely to explain or argue a point, for example, but also to demonstrate that they can explain or argue that point in writing, in accordance with the expectations of the discipline, of the lecturer(s) and of the academic department which set the assignment. Students undoubtedly do learn and benefit from writing assignments, but the multiple audiences and functions give university assignments a somewhat unreal or hybrid quality as polished texts whose main transactional value is to earn a grade which accumulates as educational capital towards a university degree.

In our interviews with lecturers (Nesi and Gardner, 2006) and students (Gardner and Powell, 2006), we investigated expectations of

the communicative and educational purposes of assignments, and their multiple audiences (academic and non-academic) or discourse communities. For lecturers setting assignments and guiding student performance, there seems to be tension between developing disciplinary knowledge and meeting the requirements of the wider academic and professional communities (Gardner, 2004). Just how these wider expectations are met is not always clear; the lecturers in our interviews revealed different understandings of academic expectations, particularly around issues of knowledge transfer. Some decried the pressure to deliver 'vocational' training and relevance, some aimed to make their vocational courses more academic through a research emphasis, while others argued in favour of the rigorous demands of professional assignments in terms of 'real world constraints' such as the legally binding nature of recommendations in engineering student projects, or the customer satisfaction requirement in computer systems development projects.

Despite these differences expressed by individual lecturers, as we increased our familiarity with the assignments, courses and wider social context of university writing nationally and internationally (see Section 1.1), we were able to identify three broad purposes for student assignment writing: to demonstrate disciplinary knowledge and understanding; to produce new disciplinary knowledge or research; and to prepare for professional practice following graduation (Nesi and Gardner, 2006). A comparison of the specific stages of writing in student assignments enabled us to develop this initial classification further and thus to understand more fully the social functions that university assessment serves. The five broad functions identified are (1) demonstrating knowledge and understanding; (2) developing powers of independent reasoning; (3) building research skills; (4) preparing for professional practice; and (5) writing for oneself and others.

Genres and staging

While the communicative or social purpose may be primary in identifying genres, most genre analysis also relies heavily on the identification of moves in the communicative event (Swales, 1990), or stages in the unfolding of the social process (Martin, 1992). Thus while an important purpose of writing a laboratory report is recording what happened during a particular experiment, there are conventional ways of doing this which involve first introducing the experiment, then describing the methods used, followed by presenting the results and discussing the findings. These stages – Introduction, Methods, Results, Discussion (IMRD) – represent the conventional structure of

a lab report (Dudley-Evans, 1985). In Systemic Functional Linguistic conventions, the sequence of the stages is represented by a carat sign (^) which means 'is followed by':

Introduction^Methods^Results^Discussion

Laboratory reports often have section headings which indicate the purpose of each stage, and the language in each section is also conventional and recognisable as such, as this extract from a lab report in Biochemistry suggests:

… *The aim of the experiment was to understand these concepts and methods of bacterial genetics by exchanging pieces of* E. coli *chromosome between different strains by the process of conjugation and using a non-quantitative method to establish the order of some genes relating to amino acid metabolism and sugar catabolism.*

Method
The experiment was carried out as laid out in the lab manual with the following detail.
The donor strain used was E. coli *KL14* (thi-1 *Hfr KL14).*
The bacteria donor and recipient strains were allowed to grow in the shaking water bath at 37ºC for 120 minutes before being mixed together.

Results
From the results it is clear that the bacteria could grow earlier on some plates than others. In this case the sample selective media lacking threonine (Plate 6) grew first at time 0 minutes (but also had growth on the recipient strain area), then on both plates lacking arginine (plate 1) and with xylose as the sugar (plate 7) at 15 minutes. The sample on plate 3, lacking …

(Level 1 Biochemistry)

Of all the student writing genres we describe, the lab report is one of the most predictable in terms of its staging. This makes it an excellent choice for the development of interactive teaching materials, as in the online 'Write Reports in Science and Engineering' (WRiSE) project (Drury, 2010). Within this genre there can still be considerable variation across levels and across disciplines (see Section 5.3). It is therefore important to recognise that genres are abstractions; they generalise from a set of instances. This means that while there will be prototypical instances of genres, there will also be instances of genres that are less typical. Moreover, as genres reflect the contexts in which they are produced, and the social and educational contexts are changing all the time, genres too change over time.

Similar IMRD stages are also found in Research Reports, and in Chapter 5 we explain how we differentiate research reports from lab reports according to differences in their social purpose and key stages.

In other words, if an assignment is divided into four main parts called introduction, methods, results and discussion, it will probably be a lab report, but we need to find out more about the assignment through reading it and investigating what was 'given' to the students and what they developed themselves in order to identify its social purpose and classify it as an instance of a particular genre.

Genres and disciplines

In our discussion above of variation within genres, we have indicated that genres also vary across disciplines. Thus lab reports in Physics have 'experimental details' rather than 'methods', while lab reports in Food Sciences regularly include 'calculation' as a distinct section, as can be seen in Table 2.1.

Table 2.1   Typical IMRD Lab Report headings in two disciplines

Physics	introduction, experimental details, results, discussion
Food Sciences	objective, introduction, method, results, calculation, discussion

If the general social purpose is the same, and the same key stages are evidenced, then further differences often reflect the disciplinary context. In a similar way, a book review in English may demonstrate disciplinary differences from a book review in Psychology or Sociology, even where the same book is reviewed. At a cross-disciplinary level, however, the purpose and key stages of a book review genre will be evidenced.

As our aim is to understand the nature of assessed writing across the academy, our classification proposes genre families at a level of delicacy that groups similar genres across disciplines. This enables us to compare genres across disciplines. For example, a comparison of Engineering, Sociology and History shows the diversity of writing purposes in Engineering compared with History where students develop argumentative essay writing skills in more depth.

If we then look at how populated each genre family is, we find that most assignments in History and in Sociology are members of the Essay genre family, whereas assignments in Engineering are distributed across all thirteen genre families.

As the title of Table 2.2 suggests, this is not an exhaustive list, but a list designed to show the relationship between genres and genre families. It may be, for instance, that case studies are frequent in some modules in History and Sociology but for some reason these did not find their way into our corpus. Studies such as Gillett and Hammond

Table 2.2   Main genre families and genres found in undergraduate (Levels 1–3) History, Sociology and Engineering assignments

Genre families	Genres in History	Genres in Sociology	Genres in Engineering
Case Study			company report accident report
Critique	book review	evaluation of research methods book review	evaluations of products, techniques, performance, systems, tools and buildings
Design Specification			design plan
Essay	exposition discussion challenge factorial	exposition discussion	exposition discussion
Exercise			calculations short answer
Explanation			industry overview system overview
Methodology Recount			lab report design report
Narrative Recount		urban ethnography library search	reflection on team work
Proposal		research proposal	design proposal
Research Report	long essay	dissertation	project

(2009) or Melzer (2009), which look at all assignment questions set in a particular course, can provide more accurate information about the spread of assignment tasks over departments. They do not, however, examine the actual assignments written, as we do.

Genres and registers

In Systemic Functional Linguistics, the term register 'refers to the fact that the language we speak or write varies according to the type of situation' (Halliday, 2009: 439). This goes beyond notions of genres

as described above to consider notions of field, tenor and mode. Thus for student writing, we expect the language of an Explanation genre in Biology to be similar to an Explanation genre in Physics because they both aim to explain a scientific phenomenon, but we also expect it to be different in register, in ways that reflect the type of situation: who is writing it (tenor); what is being explained (field); and the role language plays (mode). Within genre families, we can explore differences in tenor by comparing first and final year writing, we can explore differences in field by exploring writing across different disciplines, and we can explore differences in mode by considering the role that features such as tables, figures and graphs play alongside writing in student assignments. Halliday's theory of register points us to particular linguistic features that may be relevant: the nature of the activity (field) will be reflected in the ideas or participants, processes and circumstances[1] represented, the role relationships (tenor) help to determine the expressions of certainty, hedging, evaluation and other interpersonal features, and the symbolic organisation of the text (mode) influences choices in areas such as cohesion and reference (Halliday, 2009: 55).

There is no general consensus about the meanings of the terms 'genre' and 'register', however, as Biber and Conrad (2009: 21) point out. Biber's 1988 study refers to 'genre' rather than 'register', but later studies (Biber, 1995; Biber et al., 1999) refer exclusively to 'register' and Biber and Conrad (2009) use both terms, but in rather different ways from Halliday (2009) and from Martin (1992). Like Martin (1992), Biber and Conrad regard rhetorical organisation (staging) as a defining characteristic of genre (2009: 16), but they also count formatting and the use of specialised expressions as generic features, whereas for SFL these are more often indicative of mode and field. The features Biber and Conrad associate with genre are difficult to quantify, and are not considered during the process of multidimensional analysis. Register is described by Biber and Conrad not only in terms of lexico-grammatical features (see Appendix 1.3), but also in terms of situational context and communicative purpose. It is assumed that linguistic features occur because they suit the context and the purpose of the register, and that 'linguistic features are always functional when considered from a register perspective' (Biber and Conrad, 2009: 6).

Halliday, Martin and Biber may differ significantly in their methodology, but all are concerned with identifying lexico-grammatical features that occur in specific social situations. This too is our perspective on register. Following Martin (1992), we can separate decisions about genre (based on social purpose and staging) and cultural

ways of doing things from decisions about register (based on the specific situation) where our focus in particular is on the experience of the writer and the disciplinary context.

2.2 Thirteen genre families identified

Having introduced the key concepts used in developing our classification, we now explain the procedure followed and present the thirteen genre families grouped under the five broad social functions identified.

Starting from disciplinary contexts

Our grouping of texts into genres and genre families started not with the texts themselves, but with their disciplinary contexts. We knew that if we simply read the texts, we would bring to bear our own interpretations of their functions and purposes, of what was important and what was less significant. This bias in reading has been shown to apply across disciplines; for example, English teachers trained in the Humanities interpret writing differently from business persons (Forey, 2004).

Although we have worked for decades with tutors and students from many disciplinary backgrounds, and had a general awareness of disciplinary differences from earlier research and readings, for this study we interviewed students (Gardner and Powell, 2006) and lecturers (Nesi and Gardner, 2006), and examined course handbooks and assignment briefs from across the disciplines, as well as university and national documentation on assessment criteria and benchmarking in higher education. This enabled us to understand participants' views about what is deemed important in a piece of writing, what makes a good assignment, why certain stages or features are significant, what is mandated, what is provided by the tutor in various ways (readings, laboratory experiment objectives, demonstrations), and where students are expected or encouraged to show their own initiative. Through this process we deepened our insights into disciplinary perspectives on student writing.

We became aware, for instance, that although assignments from different levels of study in Physics might look similar, the proportion of work done by the students without guidance increases as they progress through the levels. We learned that the rationale for 'self-assessment' components to assignments is quite varied across disciplines. We realised, not surprisingly perhaps, that lecturers from the same department value different, and in some cases contradictory, features in student writing – the role of signposting is a typical

example where some feel strongly that this is a positive feature and others prefer texts with very little metatext. Perhaps most importantly for our study, we began to understand the values associated in different disciplines with the metalanguage of assessment, with terms such as 'argument', 'critical perspective', 'explanation' and 'evidence'. These understandings were related not only to specific texts and assignments, but also to trends in the broader educational and disciplinary contexts.

The second major reason for starting from disciplinary context was to inform the composition of the corpus. We first interviewed a department's director of studies, or someone recommended as having an interest and breadth of experience in teaching in the department. We asked not only about the assignments and what was valued in them, but also about the spread of modules and assignments across each level, which modules set out-of-class written assignments as opposed to tests, final exams or other practical exams, and the typical progression routes through the department courses. From these consultations and course literature we developed a plan to target a balance of core and optional modules for each level. University degree structures in England are still relatively standard, with students tending to major in one or two subjects, and with most students following a similar path towards graduation within each department.

Grouping similar texts

Once the corpus was compiled, we read all the assignments and began the process of grouping those that were similar. Our classification is grounded in 2,761 assignments set by tutors in around 1,000 modules from 300 degree courses (the BAWE corpus). As an abstraction, it provides an account of the nature of student writing across disciplines and across levels of study.

The grouping was essentially a bottom-up process, starting with assignments which responded to the same type of brief or title and were organised in a similar way. The more specific the assignment type, the easier it was to create a group. Assignments with a highly conventionalised structure, such as the patient portfolio case reports produced by students in the Medical School, were quickly sorted, initially leaving large groups of what looked like essays and reports that required greater differentiation.

Whilst reading and re-reading the assignments, we looked for statements of assignment purpose which might be found in abstracts, or in introductions and conclusions; headings and subheadings were useful in extracting assignment skeletons or macrostructures (Gardner and

Holmes, 2010) to inform the grouping process. The first and last sentences of each section and paragraph gave a rough idea of the content of that section / paragraph and could be quickly skim-read, and reading and rereading the texts enabled us to determine the purpose and stages of what had been written, and to recognise it in other texts.

Through discussion and the posing of questions about function, stages and purpose, we grouped assignments and were able to identify critical features that differentiated one set from another. Thirteen distinct groups were ultimately identified through this process (see list) and given labels. We refer to these as genre families, where each text is assigned exclusively to one of the 13 families. As with genres, there are clear prototypical examples, as well as more marginal examples, some of which may seem to be on the border between two genre families. In marginal cases we made decisions about which functions and purposes were dominant, or which components obligatory, and here in particular reference to contextual information was helpful.

Our classification of genre families is thus grounded in our corpus of texts. The extent to which our findings are generalisable will emerge in future applications.

The thirteen genre families
1 Case Study
2 Critique
3 Design Specification
4 Empathy Writing
5 Essay
6 Exercise
7 Explanation
8 Literature Survey
9 Methodology Recount
10 Narrative Recount
11 Problem Question
12 Proposal
13 Research Report

The 13 genre families differ in social purpose, in generic stages, and in the networks they form with other professional and / or academic genres. Examples of genres within each family are included here for information, and described in more detail in subsequent chapters.

As explained earlier, the social purpose of university assignments is a complex notion. It would therefore be possible to group the genre families in different ways. For example, it would be possible to distinguish assignments that involve planning future activity from those

that involve reporting on past activity. Thus genres in the Proposal and Design Specification families share a future orientation; where most genres in the Research Report, Methodology Recount and Narrative Recount families share an orientation of retelling what has been achieved.

Other genre families focus less on activity and more on theories and concepts. Thus we can distinguish assignments which involve explaining or summarising important ideas or bodies of literature such as Explanations and Literature Surveys, from those that involve analysing and evaluating entities, such as Case Studies, Critiques and Problem Questions, and from those whose main focus is the development of a thesis or an original piece of research, such as Essays and Research Reports.

These rhetorical perspectives suggest a logical progression where summary, explanation and evaluation of the work of others inform independent original work; and where planning a project logically precedes reporting on it. Such patterns can be seen in some departments, but most courses do not follow this sequence consistently.

In this book we have grouped the genre families according to the broader social and educational purposes they serve as part of a university education. These reflect expectations that universities will produce graduates who are (1) knowledgeable in specific disciplines; (2) who can make informed judgements; (3) who can design and conduct independent research; (4) who are prepared for graduate employment; and (5) who are able to critically reflect on their learning and personal development.

These five broad social functions of university education are reflected in national education guidelines, as we shall see in subsequent chapters. Universities not only prepare students to enter specific professions, or to pursue further research or training, but more generally, they also prepare graduates who are expected to contribute to the world of work and to an educated society.

Within these five broad categories, each genre family has its own distinctive social purpose, where the typical unfolding stages of each genre family are also core defining characteristics. In addition, genre networks provide information about the connections between genre families, suggesting how specific genres in each family may relate to other professional or academic genres. Tables 2.4–2.8 indicate the social purpose, stages and networks, with examples of each genre family. Readers are encouraged to read these tables, as our intention here is to introduce the genre families, then to more fully describe them in subsequent chapters as indicated in the right hand column of Table 2.3.

Table 2.3   Thirteen genre families grouped by social function

Social function	Genre families	*see*
1. demonstrating knowledge and understanding	Explanation, Exercise	Chapter 3
2. developing powers of independent reasoning	Critique, Essay	Chapter 4
3. building research skills	Literature Survey, Methodology Recount, Research Report	Chapter 5
4. preparing for professional practice	Case Study, Design Specification, Problem Question, Proposal	Chapter 6
5. writing for oneself and others	Narrative Recount, Empathy Writing	Chapter 7

Demonstrating knowledge and understanding

Two genre families have as a central purpose the demonstration of knowledge and detailed understanding: Exercises and Explanations.

Exercise genres give students opportunities to demonstrate understanding, generally of basic skills and concepts. Exercise genres tend to be easy to identify from their layout: they are typically short, numbered responses to questions that are not included in the student texts. The responses may be calculations with minimal explanation, or short answers such as definitions of key terms. Writing such assignments allows students and lecturers to check that students have mastered basic skills and concepts, and ensures that they are prepared to move on to perform calculations and use central ideas appropriately in future assignments. Exercises are set as formative and summative assignments, by which we mean that if marks are given, they do not necessarily contribute towards the degree classification. The Exercises in the BAWE corpus, like all assignments in the corpus, were all formally graded as very good or excellent (see Section 1.4).

Explanation genres also require students to demonstrate knowledge and understanding, and to answer questions, such as 'What is x?', but they are generally longer than Exercises, and additionally expect students to explain how something works or functions. Explanations are common in Biology, Chemistry, Engineering and other sciences where students may be asked to explain the nature of phenomena such as stem cells, organophosphates, road vehicle drag or code-switching. Writing an explanation may involve consulting

Table 2.4   Exercises and Explanations

Genre family	Exercise	Explanation
Social purpose	to provide practice in key skills (e.g., the ability to interrogate a database, perform complex calculations or explain technical terms or procedures), and to consolidate knowledge of key concepts	to demonstrate / develop understanding of the object of study and the ability to describe and / or account for its significance
Stages	data analysis or a series of responses to questions	includes descriptive account and explanation
Networks	may correspond to part of a Methodology Recount, Design Specification or Research Report	may correspond to a published Explanation, or to part of a Critique or Research Report
Examples	calculations data analysis mixed (e.g., calculations + short answers) short answers statistics exercise	business explanation concept / job / legislation overview instrument description methodology explanation organism / disease account site / environment report species / breed description account of natural phenomenon system / process explanation

several sources and synthesising what they say, but the explanations themselves are intended to demonstrate current shared knowledge and understanding.

Developing independent reasoning

Particularly at lower undergraduate levels, the underlying educational function of Explanations, Critiques and Essays is very similar in encouraging students to make sense of central phenomena and claims in their discipline, yet the stages of the assignment genres differ, as does the way sense making is expressed. In Explanations students are expected to put forward a shared view generally with certainty to answer the question, 'What is x and how does it work?'; in Critiques

Table 2.5   Critiques and Essays

Genre family	Critique	Essay
Social purpose	to demonstrate / develop understanding of the object of study and the ability to evaluate and / or assess the significance of the object of study	to demonstrate / develop the ability to construct a coherent argument and employ critical thinking skills
Stages	includes descriptive account with optional explanation, and evaluation with optional tests	introduction, series of arguments, conclusion
Networks	may correspond to part of a Research Report or Design Specification, or to an expert evaluation such as a book review	may correspond to a published academic / specialist paper
Examples	academic paper review approach evaluation business environment analysis business / organisation evaluation financial report evaluation interpretation of results legislation evaluation (legal) case report policy evaluation product / building evaluation programme evaluation project evaluation review of a book / film / play / website system evaluation teaching evaluation	challenge commentary consequential discussion exposition factorial

they are expected to also evaluate the phenomenon or theory and to answer the more open question, 'What is the value of x?', while in Essays students are expected to develop ideas, make connections between arguments and evidence, and develop an individualised thesis.

Essays form the bulk of assignments in History, English, Philosophy, Archaeology and Classics, where the evidence to support an argument has to be sought, and is more open to interpretation. Most Essays are written in response to questions given by tutors, such as 'Is it worthwhile to test intelligence?' These expect students to gather evidence and form their own thesis in response. In Chapter 4 we shall

see how the core stages of introduction, series of arguments and conclusion are realised in the different Essay genres such as challenge, discussion and exposition.

Building research skills

Although it could be argued that other genres, for example Explanations, contribute towards building research skills in students, when we look at final year projects as an example of Research Reports, we see the main thing that differentiates them from a lab report conducted earlier in the course is the inclusion of a substantial literature review, a member of the Literature Survey genre family.

Many of the Literature Surveys in our corpus are annotated bibliographies, summaries of articles and literature reviews that students write as a first step towards conducting research. In this sense they are preparatory, and allow lecturers to assess progress in the research process.

The most frequent and most uniformly structured genre family in this group is the Methodology Recount, of which laboratory reports are prototypical. These correspond to the well-documented IMRD experimental report texts. There is variation across disciplines in the specifics, labels used and lengths of each stage (Gardner and Holmes, 2009), but the general format is easily recognisable. The main purpose of the genre is to present an account of the procedures followed and the findings of an experimental study.

The third genre family here is Research Report. These are generally the longest student assignments in the discipline and are designed to demonstrate an ability to conduct a complete piece of research, as in a final year project or undergraduate dissertation.[2]

Preparing for professional practice

Case Studies, Design Specifications, Problem Questions and Proposals share the objective of making recommendations for future practice, and an orientation to professional activity outside the university.

In Problem Questions a situation is described and students have to analyse it from a professional perspective to produce recommendations that conform to guidelines such as legal rules and precedents. In Case Studies students focus on a particular instance of a more general case in order to describe it from a range of perspectives and conclude with recommendations intended to improve the 'case'. As the names suggest, Design Specifications are concentrated in areas of manufacturing and computing, while Proposals, which include

Table 2.6   Literature Surveys, Methodology Recounts, Research Reports

Genre family	Literature Survey	Methodology Recount	Research Report
Social purpose	to demonstrate / develop familiarity with literature relevant to the focus of study	to demonstrate / develop familiarity with disciplinary procedures, methods and conventions for recording experimental findings	to demonstrate / develop ability to undertake a complete piece of research including research design, and an appreciation of its significance in the field
Stages	includes summary of literature relevant to the focus of study and varying degrees of critical evaluation	describes procedures undertaken by writer and may include IMRD sections	includes student's research aim / question, investigation and relevance to other research in the field
Networks	may correspond to part of a Research Report or to a published review article or to an anthology	may correspond to part of a Research Report or published research article	may correspond to a published experimental research article or topic-based research paper
Examples	analytical bibliography annotated bibliography anthology literature overview literature review research methods review review article	computer analysis data analysis report development report experimental report field report forensic report lab report materials selection report (program)	research article student research project topic-based dissertation

research proposals, are found across disciplines. Both genre families are forward looking and expect students to produce plans that are detailed and realistic.

Problem Questions occur most frequently in the Social Sciences such as Law, Accounting and Economics, while Case Studies are common in Health and Business areas.

Table 2.7 Case Studies, Design Specifications, Problem Questions, Proposals

Genre family	Case Study	Design Specification	Problem Question	Proposal
Social purpose	to demonstrate / develop an understanding of professional practice through the analysis of a single exemplar	to demonstrate / develop the ability to design a product or procedure that could be manufactured or implemented	to provide practice in applying specific methods in response to professional problems	to demonstrate / develop ability to make a case for future action
Stages	description of a particular case, often multifaceted, with recommendations for future action	typically includes purpose, design development and testing of design	problem scenario (may not be stated in assignment), application of relevant arguments or development of possible solution(s)	includes purpose, detailed plan and persuasive argumentation
Networks	typically corresponds to professional genres (e.g., in business, medicine and engineering)	may correspond to a professional design specification or to part of a Proposal or Research Report	problems or situations resemble or are based on real legal, engineering, accounting or other professional cases	may correspond to professional or academic proposals
Examples	business start-up company report organisation analysis patient report single issue	application design building design database design game design label design product design system design website design	business scenario law problem logistics simulation question	book proposal building proposal business plan catering plan legislation reform marketing plan policy proposal procedural plan research proposal

Writing for oneself and others

The construction of audience in academic writing is complex. All assessed writing is written to some degree for the tutor, and for other internal and external moderators, and therefore has to address explicit assessment criteria. This can be challenging when non-traditional genres are assigned, as is the case with Empathy Writing and reflective Narrative Recounts.

Empathy Writing, a term coined by Lea and Street (2000: 39), here refers to assignments that involve communicating disciplinary knowledge in forms such as newspaper articles or information leaflets and in registers suitable for 'general' rather than academic audiences. As assignments, they challenge writers to understand disciplinary knowledge and express it using transferable, 'non-academic' writing skills that are intended to prove useful in the world of work.

Table 2.8   Empathy Writing and Narrative Recount

Genre family	Empathy Writing	Narrative Recount
Social purpose	to demonstrate / develop understanding and appreciation of the relevance of academic ideas by translating them into a non-academic register, to communicate to a nonspecialist readership	to demonstrate / develop awareness of motives and / or behaviour in individuals (including self) or organisations
Structure	may be formatted as a letter, newspaper article or similar non-academic genre	fictional or factual recount of events, with optional comments
Network	may correspond to private genres as in personal letters, or to publically available genres as in information leaflets	may correspond to published literature, or be part of a Research Report
Examples	expert information for journalist expert advice to industry expert advice to layperson information leaflet job application letter (e.g., reflective letter to a friend, business correspondence) newspaper article	accident report account of literature search account of website search biography character outline creative writing: short story plot synopsis reflective recount report on disease outbreak urban ethnography

Empathy Writing genres are common in the Sciences where students may be asked to write a letter to a mathematician or to develop a nutritional advice leaflet for the general public.

Narrative Recounts include personal accounts of website or literature searches and reports on events such as accidents or disease outbreaks. The chronological presentation enables students to review the events and understand how they fit together. As these are personal, they can assume a reflective angle which is intended to enable student writers to consider the processes of their personal and professional development. In this sense, they are writing 'for themselves'.

While the thirteen genre families are characterised in Tables 2.4–2.8 in terms of their social purposes and their stages, it follows that members of genre families also share patterns of linguistic features. The multidimensional analysis of these genre families conducted by Biber (1988) at the University of Northern Arizona allows us to show relationships between these genres, as characterised by their lexico-grammatical features.

2.3 Plotting the genre families along five register dimensions

Multidimensional analysis, as described in Biber (1988) and explained in Section 1.6, allows us to plot the distribution of genre families along five dimensions which suggest how informational, narrative, situation dependent, persuasive and impersonal the writing is (Biber et al., 2002: 18). While readers should be able to predict the position of Recount versus Proposal genres, for instance, on certain dimensions, the multidimensional analysis provides evidence from linguistic features in support of our classification of genre families. The distribution of genre families shows, for instance, how two genre families can be similar on one dimension, and different on others, and thus enhances our understanding of the genre families classification.

Highly informational

The first dimension analysis shows that student writing has 'high informational density and precise informational content' (Biber et al., 2002: 17), with relatively many nouns, prepositions, long words and a high type–token ratio[3]. All our student writing is on the informational end of the dimension, comparable with general academic (published) prose[4] at −15 (Biber, 1988) and with university textbooks[5] at −16 (Biber et al., 2002: 25) and in contrast with the interactive, personal

−4.82 Narrative Recount

         −11.50 Empathy Writing
         −11.95 Problem Question
         −12.10 Exercise

                −13.09 Design Specification
                   −14.33 Essay

                        −14.83 Critique
                        −15.41 Explanation

                              −15.86 Methodology Recount
                              −16.19 Research Report
                              −16.40 Case Study
                              −16.42 Proposal

                                      −17.91 Literature Survey

⟶
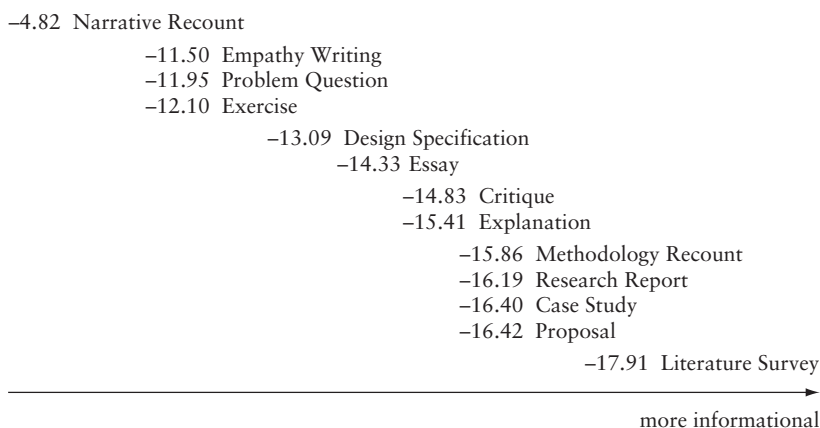
                                 more informational

Figure 2.1   The involved versus informational dimension

and highly involved register of classroom teaching (+28) or university service encounters (+57) (ibid.). Among genre families, the Literature Survey register is significantly more informational at just less than −18 while the Narrative Recount register is significantly[6] less informational at just less than −5.

The similarity of Empathy Writing, Problem Question and Exercise at about −12 on this dimension differentiates them from the more densely informational style of Research Reports or Case Studies. Literature Surveys are significantly the most informational, which is consistent with their purpose of summarising information. This dimension also suggests that where Narrative Recounts tend to have a relatively low type–token ratio reflecting the repetition typical of narrative (see Narrative Recount extract on page 48), Literature Surveys have a relatively high type–token ratio as they involve summarising information from a range of different sources.

Non-narrative

As might be predicted, Narrative Recounts are also significantly higher on this dimension than all other genre families, suggesting they have more past tense verbs, third person pronouns and perfect aspect verbs. However in comparison with non-academic texts such as general fiction which scored +6, or romantic fiction which scored +7 (Biber, 1988) they are still very much on the negative or 'academic' end of the scale, and again close to general academic writing (Biber, 1988) and the T2K-SWAL (TOEFL 2000 Spoken and Written Academic Language corpus) textbooks which scored −3 (Biber et al., 2002: 29).

–1.11 Narrative Recount

   –2.48 Essay
   –2.62 Literature Survey

     –2.74 Empathy Writing
     –2.77 Problem Question
     –2.86 Case Study

       –3.07 Critique
       –3.12 Research Report

         –3.59 Explanation
         –3.65 Methodology Recount

           –3.79 Proposal
           –3.85 Exercise

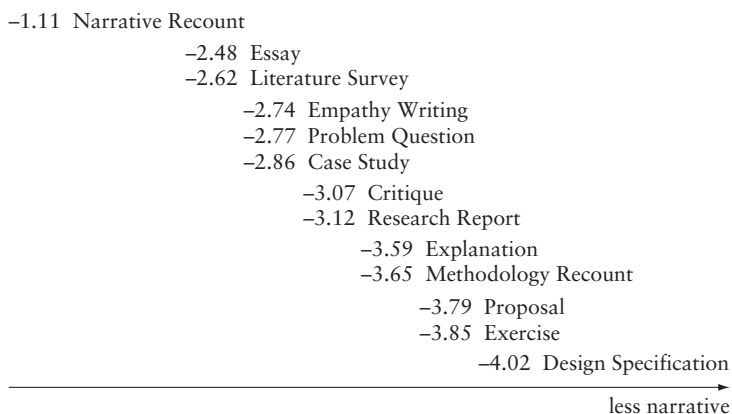   –4.02 Design Specification

less narrative

Figure 2.2 The narrative versus non-narrative dimension

Interesting here is the position of Essays as second, which can be explained if we consider the predominance of Essays in disciplines such as History and Classics, where we might expect narration. The position of Methodology Recounts at –3.65 towards the least narrative end is perhaps surprising, given the central role that reporting past events plays in this genre family, but it serves to remind us that Methodology Recounts are more than records of what was done; they have four stages (IMRD), only one of which, albeit the key defining stage, involves recounting what happened. As Proposals and Design Specifications involve future plans, their position as least narrative makes sense if we remember that narrative is interpreted through *past* tense and *third* person grammatical features as well as public verbs such as 'explained' and 'said'. The span of this dimension between Essays and Design Specifications is also relatively small (–2 to –4), suggesting there is less difference in register between all the genre families on this dimension than might be thought.

Elaborated reference

The third dimension reflects a polarity from situation-dependent reference, with frequent use of time and place adverbials, to elaborated reference, including frequent use of *wh*-relative clauses, phrasal coordination and nominalisations (Biber et al., 2002: 30). Student writing clusters at the elaborated end of the dimension alongside general academic writing (Biber, 1988) and the T2K-SWAL textbooks which scored –6.[7]

−3.8 Narrative Recount
　　　−4.1 Design Specification
　　　　　　−4.5 Empathy Writing
　　　　　　−4.5 Methodology Recount
　　　　　　−4.6 Exercise
　　　　　　　　−5.0 Explanation
　　　　　　　　　　−5.2 Problem Question
　　　　　　　　　　　　　　−5.5 Research Report
　　　　　　　　　　　　　−5.8 Case Study
　　　　　　　　　　　　　　　−6.0 Critique
　　　　　　　　　　　　　　　　−6.2 Essay
　　　　　　　　　　　　　　　　　　−6.3 Literature Survey
　　　　　　　　　　　　　　　　　　−6.3 Proposal
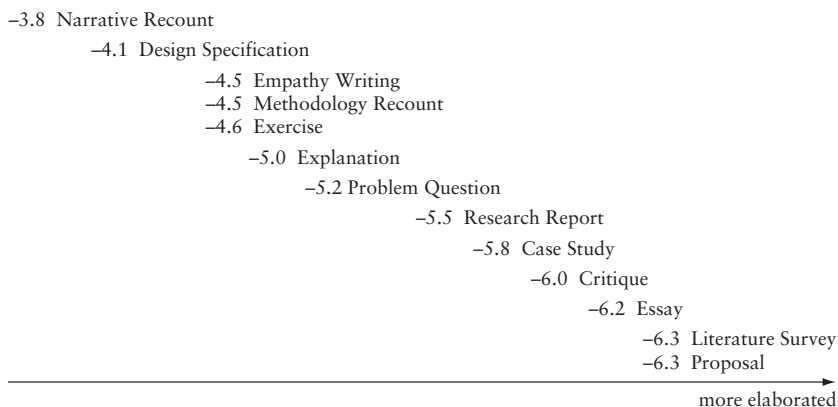
more elaborated

Figure 2.3   The elaborated versus situation-dependent dimension

In contrast to Dimension 2 (the narrative versus non-narrative dimension), this dimension places Design Specifications and Methodology Recounts closer to Narrative Recounts. This highlights their shared attention to specific circumstantial details, in contrast to Essays and Proposals where reference is more elaborated.

The persuasive dimension

Overt expressions of persuasion or argument are seen at the positive end of this dimension where infinitives (*hope to go*), prediction modals (*will, would, shall*), suasive verbs (*command, insist, propose*), conditional subordination (*if you want*) and necessity modals (*must, should, have to*) are significant. Again student writing is similar to textbooks in the T2K-SWAL corpus at −1.8 (Biber et al., 2002: 34), but interestingly most genre families appear to have fewer persuasive features than general academic writing texts, which in Biber's (1988) study were unmarked for this dimension at 0. In other words, in this dimension much student writing is more similar to textbooks in its absence of persuasive features than to published research where some persuasive features are found. Unusually BAWE student writing is in the middle of this dimension which extends from newspaper editorials at 3 to radio broadcasts at −4.

   Persuasive register features are most salient in Problem Questions, which involve giving advice or recommendations. They are also found in Proposals and Design Specifications which involve making a case for future action. Although the purpose of Essays is to make

1.6 Problem Question
    1.3 Proposal
        0.8 Empathy Writing
        0.7 Design Specification
            –0.5 Case Study
            –0.7 Narrative Recount
                –1.3 Exercise
                    –1.6 Critique
                    –1.8 Essay
                        –2.3 Explanation
                        –2.4 Research Report
                        –2.5 Methodology Recount
                            –3.4 Literature Survey

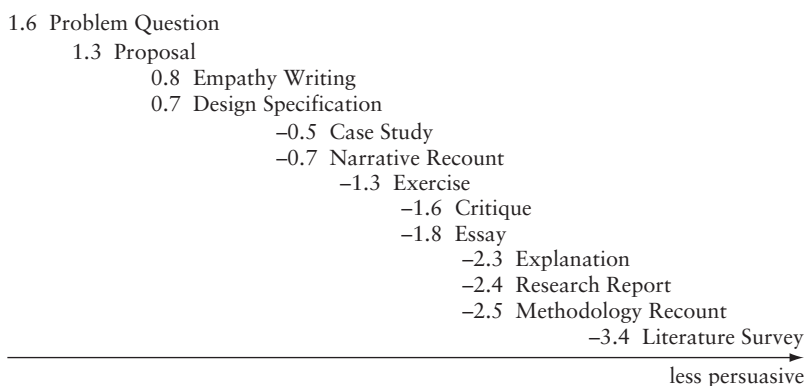   less persuasive

Figure 2.4   The persuasive dimension

a case or develop an argument, as we shall see in Chapter 4, they do not typically use this type of persuasive language to do so. It is important to remember that these descriptions are based on multidimensional analysis of grammatical features in the data as a mass of text, not functional or genre analysis of whole texts. This dimension groups the more 'factual' genre families of Explanation, Methodology Recount and Literature Survey together in their lack of interpersonal, future-oriented and persuasive grammatical features.

The non-impersonal versus abstract and impersonal dimension

The genre family registers on the fifth dimension are identified as abstract and impersonal through their use of conjuncts (*thus, however*) and passive structures including agentless passives, past participial adverbial and post-nominal clauses (Biber et al., 2002). Interestingly this is the only dimension where the T2K-SWAL corpus textbook register at –3.9 is at one end rather than around the middle of the BAWE corpus genre families. This suggests that textbooks with attention to their pedagogic function are less impersonal than student assignments.

    It is not surprising that Methodology Recounts, most of which are in the sciences, use many agentless passives and that this genre family is the most abstract and impersonal in this sense. What is perhaps more surprising is the extent to which all student writing is characterised as abstract and impersonal, even Empathy Writing and Narrative Recounts.
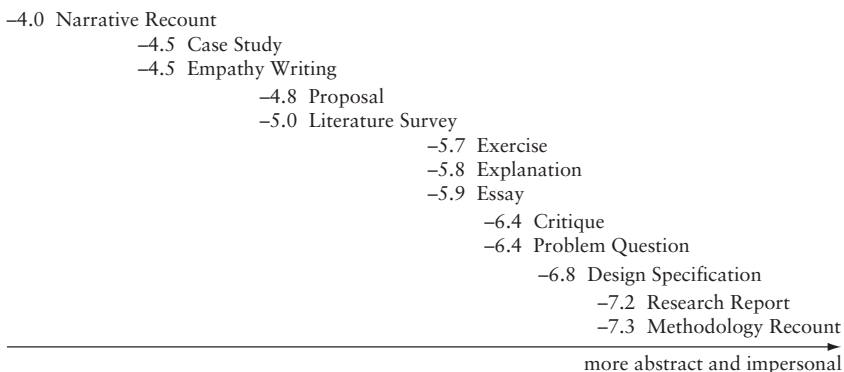
–4.0 Narrative Recount
    –4.5 Case Study
    –4.5 Empathy Writing
      –4.8 Proposal
      –5.0 Literature Survey
         –5.7 Exercise
         –5.8 Explanation
         –5.9 Essay
           –6.4 Critique
           –6.4 Problem Question
             –6.8 Design Specification
               –7.2 Research Report
               –7.3 Methodology Recount

                   more abstract and impersonal

Figure 2.5   The abstract impersonal dimension

Registers across genre families

The mapping of genre families along the register dimensions identifies the Narrative Recount genre family as an outlier on four of the five dimensions, and statistically significantly different from the others on two. As the following extract suggests, the language used in Narrative Recounts is not typical of academic writing:

> *We carried out an assigned task to discuss 'what we were like in a team' and it became apparent that we all wished to work towards a similar outcome and had roughly the same attitude towards teamwork. This involved everyone taking their fair share of work, commitment to deadlines and to the team. Initially I was quite worried about working within a team, as this was a method of working I had not been exposed to at university in previous terms. I felt quite relieved and enthusiastic once I had discovered members of my group had similar team objectives; however we were all unwilling to express strong opinions at this point.*
>
> (Narrative Recount)

This extract includes many of the features of 'involved' rather than 'informational' texts in Dimension 1 not usually associated with academic writing: first person (*I, we*), private verbs or mental processes (*wished, worried, felt relieved and enthusiastic, unwilling*), general hedges (*roughly, quite*). This is still far from conversational language, and there are also features more typically associated with academic writing, such as lack of contractions and nominalisation (*task, outcome, teamwork, objectives, opinions*).

The other twelve genre families share different features across the range. For example, Essays are similar to Literature Surveys on narrative and situation dependent dimensions, but different on the

informational and persuasive dimensions; Methodology Recounts are similar to Research Reports on most dimensions, but differ in situation dependence. Proposals and Design Specifications differ on most dimensions but are similar in persuasion.

A comparison of two Proposals from different disciplines shows differences in field (zoos and chimpanzees versus deals, clients and solutions) and in tenor (the writer's role as indicated through the presence versus absence of first person '*I*').

Preliminary investigations at four other locations
I plan to spend a minimum of three days at each of the other four zoos before beginning my two-week observation period at each location, starting in May 2006. During preliminary visits to the zoos I will take digital photographs of each of the chimpanzees, and in the presence of the caregivers write down the names, ages and sexes of those individuals. I will then be able to compile an identification sheet for each chimpanzee, and I will spend the days of my preliminary unrecorded observations recognising the group members.

<div align="right">(Anthropology Proposal)</div>

1 *When a deal is struck between SI and the client, a series of meetings can be held at either of the offices regarding the details of the needs of the client vis-à-vis exact solutions that SI can provide. If some need of the client is out of the SI expertise domain it can look for other companies that can carry out the service required efficiently.*
2 *After the initial round of meetings, an exact timeline could be mapped out detailing delivery, installation & training of the softwares.*
3 *Depending on the length of the project a series of review meetings could be planned which are weekly (for small tasks), monthly (for intermediate tasks) and bi-monthly (for overview of the project).*
4 *Finally after successful completion of the project, after completion checks could be carried out whereby hassle free running of the software is ensured.*

<div align="right">(Engineering Proposal)</div>

Despite the contrasting registers, both these extracts explicitly *plan* and show their future orientation predominantly through modals of prediction (*I will*) or of possibility (*can, could*), alongside other overtly persuasive features such as conditional subordination (*when…, if…*).

These similarities will become clearer in later chapters where examples of the genre families are discussed, but the potential for applications to teaching should be immediately evident from the mapping of salient grammatical features onto genre families. More importantly for this chapter, the multidimensional analysis provides empirical evidence which makes sense in support of the distinct genre family categories. It also shows how similar student writing registers

are to those of general academic writing and of the textbooks in the T2K-SWAL corpus.

Broadly speaking, the registers of student writing are characterised as highly informational, non-narrative, elaborated, lacking overt features of persuasion, and highly impersonal. The next questions to ask are whether they become increasingly so as students progress from Level 1 to Level 4 (i.e., from first year undergraduate through to final year and taught Masters courses), and how genres and registers vary across disciplinary groups.

2.4 Progression over levels of study and disciplinary group

Distribution of genre families over disciplinary groups

The 13 genre families are well distributed across the four disciplinary groups of Arts and Humanities (AH), Life Sciences (LS), Physical Sciences (PS) and Social Sciences (SS) in our corpus as shown in Table 2.9, where the genre families are arranged by frequency (Nesi et al., 2008). As expected, the Essay is the most populous genre family, but the least populated genre families of Literature Survey and Empathy Writing also occur across all four disciplinary groups.

The range shows the distribution across the 24 main collection departments, that is those from where we have at least 50 assignments. Essays and Critiques are found in all 24 departments; most

Table 2.9   Distribution of genre families across disciplinary groups

	Essay	Method. Recount	Critique	Explanation	Case Study	Exercise	Design Spec.	Proposal	Narrative Recount	Research Report	Problem Question	Empathy Writing	Literature Survey
AH	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	X	✓	✓
LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Frequency	1237	361	322	214	194	114	93	76	75	61	40	36	35
Range / 24	24	15	24	15	12	15	7	15	14	17	7	11	11

genre families occur in between 11 and 15 departments; while Design Specifications and Problem Questions are the most specialised, occurring in seven of the main 24 departments in our corpus.

Thus most departments use a range of genres, and all thirteen genre families appear in at least seven of our major collection departments. As the genre family classification was developed after data collection was complete, and as we collected across modules and assignment types (e.g., what departments called essays, reports or case studies) rather than across genres, it is possible that the genre families are distributed even more widely.

We would not expect the genre families to be evenly distributed, however. For example, Essays represent over 90 per cent of the Level 1 Arts and Humanities (AH1) assignments collected and fewer than 10 per cent of the Level 4 Physical Science (PS4) assignments. The distribution across levels and disciplinary groups will now be explored further.

Distribution of genre families over disciplines and levels of study

In our description of genre families we have pointed out that some, like Exercises, are intended to develop lower level skills, while others, like Research Reports, are intended to be a culmination of earlier work in a substantial project. It will be no surprise then to learn that the distribution of genre families over levels of study in the BAWE corpus reflects this. In Figure 2.6 we display the distribution of genre families by level and disciplinary group, where the Levels 1 to 4 represent first year, second year and final year undergraduate work, and postgraduate work. The data are found in Appendix 2.

This graph shows the dominance of Essays in Arts and Humanities as well as Social Sciences, at more than 50 per cent of all assignments, in comparison to the range of genres in Life Sciences and Physical Sciences, where Explanations and Methodology Recounts are more frequent.

For Arts and Humanities, we note that as the proportion of Essays decreases with level of study from Level 1 (AH1) at 91 per cent to Level 4 (AH4) at 61 per cent, the proportion of Critiques increases from 4 per cent to 20 per cent. This also reflects the general finding that a greater diversity of genres is required with each level of study, particularly at undergraduate level.

In Social Sciences the proportion of Case Studies increases from 4 per cent (SS1) to 11 per cent (SS3) while the proportion of Problem Questions fluctuates from 5 per cent (SS1) through 7 per cent (SS2) to
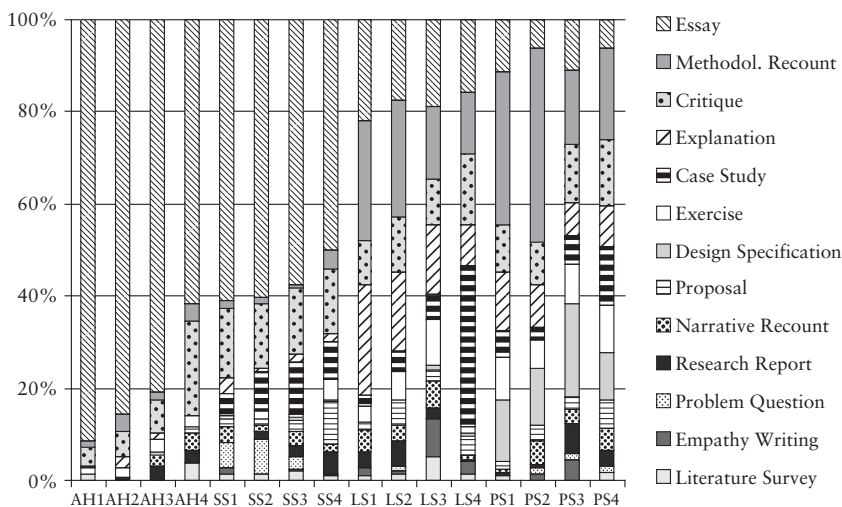
Figure 2.6   Genre family proportions by disciplinary level

2 per cent (SS3). Most Problem Questions are found here in SS1 and SS2 modules.

In contrast, most Explanations are found in the Life Sciences, where their proportion decreases significantly from 25 per cent in LS1 to 9 per cent in LS4 as the proportion of Empathy Writing increases towards 8 per cent in LS3 and graduation. The significant proportion of Case Studies in LS4 (35 per cent) reflects the large number of medical case studies produced across modules in postgraduate training.

Methodology Recounts are found in large proportions in the early years of the Physical Sciences with 33 per cent at Level 1 rising to 46 per cent at Level 2. There is then a notable switch to a more balanced range of activity including Design Specifications (20 per cent), Research Reports (6 per cent) and Empathy Writing (4 per cent) in Level 3.

The proportions[8] of genre families at each disciplinary level are presented here to extend our earlier account (Section 2.2) of the functions of the different genres, and how students are expected to progress through their degree pathways from, for instance, typical Level 2 genres of Problem Questions in Social Sciences, Explanations in Life Sciences and Methodology Recounts in Physical Sciences, to genres that allow for more student originality such as Research Reports that build on these understandings, and to Empathy genres that anticipate the workplace.

2.5   Conclusion

This chapter has explained how and why we classified the texts in the BAWE corpus into genre families. It has provided an overview of the thirteen genre families, grouped according to their broad social functions. The development of our classification started in discussions with lecturers and students which informed our careful reading of all texts in the corpus, with particular attention to their purposes and staging. Our descriptions of these thirteen genre families are enhanced by brief accounts of the genre networks and examples of genre members from across the disciplines. We then described the registers of the thirteen genre families along five dimensions which help explain some of the differences between the genre families. Our account of genre families across disciplinary groups and levels of study helps to locate the genre families across the academy, while the account of register variation across levels of study underscores the similarity between student writing and other written academic genres.

We now turn our focus to the broader social functions of university student writing which we identify as demonstrating knowledge and understanding (Chapter 3), developing independent reasoning (Chapter 4), building research skills (Chapter 5), preparing for professional practice (Chapter 6) and writing for oneself and others (Chapter 7). The development of each of these chapters moves from discussion of the broad social functions of student writing in context through a description of those genre families and their members that most centrally realise the functions, to disciplinary differences across these genres and registers, and an examination of specific linguistic features.

Notes

1. Those not familiar with the linguistic features linked here to field, tenor and mode may wish to consult an accessible introduction to Systemic Functional Linguistics, such as Bloor and Bloor (2004).
2. Note that Masters dissertations are not included in the corpus.
3. The type–token ratio is the ratio between the number of different words in a text (the 'types') and the total number of words in the text (the 'tokens'). For the full list of features and their salience in the dimensions, see Biber (1988). A summary of these is given in Biber et al. (2002: 15–16) and in our Appendix 1.3.
4. The academic prose in the 1988 study is from the scientific and learned component of the LOB corpus which includes published research from journals, books and reports from across broad disciplinary groups (Johansson, Leech and Goodluck, 1978).

5. The 176 university textbooks form a subcorpus of the TOEFL 2000 Spoken and Written Academic Language (T2K-SWAL) corpus. They are from lower and upper undergraduate courses and graduate courses from across the disciplines.
6. Duncan's multiple-range test was used to identify genres with means that are not statistically different.
7. Following Biber et al. (2002), we reverse the polarity of Dimensions 3 and 5 in this chapter for easier comparisons across the dimensions of academic writing.
8. As we did not compile statistical data on how many assignments students write in total, these figures should not be interpreted as representing the proportion of student writing in each genre. For example, if a student contributor had written ten lab reports in one module and one product evaluation in another module, we would probably have collected just one lab report and one product evaluation from that student for those two modules.

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