Second language reading instruction: a study of an awareness-raising reading course in an agriculture college in Portugal

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To my parents
Abstract

English has become the preferred language for the dissemination of academic knowledge world-wide and in higher education both students and lecturers make extensive use of academic texts in English. This study takes as a starting point a concern about the difficulties L2 readers in a college of agriculture in Portugal face in reading academic texts in English and considers how their reading could be improved. The present study took place in a teaching situation which can be seen as naturalistic, in the sense that it was carried out in the researcher’s normal work situation following both the normal conventions of Portuguese academic life and the pre-existing social realities and routines of the college. The purpose of the study was to investigate whether awareness of certain text features and academic genres would help students and lecturers in the college to improve their reading and whether there would be any differences between these two types of academic reader. Attention was also given to rhetorical differences between Portuguese and English academic writing styles.

The effects of a language awareness approach to L2 reading instruction upon the ability of 20 Portuguese agriculture students and 15 lecturers to improve their reading were investigated. A range of qualitative and quantitative data were collected before, during and after the course and analysed in order to describe and understand whether the approach facilitated reading: the data included pre- and post-course questionnaires, interviews, pre- and post-course tests, warm-up and follow-up tasks done in class, non-participant observation, audiotapes of lessons, lesson feedback questionnaires, tasks done at home and participant observations.

The research findings indicate that participants and the teacher-researcher have different views or perceptions of language and academic texts. These divergences in perspective are grounded in the different, scientific, disciplinary cultures to which these L2 readers/learners and the teacher-researcher belong and which make them operate in different paradigms. They are also influenced by rhetorical differences between Portuguese and English academic writing styles. It is further suggested that an awareness-raising approach is an effective way of attending to reading problems in L2 since it allows learners to work on the development of their skills (e.g. skimming, scanning), using both bottom-up and top-down strategies while, at the same time, increasing their understanding of the rhetorical structure, discourse conventions and social contexts of written academic discourse in English.

On the basis of these findings practical implications for designing academic reading courses in EAP/ESP contexts are also proposed.
In accordance with Regulation 3.8.7 of the programme of postgraduate study, I hereby declare that this thesis has been composed by myself, and that the work it contains is my own.

Maria Isabel Réfega de Figueiredo-Silva
Edinburgh, February 2003
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Activities A (i.e. tasks to be completed at the beginning of the lesson)</td>
</tr>
<tr>
<td>1A-1.2: S16</td>
<td>unit number 1, Activities A, task 1.2, student number 16</td>
</tr>
<tr>
<td>C</td>
<td>Activities C (i.e. tasks to be completed at the end of the lesson)</td>
</tr>
<tr>
<td>CN</td>
<td>course notes (by teacher-participant-observer)</td>
</tr>
<tr>
<td>6CN SS2</td>
<td>course notes (by teacher-participant-observer), unit 6, group of students number 2</td>
</tr>
<tr>
<td>6CN GN</td>
<td>course notes (by teacher-participant-observer), unit 6, general course comments</td>
</tr>
<tr>
<td>FBQ</td>
<td>feedback questionnaire</td>
</tr>
<tr>
<td>2FBQ L11: Q6</td>
<td>feedback questionnaire, unit number 2, lecturer number 11, question number 6</td>
</tr>
<tr>
<td>GC</td>
<td>general course comments (by teacher-observer or by teacher-participant-observer)</td>
</tr>
<tr>
<td>H</td>
<td>handout</td>
</tr>
<tr>
<td>9H: 1</td>
<td>unit number 9 handout, page 1</td>
</tr>
<tr>
<td>HW</td>
<td>homework</td>
</tr>
<tr>
<td>5HW L13</td>
<td>homework, unit number 5, lecturer number 13</td>
</tr>
<tr>
<td>Int.</td>
<td>interview</td>
</tr>
<tr>
<td>Int. S18: Q1.4</td>
<td>interview, student number 18, question number 1.4</td>
</tr>
<tr>
<td>L</td>
<td>unidentified lecturer</td>
</tr>
<tr>
<td>L5</td>
<td>lecturer number 5</td>
</tr>
<tr>
<td>LL</td>
<td>two or more lecturers</td>
</tr>
<tr>
<td>LL1</td>
<td>group of lecturers number 1</td>
</tr>
<tr>
<td>LL2</td>
<td>group of lecturers number 2</td>
</tr>
<tr>
<td>Obs.N.</td>
<td>observation notes (by teacher-observer)</td>
</tr>
<tr>
<td>Obs. N. GC</td>
<td>observation notes, general course comments (by teacher-observer)</td>
</tr>
<tr>
<td>4Obs. N. SS1</td>
<td>observation notes (by teacher-observer), unit number 4, group of students number 1</td>
</tr>
<tr>
<td>Post-CQ</td>
<td>post-course questionnaire</td>
</tr>
</tbody>
</table>
Post-CQ S2: Q7  post-course questionnaire, student number 2, question number 7
Post-T        post-test
2Post-T L14: Q5 post-test number 2, lecturer number 14, question number 5
Pre-CQ       pre-course questionnaire
Pre-T        pre-test
Q            question
Q6            question number 6
S             unidentified student
S4            student number 4
S6?           probably student number 6
SS            two or more students
SS1           group of students number 1
SS2           group of students number 2
T             teacher
Transc.      transcription
4Transc. SS2 transcription, unit number 4, group of students number 2
1. Introduction

In this first chapter, I will briefly introduce my study, its background, the setting and the motivations for carrying it out. I will begin by describing my role as a teacher of English in an agriculture college in Portugal and the position of English academic work within the college. Next, I will outline how my own teaching experience led me to be interested in academic reading in English because this posed a problem both for students and lecturers at the college. I will then explain how, because of this concern, I looked for ways to address this reading problem and give the reasons why I chose to investigate an awareness-raising approach to second language (henceforth L2) instruction. In the final section of this chapter, I will describe how the remaining chapters of this thesis are structured.

1.1 Contextualisation of the present study

The present study takes as a starting point my work situation as a non-native speaker (henceforth NNS) teacher of English in the College of Agriculture of the Polytechnic Institute of Castelo Branco in Portugal (henceforth college) where I have been working since 1989. In the college, English courses are included to support other subject courses, that is, English is only ‘a “carrier” subject’ (Kennedy 2001: 25): all subject courses are taught and evaluated in Portuguese, as is the case in most tertiary education institutions in Portugal. These compulsory English courses are offered in 1st year, and in a few cases in 2nd year, to allow students to use English as a tool to gain access to a wider range of academic textbooks and scientific information during their undergraduate studies. However, my own experience of teaching English made me feel that one- or two-semester English courses were not enough to meet students’ needs during their studies.

Moreover, although reading is the skill most called for within the academic work of the college, the emphasis in the English courses is mainly on general language improvement
since most students come to the college with only a very limited knowledge of English. As a result of this, most students avoid reading in English at all costs even though subject lecturers provide reading lists which include references to English texts. However, in the final year of their studies, many students are ‘compelled’ to read in English for their degree project report because a number of relevant academic texts exist only in English. I am aware that many students experience problems at this stage because of the frequent requests for advice about English academic texts which I receive from students in the final year of their studies. Put differently, students struggle to do their academic work and, in many cases, they are not capable of doing it properly.

Lack of competence in English is not only a problem for students. For subject lecturers it is even more necessary to read in English in order to gain access to scientific information and participate in dialogue and debate within their disciplines. Some of these lecturers also face difficulties when reading (and writing) academic English, either because they studied another L2 – usually French – for a longer period than English at secondary school or simply because their proficiency in English is limited. In fact, even before my study was planned, these lecturers had repeatedly asked for an English course which could not be organised because of constraints on time and money.

Thus, my concern about the difficulties encountered by these two groups of L2 readers of academic English made me consider how their reading could be improved. My perception was that there was a real need to develop additional English courses at the college. It seemed to me that these courses should focus on academic and scientific writing because both students and lecturers need to read academic texts in English, which has become the preferred medium for the dissemination of academic knowledge world-wide. The need to address this problem stimulated my interest in the theory, research and practice of teaching reading and writing as ‘teachers [...] need both a sound grasp of practical matters, and an educated framework [i.e. theory] on which to base and evaluate their methods’ (Urquhart and Weir 1998: 234) and led me to consider ways in which I could explore this issue in my own work situation. Hence, I became particularly
interested in developments in English for Academic Purposes (henceforth EAP) and English for Specific Purposes (henceforth ESP) and the implications of this EAP/ESP related research for L2 instruction. I also twice visited the Institute for Applied Language Studies, University of Edinburgh (1996, 1998), where I attended summer courses which drew my attention to particular features of academic discourse and made me reflect on possible ways of changing and improving my teaching practice. The opportunity to study my own teaching methods presented itself when the college where I work offered me a sabbatical and the Foundation for Science and Technology (Portuguese Ministry of Science and Higher Education) within the Programme PRAXIS XXI and the European Social Fund within the III Programme of Community Support sponsored a joint scholarship to do a PhD.

Having identified the difficulty which both students and lecturers at my college experienced when reading academic English, I wished to deepen my understanding of the nature of the problem and, if possible, find ways of addressing it which would allow me to bring about improvements both in students’ and lecturers’ understanding of English academic texts and my own teaching practice. In order to research my own teaching, I decided to design and teach a course which combined insights from reading and writing research and instruction in EAP/ESP, language awareness (henceforth LA) and reading theory. The aim of this course would be to test whether the reason for the reading difficulties was lack of LA. However, I was interested not only in coming to a deeper understanding of whether L2 readers would benefit from this type of instruction but also in finding out about variations between different kinds of reader/learner (i.e. students and lecturers). My reasons for choosing an awareness-raising approach are described in the following section.

1.2 Why an awareness-raising approach?

As mentioned above, the English courses taught during the first and second years of study at the college with the main focus on general language improvement were not
sufficient (or totally satisfactory) as far as academic reading was concerned. This teaching not only needed to be complemented with more L2 reading instruction but also required a new approach to texts. Therefore, at the outset of this study, drawing on what I had read about EAP/ESP, reading theory and LA, I considered three different pedagogical approaches as possible conceptual frameworks for instruction: a reading strategies approach; a graded reading scheme; and an awareness-raising approach.

The reading strategies approach was discarded on pedagogical grounds. While both lecturers and students were proficient L1 readers (i.e. general Portuguese reading), only the lecturers were competent academic readers. Hence, this approach did not seem appropriate as it focuses more on the reading process and I felt that participants' difficulties were likely to be mainly due to lack of knowledge and/or awareness of genre, the rhetorical structure and particular linguistic features of academic or scientific English.

The graded reading scheme would have allowed a more individualised learning process, in which it would have been possible to address the personal needs of participants in the research (i.e. individual process of reading) as individual reading skills developed. However, this approach would not have been either possible or adequate. First, it would involve a loss of peer-peer and teacher-student interaction in the lessons. Second, given the limited duration of the course (18 teaching hours), it would not allow enough practice to obtain meaningful results. Finally, writing the materials for such a course would have been very time consuming and not feasible within the timescale of the sabbatical leave I was granted.

I therefore concluded that the third pedagogical approach, an awareness-raising one, was the most suitable one for the present study. There are two reasons for my choice. First, in my experience agriculture students prefer an approach to language and textual analysis that draws upon concrete points taught, if possible, in an explicit, objective, rational way. In addition to my teaching work, my situation as an L2 learner of English also
contributed to this choice. That is, the difficulties I myself face as a NNS led me to seek ways of increasing my own knowledge and awareness of English (e.g. reading the literature or attending courses). Because an improved awareness of both genres and textual features has facilitated my own understanding of academic texts, I thought my students could benefit from a similar increase in awareness. My view that text consciousness-raising activities in academic language courses which focus on both the macro- and micro-structure of texts can be beneficial is supported in the literature (e.g. Celce-Murcia and Olshtain 2000: 230; Swales 1990: 213-215; van Lier 1996: 69). Although the awareness-raising approach has already been used in academic writing courses (see e.g. Swales and Feak 2000), there seemed to be a 'need for language awareness and attention to language and genre form' in 'L2 reading instruction and curricular planning' (Grabe and Stoller 2002: 66; see also Carrell and Grabe 2002: 248). There is, therefore, as far as I am aware, a need for studies which apply an LA approach to L2 reading instruction. Furthermore, as far as the present study is concerned, this approach could be adapted to accommodate the institutional context, the constraints on time and participant availability, the mixed proficiency level of the participants and their relative heterogeneity in terms of scientific background. Finally, if an LA approach proved to be beneficial for participants, it could also be easily incorporated into future courses in the college.

Grabe and Stoller (2002: 126) also point out in relation to L2 reading that 'the gap between research and relevant implications for instructional practices is real' and the 'connection between research and instruction needs to be strengthened'. Hence, because this study was carried out in my normal work situation following both the normal conventions of Portuguese academic life and the pre-existing social realities and routines of my college, it also aims to contribute to bridging this gap between reading research and teaching practice. Moreover, it has also been suggested in the literature that there is 'lack of information or research into the learning culture of universities in Portugal' (Mavor 2001: 184) and that research on the teaching of English at tertiary education
level in Portugal, in particular, is scarce (Mavor and Trayner 2001: 347). Therefore, this study also seeks to contribute to filling this gap.

1.3 Outline of the thesis

The remaining chapters of this thesis are organised as follows. In Chapter 2, I contextualise my study in relation to my work situation and constraints on the teaching of English in my college. The college situation is then related to the case of English within the teaching of foreign languages in the European Union (henceforth EU).

In Chapter 3, I review the literature on current theory, research and practice in the four different areas on which the present study draws – reading models, EAP/ESP, reading and writing within EAP/ESP and LA – showing how they influenced both the choice of pedagogical approach and the topics for the reading course.

In Chapter 4, I present the conceptual framework on which the present study is to be founded. I explain first how I set out to investigate my own teaching practice and how I position myself in this study – as a practising teacher who set out to research her own teaching. Then, I discuss the rationale and the research ideology behind the LA reading course I designed. Next, I address the issue of research methodology and suggest that this study can be described as a case study, which combines quantitative and qualitative methods. I also present both the original research questions and those that emerged in the process of data analysis outlining how the latter led to a shift in emphasis in the study.

In Chapter 5, I describe how the study was set up and outline the rationale for and development of the course materials. The chapter also gives details of the various methods used to collect data. In the final section of the chapter, I discuss the reliability and validity of the study.
In Chapter 6, I look at the academic environment in the college and at various aspects of the classroom context. I also give details about the participants including myself as teacher-participant-researcher. I conclude the chapter by analysing some aspects of teacher-participant interaction.

In Chapter 7, I present a preliminary data analysis in which I describe the tests run before (pre-tests) and after (post-tests) the teaching units. In the first section, I focus briefly on participants’ levels of proficiency in English on the basis of results obtained in a cloze test. Then I look at the other four pre- and post-tests. The chapter closes with an overview of the nine teaching units.

In Chapter 8, I describe and explore the different views of language, texts and knowledge or science held by participants and myself as course designer/teacher and I argue that these different perceptions are the result of different disciplinary cultures. First, I discuss participants’ cross-cultural understanding of academic writing and reader orientation in academic texts and how the course influenced their views. Second, I discuss two issues – different views and approaches to texts – which emerged while I was analysing the data and which point to the above-mentioned conflicting views.

Finally, in Chapter 9 I summarise the main research findings, discuss their implications for teaching, describe the changes I would make to the reading course, and put forward proposals for further research.
In the opening chapter, I introduced and outlined my study of L2 reading instruction and the effects of a language awareness-raising course on the ability of readers to improve their academic reading. This piece of research draws on the current view that language awareness is a factor in reading skills improvement.

In the present chapter, I will reflect on the socio-cultural context which informs the present study as far as the teaching of English is concerned. I will contextualise my study by relating it to the situation and constraints in the College of Agriculture and relate it to L2 teaching in Portugal. I will show that, in recent years, English has replaced French in the Portuguese educational system, which follows the EU pattern of privileging the teaching of English as L2. I will argue that this shift is directly linked to changes in the world economy and the spread of English as a language of wider communication, in particular in science and technology. Those who do not possess this skill are seriously hindered from gaining access to most information and, consequently, from progressing in their field of study and/or research. Furthermore, researchers who do not publish their work in English may possibly have it ignored by the international community (Crystal 1997a). This situation makes it necessary to attempt to find new ways of improving the academic reading of all those involved in tertiary education. In the sections that follow there is a detailed description of the teaching of English in the college within the context of foreign language teaching in Portugal. I also consider the special case of English within the teaching of foreign languages in the EU.
2.1 Macro context: teaching of English

I use the term macro context to refer to the background environment that informs my study, i.e. English language education in the institutional context < language education in the Portuguese state educational system < language education policies and language use in the EU, which relates to the prospects of the students and indirectly influences the particular groups under study. This view of macro context extends, to a certain extent, to social factors, what Holliday (1994: 13) describes as ‘the macro aspects of social context of language education’ including ‘the wider societal and institutional influences on what happens in the classroom’. In this chapter I will consider more global issues while in Chapter 6 the focus will be on local issues (i.e. the classroom context).

2.1.1 The College of Agriculture and the Portuguese education system

In Portugal, the Ministry of Education determines the education policy through a ministerial department. This department co-ordinates and plans management for all educational levels. However, tertiary education institutions are pedagogically and scientifically autonomous (Eurydice 2001a).

In the Portuguese educational system foreign language teaching starts in the second cycle of basic education\(^1\) (i.e. 5\(^{th}\) and 6\(^{th}\) years of schooling) with one compulsory foreign language which is taught for four hours per week. Formerly French was the first compulsory language, but now pupils can choose either French, English or German. The previous situation reflected the status of the French language in Portugal. Firstly, it was considered the most prestigious international language and, secondly, French culture had a strong influence on Portuguese academic life. This situation has gradually been reversed over the past twenty years in favour of English, although French stills plays an important role in the humanities. However, there are slight variations in foreign language teaching within the country. It seems to be the case that pupils in larger towns (such as Lisbon and Oporto) choose English at an earlier age than pupils in smaller towns in the interior. On this issue the Eurydice report states:
The Ministry of Education does not follow a policy of favouring any of the foreign languages on the curriculum.

The main factors that determine the choice of certain languages by pupils and families are, on the one hand, cultural tradition and affinities (in relation to French) and, on the other hand, the international situation and the status of English as a world language (the ‘hegemony’ of English is a situation common to most European countries) (Eurydice 2001b).

In the 7th year of schooling three hours per week of a second foreign language – English, French, German or Spanish – can be introduced as an optional 3-year subject (i.e. 7th, 8th and 9th years of schooling). That is, pupils can opt either for the second foreign language, or for musical or technological education. This change was introduced along with a number of other reforms, which were gradually implemented in the school year 1994-95. In the pre-reform system the second language was compulsory from 7th to 9th year. The present choices are English, French, German and Spanish (Eurydice 2001b).

In secondary school (i.e. 10th, 11th and 12th years of schooling) all pupils on general courses continue with the first foreign language as one of their core compulsory subjects through the 10th, 11th and sometimes also the 12th years of schooling. However, only a small number of students enrolled at the college had studied a foreign language in their 12th year (until the academic year 2001/2002). In secondary school, pupils are divided into four ‘agrupamentos’ depending on the areas of study chosen and this will determine whether they are taught one or more foreign language(s). In some cases the second foreign language will be compulsory (i.e. in the field of economics and social sciences) and in the humanities courses a second language is compulsory and a third language may also be introduced (Eurydice 2001b). In technical and vocational secondary education, pupils also study a foreign language as one of their compulsory core subjects (Eurydice 1999a). To sum up, students enrolling at the college have normally studied at least one foreign language.
In fact, most students entering the college have studied English\(^4\) for a varying number of years (usually ranging from three to eight), but their proficiency seldom corresponds to what is expected from secondary school syllabuses. Their difficulties in English range from linguistic deficiencies (such as lack of vocabulary and grammatical accuracy) to skills deficiencies and lack of knowledge of the rhetorical organisation of texts. It should also be mentioned that most of the best students in the country opt first for universities in larger towns. The geographic location of the college (in the interior of the country) means that it does not attract students with better examination grades.

Two related factors contribute to the difficulty some students have in perceiving the immediate need and usefulness of learning a foreign language. Firstly, unlike most countries in the world Portugal is virtually monolingual (Paulston 1988a: ix)\(^5\) although, because of an influx of immigrants in recent years, other languages are used too\(^6\). This fact does not help to foster in students either the desire to learn a foreign language or the perception of an immediate need to do so. When they finally start realising that English can help them to achieve their academic goals (i.e. 3\(^{rd}\) to 5\(^{th}\) years of their course), there are no longer courses available at the college. To illustrate this point, it should be mentioned that the students have to write a research project during the final year of their studies. In order to write this research project, many of them should read at least some of the literature in English, even if many of them have managed so far to avoid it. In other words, some students feel the need to improve their English in the final years of their higher education studies (cf. felt needs, i.e. needs derived from the students and which correspond to cognitive and affective factors (Robinson 1991: 8; Dudley-Evans and St. John 1998: 123)). Secondly, Spain, where romance languages are also spoken (Galician and Castilian on the borders with Portugal), is Portugal’s only neighbouring country. Galician and Castilian are fairly easy to understand for many Portuguese. The fact that there is no immediate need to use a second language, may contribute, although indirectly, to a certain lack of motivation to learn English. This is aggravated both by the fact that English is a compulsory course, and by students’ awareness that they have a chance of
passing academic subject examinations even without reading academic texts in English.

Or as Robinson points out (1991: 82):

In many parts of the world, university students, for example, may not see the value of their ESP course, perhaps because they did not choose to study their specialism or because they know they can in fact pass their subject examinations without a knowledge of English. Very often, university EAP courses are at the start of the student’s university career, and the student may not appreciate the value of the course until much later.

In addition to the 1st year compulsory English course, an optional course should be offered in 4th and/or 5th year to those students who really read English academic texts. This will be further discussed in Chapter 9. This view is supported by some EAP practitioners such as Dudley-Evans and St. John (1998: 149) who believe there is a strong case for running components of EAP courses in the final years of higher education studies.

### 2.1.1.1 Curriculum changes at the College of Agriculture

In the past ten years, the curricula of the different courses at the college have been restructured twice for two different reasons. The first changes in the curriculum were carried out after the Ministry of Education put forward a proposal that the number of weekly teaching hours in polytechnic institutes should be reduced to approximately 25, so that students could have more time to do research. Initially English was a compulsory course both in 1st and 2nd years with a total of approximately 60 hours each year. As a result of this alteration in the curriculum, English was dropped in the 2nd year.

The second restructuring was implemented after a proposal by the college in 1998 to extend the duration of several courses (i.e. 3-year courses would become 5-year courses). This was due to the fact that in the Portuguese educational system a 3-year course awards a different degree from a 5-year course and, on the whole, both students and
lecturers wanted that change, which resulted in further reductions. This change occurred under the Education Framework Act of 1997 (Law 115/97, 19 September), the latest version of the framework law on the Portuguese education system (Eurydice 2000). At present, four courses are allotted 45 hours in one semester and two courses are allotted 60 hours in two semesters (one of these last courses has not yet been restructured).

As each university or polytechnic institute has pedagogical autonomy there is not a national policy for the teaching of foreign languages in higher education. To sum up, other disciplines have been considered more relevant for the curriculum of the different courses and therefore, at present, English has been allotted less time. This seems to go counter to the trend in several European countries where English plays a more important role in higher education and, in some cases, is even used as a medium of instruction (Crystal 1997a; Phillipson and Skutnabb-Kangas 1997; Kennedy 2001).

2.1.1.2 Present situation

Although the English course is compulsory for all students irrespective of the degree they take, there is a difference in the number of semesters and in hours per semester. Four degree courses have one semester of English (45 hours) and two have two (30 hours each, giving a total of 60 hours). Until the academic year 2002/2003, students were divided into groups according to levels of proficiency. Unfortunately, this had to be abandoned due to students’ decreasing levels of proficiency and timetable constraints. Hence, at present there is only one level – intermediate. The emphasis is on general language improvement since there are many language deficiencies to be overcome. It is therefore not possible to devote lessons exclusively to reading instruction. In fact, reading activities often focus on language system rather than reading skills instruction, a choice which is deliberately made because of the low level of proficiency in English. Moreover, in their first year, students are neither aware of their future academic needs nor motivated to find out how Academic/Scientific English differs from General English.
In addition, I hear repeated complaints from colleagues that most students avoid reading in English at all costs\(^1\). As one lecturer commented in the pre-course questionnaire: ‘As far as question 10 is concerned [i.e. ‘In which languages are the references on your reading lists?’] at present I recommend few books in English due to the fact that students show both difficulty and no interest in such books. It should be noted that this happens despite the fact that in the ESACB [i.e. college] library there are publications of great interest for the courses taught’ (Pre-CQ L5: Q26 – my translation)\(^12\).

### 2.1.2 Lecturers at the College of Agriculture

The lecturers’ situation differs from that of the students. Because many of them have been learning English for only three years but need to read in English for their academic work, they are highly motivated to learn it (for further details see below 5.1.1 and 6.3.2). This pattern in lecturers’ English education and learning is illustrated by the following extract from a lecturer’s interview:

[...]

my education in English, and maybe it’s important to refer that, [my education in English] is very reduced, I only learnt English for three years from the 7th to the 9th years of schooling and my mark was always D ((Laughs)) Therefore, in a way, I’m a good example in this... this... I’ve always been more francophone than anglophone and I obviously like French better than English, in terms of the language, in terms of the culture I’ve always felt closer to those types of countries but... partly due to the obligation that I’ve had to read English, initially from the technical and scientific point of view, I’ve managed to get those solid bases or at least solid enough to be able to read, I can read and listen, and I can understand English well, even spoken English aah... [...] (Int.

L5: Q2.4 – my translation and emphasis).

This will be further discussed in section 5.1.1. In fact, some colleagues have repeatedly asked for an English course in the past. At that time, there were financial and time constraints, amongst others, which prevented the implementation of such courses. This interest of lecturers in learning English is directly related to the present situation in academic discourse described by Kennedy (2001: 31):
Because so much academic discourse is conducted through the medium of English, whether in journals, at conferences or through the Internet, academics will need a competence in English, if they are to keep up with developments in their field, ensure that their own work is available to their colleagues internationally and interact with each other.

2.2 The European Union

The aim of this section is to give an overview of some of the current trends in language policy and planning in the EU and of the domains of use of modern foreign languages in Europe, focusing in particular on the English language. This emphasis on English is due to the fact that it seems to have become the lingua franca in Europe. Moreover, English is of particular relevance to the present study as both the students and the lecturers who attended the course I taught need to read academic texts in English and, in the case of the lecturers, possibly also to publish their research in English.

2.2.1 The European Union position on language policy

Language policy and language planning

There are a number of different conceptions in the EU of both language policy and language planning. Baldauf (1993/1994: 83) has defined the former term as representing 'the decision-making process, formally stated or implicit, used to decide which languages will be taught to (or learnt by) whom for what purposes' (emphasis in the original). Van Els (1994) distinguishes three types of policy: language policy, foreign language policy and foreign language teaching policy. The first type is similar to Baldauf's definition: 'Language policy may regulate the position, the use, or the preservation of a nation's indigenous language(s) and/or dialects' (van Els 1994: 60). The second category refers to how the foreign language(s) is/are used within the country (such as the use of a non-indigenous language in court). The third refers to how the teaching of foreign languages is organised in a particular country, that is, it answers questions about what, how and subject to which conditions languages are taught. More
recently Phillipson and Skutnabb-Kangas (1997: 116) have proposed a broader and more detailed definition of language policy, one more concerned with citizens’ rights:

*Language policy* is a broad over-arching term for decisions on rights and access to language and on the roles and functions of particular languages and varieties of language in a given polity. Such policies, and the decisions that underpin them, may be more or less overt or covert. [...] Language policy is concerned with language matters at the collective level, whether statal, supra-statal or sub-statal. Language policy is a super-ordinate category, within which fall operational concerns such as language planning and, as one form of normative regulation, language legislation. Both of these exemplify the more centralistic, government-induced or government-controlled aspects of language policy.

According to Baldauf (1993/1994), language planning means to implement the language policy, as far as possible, in the different domains of language use which are mentioned in it. Fishman, by contrast, considers that language planning at a national level is characterised by:

[...] the authoritative allocation of resources to the attainment of language status and language corpus goals, whether in connection with new functions that are aspired to, or in connection with old functions that need to be discharged more adequately (Fishman 1987 quoted in Adams and Brink 1991: 7).

Kaplan (1993/1994: 4) does not accept definitions which limit language planning to the management of ‘one particular kind of linguistic modification’ in a particular community at a particular moment. He proposes a broader definition in which language planning can include a number of different languages and several modifications taking place at the same time over a set of languages which coexist in a particular environment. Thus, language planning is not necessarily confined to a single country. In fact, it may provoke a ripple effect in neighbouring countries, or even worldwide in the case of a language of wider communication such as French.
Despite these differing definitions of the terms language policy and language planning, there is also some overlap. In short, both terms refer to decisions made about the use and teaching of languages, indigenous and/or foreign, in a particular state or region. The term language planning seems to imply a possible means of implementing these decisions. The term policy will therefore be used in reference to the position of the EU, as the EU has no power to implement decisions concerning the use and/or teaching of languages in the different member states.

The European Union and language teaching

The EU not only values cultural and linguistic diversity among its member states but also encourages them to promote the teaching of the languages of these member states. A memorandum on higher education published in 1991 by the Commission of the European Communities gives priority to the teaching of foreign languages. The document encourages student mobility in order to promote contact with different cultures and languages. It further suggests that students should know two languages in addition to their mother tongue. The memorandum states that higher education institutions should require a language qualification both for entering university and when obtaining a degree. In addition, the higher education policy should also make provision for courses to extend or maintain foreign language skills both for students and staff, as well as providing the opportunity to include teaching through the medium of a Community foreign language. Finally, it suggests that lesser-used and lesser-taught languages should also be promoted (Commission of the European Communities [1991]).

The Treaty of Maastricht emphasises the importance that language planning and language education should have in the economic development of the European Community. However, its aim is not a centralised language planning for language policy at a European level. On the contrary, its policy is decentralised so that both the cultural and the linguistic diversity of each member state can be respected, as stated in the chapter on 'Education, vocational training and youth' article 126:
1. The Community shall contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action, while fully respecting the responsibility of the Member States for the content of teaching and the organization of education systems and their cultural and linguistic diversity.

2. Community action shall be aimed at:

- developing the European dimension in education, particularly through the teaching and dissemination of the languages of its Member States;

- encouraging the mobility of students and teachers, interalia by encouraging the academic recognition of diplomas and periods of study (The Treaty of Maastricht 1992: 144-145, my emphasis).

In order to attain educational mobility the European Community has introduced several initiatives which are related in some way to languages and emphasise the importance of being proficient in more than one language. Within the Socrates programme (I and II) – a community action programme in the field of education – there are four EU actions that aim to promote language learning.

- Erasmus (mobility of university students and teaching staff);
- Lingua (training in foreign languages);
- Comenius (European school education); and
- Grundtvig (adult education) (for further details see European Commission 2002).

There are also two information networks which are relevant for language learning and teaching:

- Eurydice, the education information network in Europe within Socrates, and
- Mercator, the European network for information documentation and research into regional or minority languages in education (for further details see Eurydice 2002; Mercator 2002; European Commission [n. d.]).
All these initiatives aim, directly or indirectly, to promote the development of multilingualism (Beatens Beardsmore 1993/1994). In 1995, the European Commission White Paper *Teaching and learning – towards the learning society* named five general ways of building the ‘learning society’. The fourth of these is proficiency in ‘at least two Community languages’ in addition to the mother tongue (European Commission 1995). This is seen as an essential qualification ‘if citizens of the European Union are to benefit from the occupational and personal opportunities open to them in the border-free Single Market’ (European Commission 1995). This position has been further stressed in a study published by the European Commission on the learning of foreign languages in an educational context. The beginning of the study states:

La maîtrise de deux ou plusieurs langues apparaît aujourd’hui de plus en plus comme une nécessité. L’idéal serait sans doute de former de parfaits bilingues – voire multilingues – capables d’une communication riche et complète avec des personnes de langues et de cultures différentes. Actuellement, pourtant, cet idéal est loin d’être atteint (Commission Européenne 1997: 11).

[Nowadays proficiency in two or more languages is increasingly seen as a necessity. The ideal would no doubt be to have perfect bilinguals – or multilinguals – who are able to communicate effectively with people of different languages and cultures. However, the present situation falls well short of this ideal. (my translation)]

### 2.2.2 The role of English in the European Union

English is the first among the official national languages of the world, yet in Europe it is only the official language of three countries: the United Kingdom, Ireland (official status shared with Irish Gaelic) and Malta (official status shared with Maltese) (Thomson 1988). Instead its primary influence in Europe is as an international language in areas such as business, tourism, information technology, science and technology. Truchot (1991: 90) has characterised this use of English as being transglossic, ‘[English] is superimposed on the use of other languages; it is traversal to them.’
However, English may have an even more important status in some member states (e.g. Belgium, Denmark, the Netherlands and Sweden) where its status is gradually shifting from that of foreign language to one of second language. This use of English for intranational communication is particularly noticeable in areas such as professional discourse and higher education (Graddol 1997).

Simultaneously there has also been a revival of regional or minority languages. According to Coulmas (1993/1994), at the social level of language use there are two different forces pulling in opposite directions. On the one hand, there are centripetal forces which reinforce the spread of languages of wider communication such as English or French. On the other, there are centrifugal forces which are connected with language revival, attachment and loyalty to regional languages – Gaelic, Irish, Welsh and Basque are some of the European examples. Coulmas also suggests that, at present, centripetal forces are more influential than centrifugal ones.

Baker (1996) reinforces this idea by suggesting that the increasing Europeanisation of the late 1990s gives rise to a paradox. Some languages such as English have high status and competence as they are seen as international languages. Simultaneously, there is a growing sense of rootedness in Europe, which is reflected in the increasing value people attach not only to local languages but also to local cultural communities. Baker adds that, although languages for international communication are necessary, some space should be left for the other languages, so that they can survive.

The present trend towards the choice of English in foreign language teaching policy and planning in most European countries (Commission Européenne 1997; Eurydice 1992, 1999a, 2001a; Trim 1994) is not without its critics, who cite political and/or cultural reasons. As far as language planning in Europe is concerned, Corbeil (1994) predicts two possible outcomes in the way that European language change may take place. The first is to follow unrestricted market forces, which will favour the spread and consolidation of English as a lingua franca, resulting in a language crisis in Europe. In
contrast, the second possibility, which Corbeil seems to prefer, would be a conscious attempt to organise pan-European multilingualism. He suggests: ‘Favoriser la connaissance des langues de l’Europe par une politique d’enseignement de toutes les langues européennes, en évitant la concentration sur la seule langue anglaise’ [To support the knowledge of European languages through a policy of teaching all European languages, avoiding an exclusive focus on English (my translation)]. An even stronger criticism is made by Phillipson and Skutnabb-Kangas (1997: 132-133) ‘[...] foreign language teaching in continental Europe overwhelmingly favours English – and this can be seen as desirable by English-speaking monolinguals and possibly others. This is perhaps a planetary disaster from a language ecology perspective.’

Truchot (1991) goes even further and presents a proposal for a language policy for the European Community which, in his opinion, would achieve a better balance between languages in the member states. However, his proposal appears to strengthen the French position of resistance to any reduction in the international status of the French language either within the EU or in the rest of the world (see Truchot 1991: 87-104). In short, this reflects the resistance in France to the anglicisation of world communication (Coulmas 1993/1994; Kaplan 1993/1994; Phillipson and Skutnabb-Kangas 1997; Forrest 1999).

The efforts of the French to exclude English and of the Académie Française to prevent incursions of both the English language and Anglo-American culture into France illustrates the extent of the impact of English on French. This impact of English on the lexis of different European languages is, however, an undeniable trend of which the UDASEL project (A Usage Dictionary of Anglicisms in Selected European Languages) is a result. The aim of UDASEL, which culminated with the publication of the Dictionary of European anglicisms (Görlach 2001a), is to compare the use of 3,000 English words in 16 European languages (Görlach 1997). Although the dictionary does not include Portuguese, the lexical impact of English on Portuguese is also obvious. Just a brief look at a weekly Portuguese newspaper illustrates the pervasive influence of English (especially in advertisements and the job offer section). In addition, the use of
English words, sometimes without italics or inverted commas to signal that they do not belong to the Portuguese lexicon, is common in articles in the press. There seems to be an increasing number of loan words in Portuguese, notably in areas such as information technology, business, music and tourism (Murias 1999). This trend is also illustrated in the course participants’ interviews which I carried out at the beginning of the course (for further details on the interviews see 5.3.2). It is interesting to note that a student in the interview referred to the pervasive influence of English loan words on Portuguese, even giving three examples: ‘cards’, ‘shopping’ and ‘trekking’ (Int. S17: Q2.3). In addition, in a few interviews, participants used English words, as the following examples illustrate:

(1a) ‘I believe it is a very big gap [in English in the original] that I have the fact that I don’t like reading and that I don’t read as much as I should’ (Int. L10: Q2.1 – my translation and emphasis).

(1b) ‘[…] those [newspaper articles] that really interest me I end up reading, I skim them and that’s my concern, being informed about what’s going on: who dies who is born, the sports results the rallies [in English in the original] and those things that interest me, national politics, big world conflicts, in our ex-colonies and so on, you know what I mean… That’s it’ (Int. L6: Q1.2 – my translation and emphasis).

(1c) ‘The Internet [in English in the original] also, nowadays we can browse the Internet and we find texts in English, mainly in English, that’s the most common’ (Int. S18: Q1.4 – my translation and emphasis).

(1d) ‘No, no… The text structure is almost standard [in English in the original], isn’t it? ((Laugh)))’ (Int. S4: Q3.4 – my translation and emphasis).

It should be noted that I also used the word Internet in the pre-course questionnaires, as there is no Portuguese equivalent. In two other interviews (L6 and S1) the name of the British Council was given in English instead of the Portuguese equivalent (‘Instituto Britânico’). Further examples of loan words in Portuguese are found in the homework done by one lecturer. The homework consisted of writing a summary in Portuguese of an English academic text. In the summary, L13 uses the word ‘feedback’ in the Portuguese without inverted commas, thus assuming that it is part of the Portuguese lexicon. L13
also uses the word ‘stakeholder’ in English but adds the following footnote: ‘As there is no acceptable translation in Portuguese the original term was kept. Stakeholder [in English in the original Portuguese version] can be defined as an individual or group of individuals whose lives or environment are affected by a specific project’ (5HW L13 – my translation and emphasis). Six of the nine English words used by the participants can be found in the most recent dictionary of European Portuguese – Dicionário da língua portuguesa contemporânea da Academia das Ciências de Lisboa (2001) (see Table 2.1 below)\textsuperscript{15}.

This increasing influence of English in Europe is strongly reflected in education and employment, since the knowledge of foreign languages, and in particular English, often seems to be required for certain types of job. For example, Crystal (1997a: 80-81) refers to the fact that in many European organisations English is an official language either alone or in combination with French and/or German. He adds that it is common in scientific organisations, such as the European Academy of Facial Surgery, the European Association of Cancer Research or the European Association of Fish Research, to have English as the only working language. Simultaneously, English may also play a different role in international meetings. In EU meetings, for example, it can be used in what Crystal (1997a: 81) terms a ‘relay’ system. In other words, English is used as an ‘interlingua’ or intermediary language, whenever it is not possible to translate directly from one language into another (e.g. from Finnish into Greek).
Table 2.1: English loanwords used by participants some of which have been incorporated in the Portuguese lexicon.

<table>
<thead>
<tr>
<th>Word</th>
<th>Dictionary entry in the Dicionário da língua portuguesa contemporânea (2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card</td>
<td>'s.m. (Ingl.) 1. V. retorno. 2. V. retroalimentação.' (p. 1717)</td>
</tr>
<tr>
<td>Feedback</td>
<td>'s.m. (Ingl.) V. hiato.' (p. 1866)</td>
</tr>
<tr>
<td>Gap</td>
<td>'s.f. (Ingl.) Inform. Rede informática internacional que permite, através de computador, trocar mensagens, difundir e obter informações. «A observação do mapa de cobertura mundial da internet mostra que o continente africano continua praticamente virgem» (Expresso, 12.7.1997).’ (p. 2140)</td>
</tr>
<tr>
<td>Internet</td>
<td>'s.m. (Ingl.) Desp. V. rali.’ (p. 3073)</td>
</tr>
<tr>
<td>Rally</td>
<td>'s.m. (Ingl.) Desp. V. rali.’ (p. 3073)</td>
</tr>
<tr>
<td>Rali1</td>
<td>'s.m. (Do ingl. Rally). Desp. Competição de veículos motorizados, com provas cronometradas, em que é posta à prova a perícia dos condutores e a resistência das máquinas. «O rali de Portugal terá um percurso de 2110 quilômetros» (DN, 7.1.1988).’ (p. 3073)</td>
</tr>
<tr>
<td>Shopping</td>
<td>'s.m. (Ing!.) V. centro comercial.’(p. 3408)</td>
</tr>
<tr>
<td>Stakeholder</td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>'s.m. (Ing!). V. padrão’.’ (p. 3461)</td>
</tr>
<tr>
<td>Trekking</td>
<td>-</td>
</tr>
</tbody>
</table>

1 This is the Portuguese spelling of rally which has been used, at least, since 1988 as shown in the example given from a daily Portuguese newspaper (Diário de Notícias). According to the dictionary, both spellings can be used.

2 My bold and underlining of the equivalent Portuguese expression which is also used.

Furthermore, the fact that English is widely used in a variety of different professional fields ranging from the media, press and advertising to international travel and safety and, more recently, communications in the form of the Internet, affects the European job market. Knowledge of English is increasingly seen as a prerequisite for jobs in the professional areas mentioned above. Other changes taking place in the ‘globalised workplace’ as a result of the present trends in technology and the global economy are also related to this demand for English in the workplace. Workplace organisation is experiencing what is known as a ‘process re-engineering’, i.e. ‘a process that leads to organisational changes such as “down-sizing”, management “delayering” and “outsourcing” of “sub-processes” formerly carried out in house’ (Graddol 1997: 42). As a result there is a shift towards services and ‘screen based labour’ in different economic
spheres. To emphasise this point, Graddol (1997: 35) refers to a study carried out in the EU, which indicates that 20% of working time is spent in handling documents. Within organisations or companies, English is used both in team work and service interactions. As a result, employees need to be able to adopt different language styles in English.

Because of the wide use of English in the workplace and as a medium for the transmission of knowledge the role of English in the domain of education has been strengthened in recent years. This is particularly significant in tertiary education since most academic journals aiming at an international readership are published in English (Flowerdew and Peacock 2001a: 10). The journal *Linguistic Abstracts* can be seen as an example of this current trend. This journal reviews the contents of approximately 160 journals worldwide, of which almost 70% are published only in English. In 1995, for instance, almost 90% of the 1,500 articles listed in the journal were in English (Crystal 1997a: 85; 102).

Moreover, since the 1960s, English has become the medium of instruction in various advanced courses in tertiary education in European countries such as the Netherlands and Sweden, where English has no official status. The initial reason for this was the increasing number of academic texts published in English. However, more recently, another type of pressure seems to have been influencing the choice of English – as student mobility within Europe increases, universities and colleges are frequently faced with mixed-language audiences. In addition, due to the changes in employment patterns which have already been mentioned, tailor-made education and training programmes also seem to be on the increase (Crystal 1997a).

### 2.2.3 Modern language teaching in the European Union

In this section I will give a brief overview of the teaching of modern foreign languages at primary and secondary levels in the countries of the EU. Higher education will only
be referred to briefly due to a lack of detailed information, because at this level curricula vary widely both between countries and even within particular member states.

There has been a general trend in member states towards the introduction of a foreign language at primary school level and sometimes even earlier. Belgium and Luxembourg can be considered exceptions because, having more than one national/official language, they have already made provision for teaching another language at primary level (Eurydice 1992). In countries such as Portugal and France a foreign language, usually English, is offered as an option.

In member states where there is a compulsory foreign language teaching programme at primary level this language is usually English. Countries such as Denmark, Greece, the Netherlands and Sweden are examples of this, while Luxembourg, where German is the first foreign language to be studied, is an exception (Eurydice 1999a). In general, English is the language chosen, although in some countries French can also be taught, especially in the English-speaking countries. The time allotted for teaching a foreign language at primary level may range from 2 to 8 hours per week (Eurydice 1992). The most taught foreign language at primary level is English which is studied by 26% of schoolchildren (Forrest 1999).

In secondary schools, all pupils have to learn at least one foreign language for a varying number of years. Moreover, in several member states the first foreign language is compulsory, at least in certain courses, until the end of secondary education. Belgium, France, Greece, Luxembourg, the Netherlands, Portugal, and Spain are countries which have adopted such practice. A second foreign language is compulsory in lower secondary schools in various countries such as Denmark, France, Germany, Finland, Luxembourg, Portugal and Sweden, while in other countries the second foreign language may be studied as an option in particular schools or courses. In several member states the choice of a second foreign language is limited to German, Spanish and Italian. English or French can also be a second language option if they are not the first foreign
language learnt. Finally, some member states offer the possibility of studying a third language (Eurydice 1992, 1999a, 1999b, 2001a; Baetens Beardsmore 1993/1994; Commission Européenne 1997). For example in Luxembourg, in addition to Luxemburgish, all children have to learn German, French and English and they may even study a fourth optional language – Spanish or Italian (Eurydice 2001b).

This increasing interest in learning foreign languages is illustrated by some bilingual sections at lower and upper secondary levels in Germany, and by bilingual departments in some secondary schools in France (Eurydice 1999a). In technical/vocational secondary education there is usually one compulsory foreign language and in some cases even two. A compulsory third language is more rare but it can be the case as in Luxembourg, for example, or some courses in Italy. The language choice in technical/vocational secondary education is usually more restricted: English, French and occasionally German are the most common options (Eurydice 1992, 1999a). As previously mentioned, the Commission of the European Communities encourages foreign language instruction in higher education too. The use of English is also widespread in course books and the relevant literature (Graddol 1997). In short, English is the most studied foreign language in secondary schools (Eurydice 2001b) and in 1999 it was taught to 89% of pupils, followed by French (32%), German (18%) and Spanish (8%) (Forrest 1999). Graddol (1997) suggests that this tendency is unlikely to be challenged in the near future and Truchot (1991: 91) sums up the situation in foreign language instruction in the EU: ‘English is the common denominator to all European countries, being taught everywhere as a compulsory or as a nearly-compulsory language in the educational system.’

Language planners and policymakers are paying more and more attention to the teaching of foreign, national and regional languages. This may be the result of the policy of the EU: the priority given to linguistic and cultural diversity and the promotion of the teaching of the different languages of the member states. There is also a trend towards the choice of English as the first foreign language because it has had an increasing
impact in the workplace in recent years as a consequence of its role in the world economy, technology, communications and even youth culture.

2.3 Summary

In this chapter, in order to contextualise the present study, I have described the teaching of English in Portugal and made reference to the situation in the college where I work. I have also related the situation in my workplace to the broader context of EU language policy, discussed the importance of foreign language teaching in the EU and considered the special case of English. Finally, I argue that in tertiary institutions such as the College of Agriculture, where English is an L2, there is a real need to develop reading courses because English has become an important tool for both students and lecturers/researchers, allowing them to gain access to scientific information and participate in dialogue and debate within their disciplines.
Notes to Chapter 2

1 Basic education comprises nine years of compulsory education, which consists of three consecutive cycles. The first cycle includes the first four years of schooling, which were previously called primary education (i.e. children aged six to nine or ten). The second cycle comprises the 5th and 6th years (i.e. children aged ten to eleven or twelve). Finally the 3rd cycle comprises 7th, 8th and 9th years of schooling (i.e. children aged twelve to fourteen) (Eurydice 1999b).

2 In fact, only some students who have had vocational training learn English in the 12th year. Vocational training is ‘a structure within the secondary education level created in 1983 as an alternative to complementary secondary education, and corresponding to the 10th, 11th and 12th years of schooling. It included technical and vocational courses with a three-year duration, awarding a certificate of completion of secondary education giving access to higher education, and a technical and vocational training diploma, as well as vocational training courses with the duration of one year followed by a six-month period of working experience, giving the right to a vocational training with which one could enter the active professional life’ (Eurydice 1999b). Otherwise, only some pupils from ‘agrupamento’ 4 (see below note 3) in secondary schools are given the option of learning a foreign language in the 12th year of schooling (several secondary teachers confirmed this piece of information by email).

3 On the Eurydice website (1999b) the term ‘agrupamento’ is defined as follows: ‘Set of subjects given in secondary courses which are organised in four groups, according to the scientific knowledge dominant [sic]: 1. scientific and natural; 2. arts; 3. economics and social sciences; 4. humanities.’

4 Occasionally we have older students who have never studied English.

5 In 1999, a regional minority language Mirandese was recognised as an official language. This language is spoken in the Miranda do Douro region in the northeast of Portugal (Eurydice 2001b).

6 ‘In Portugal there are also a number of other [apart from Mirandese] minority languages whose speakers are mainly of African origin, from Timor-Lorosae and from the countries of Central and Eastern Europe’ (Eurydice 2001b).

7 ‘The two higher education systems, universities and polytechnics, award the degrees of bacharelato and licenciatura. Most of the licenciaturas awarded by polytechnics are organised into two cycles, the first of which corresponding to a bacharelato degree. This two-stage licenciatura is an attractive factor in polytechnic education as the attainment
of a more vocational education is associated to the continuation of studies. These licenciaturas are awarded after 4 or 5 years of studies, whilst at universities they are awarded after 4 to 6 years of studies. The degree Bacharelato is awarded in both cases, after 3 years of studies' (Eurydice 2001a).

8 This change in the duration of courses is explained on the Eurydice website in the section on Polytechnic higher education: ‘The general regulation for cursos biétapicos de licenciatura [course taught at public, private and co-operative higher education polytechnic schools, organised into two cycles, the first conferring the right to a bachelor’s degree and the second to a licentiate degree], approved by legal diploma in 1998, established that the syllabus of each course, the allocation of the respective curricular units by years or semesters, as well as any options or branches, when such exist, be approved on a case-by-case basis’ (Eurydice 1999b).

9 On the Eurydice website it is stated that in the Portuguese educational system: ‘Each higher education establishment is responsible for its own curricular plans [...] The Statute of autonomy of ensino superior politécnico [Polytechnic higher education], approved by law in 1990, provide ensino superior politécnico schools with administrative, financial and pedagogical autonomy’ (Eurydice 1999b).

10 Until the academic year 1998/99, because of low standards of proficiency, students were divided into three levels – beginners, intermediate and post-intermediate – according both to the results obtained in a placement test done in the first week and their final marks in English in secondary school. This was changed in 1999/2000 due to lack of staff and timetable constraints. Students were then divided into two different levels – intermediate and upper-intermediate.

11 This is also confirmed by one of the students interviewed who commented: ‘Of course... when [I do projects with] colleagues who do not read in English I have to be the one to read in English, right? ([Laugh])’ and ‘[when reading in English is required] I have some colleagues who complain immediately...’ (Int. S5: Q2.1, Q2.2 – my translation). See note 13 below.

12 All the quotations that were originally in Portuguese and which I translated into English can be seen in Appendix 1. Appendix 2 shows the system used for presenting data.

13 In the companion book to the Dictionary of European anglicisms (Göralach 2001a), an annotated bibliography on the topic (Göralach 2002a), the editor explains that there was not enough evidence on Portuguese to justify a separate section on this language (Göralach 2002b: x).

30
A note in the introduction to the *Dicionário da língua portuguesa contemporânea da Academia das Ciências de Lisboa* (2001) refers to an unpublished study of the use of English words in the Portuguese press which I was unfortunately unable to access. The conclusions of this study are summarised as follows: 'In a six-year study of the main Portuguese newspapers carried out by the Academy [Academia das Ciências de Lisboa] the following data were recorded: there were approximately 1,000 written loan words, usually with their original spelling (70% of the terms were English, usually American English, 20% French, 10% of various origins)' (2001: xv – my translation).

According to Görlach (2001b: xvii) '[t]he European languages are likely to become more similar to each other in due course [...]' This trend seems to be underway already. The comparison of English loanwords used by the course participants with entries in the *Dictionary of European anglicisms* (Görlach 2001a) illustrates this. That is, 8 out of the 9 loanwords participants used have an entry in this dictionary:

<table>
<thead>
<tr>
<th>Word</th>
<th><em>Dicionário da língua portuguesa contemporânea</em></th>
<th><em>Dictionary of European anglicisms</em></th>
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<tr>
<td>Card</td>
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<tr>
<td>Feedback</td>
<td>1717</td>
<td>112</td>
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<tr>
<td>Gap</td>
<td>1866</td>
<td>130</td>
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<tr>
<td>Internet</td>
<td>2140</td>
<td>164</td>
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<tr>
<td>Rally</td>
<td>3073</td>
<td>253</td>
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<tr>
<td>Shopping</td>
<td>3408</td>
<td>281</td>
</tr>
<tr>
<td>Stakeholder</td>
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<td>-</td>
</tr>
<tr>
<td>Standard</td>
<td>3461</td>
<td>303</td>
</tr>
<tr>
<td>Trekking</td>
<td>-</td>
<td>330</td>
</tr>
</tbody>
</table>

The degree of acceptance in the different countries varies between full acceptance and restricted use.
3. Literature review: reading models, English for Academic Purposes/ English for Specific Purposes and Language Awareness

In the previous chapter, I discussed the socio-cultural context which informs this study in relation to the teaching of English in the college, in Portugal and in the EU. In this chapter, I will position my study in relation to current theory, research and practice in the four different areas:

- reading models;
- EAP and ESP;
- reading and writing within EAP/ESP; and
- LA.

The chapter is divided into four main sections. In the first and second, there is a detailed discussion of reading models which have had a strong influence on the teaching of L2 reading. In the third I offer a summary of practice and research in EAP and ESP, making reference both to a pilot contrastive study, which I carried out in an attempt to decide which topics would be suitable for the reading course, and to the actual selection of the course topics. The chapter closes with a discussion of LA within L2 teaching and research and its relation to this study.

3.1 Reading models

Researchers have been increasingly interested in reading in English both in L1 and as a second and/or foreign language (L2) and have developed models and theories which have had a major impact on reading instruction.
In this section I will give an overview of a number of models of reading, some of which were developed for English as L1 and later adopted and/or adapted for English as a L2. These models are usually grouped according to three metaphorical designations: bottom-up, top-down and interactive. I will start by outlining the first two models, which are also known as linear information processing models. Next, two interactive models both of which are based on research into word recognition processes will be considered in more detail: Rumelhart’s interactive activation model and Stanovich’s interactive compensatory model. Other interactive models will also be referred to briefly. Finally, the schema theory or schema-theoretic model of reading, another type of interactive model, will be described, as it has important implications for the study of L2 reading.

3.1.1 Bottom-up and top-down processing models

In the context of research into the reading process, a model can be defined as:

[...] an imagined representation of the reading process that not only provokes new ideas about reading but also provides a paradigm against which aspects of the reading process may be tested (Barnett 1989: 10).

According to Samuels and Kamil (1988), models can be considered good if they have three major characteristics. Firstly, they should be able to summarise the past, that is, to synthesise data previously collected. Secondly, models should facilitate the understanding of the present. Lastly, they should be able to predict the future in the sense that they allow us to put forward hypotheses which can be tested afterwards. Thus, the results obtained in research allow us to determine the validity of models.

In the approaches of the late 1960s and early 1970s reading was viewed as the bottom-up processing of a text, i.e. reading was assumed to be a passive activity based on the process of decoding individual linguistic units such as phonemes, graphemes, words and clauses. In other words, the reader derived meaning from the printed stimuli. Initially, the reader recognised letters, words, sentences of the text (the incoming data), and by
processing this information to higher-level stages he/she would finally reconstruct the meaning of the text. In these models reading was, therefore, seen as being data-driven. Examples of such accounts of reading are Gough’s model based on eye fixation research published in 1972 (Samuels and Kamil 1988; Carrell 1987; Barnett 1989) and LaBerge and Samuels (1974) theory of automatic information processing in reading (Samuels and Kamil 1988; Carrell 1987; Barnett 1989).

According to these models, reading comprehension and reading problems were related to language decoding skills. This view had implications for L2 reading instruction in that the teaching focused primarily on the language itself as a way of obtaining meaning; that is, the teacher would try to facilitate and develop language proficiency (Nunan 1985).

However, the bottom-up models, also known as serial-stage models of reading and word recognition, presented several problems when researchers attempted to explain the reading process. These included difficulty in accounting for sentence-context effects (i.e. how the sentence in which the word is integrated may influence the process of word recognition and text comprehension) and the role of background knowledge of the content area of the text in helping to recognise and to understand words (Stanovich 1980; Samuels and Kamil 1988). As they did not account for the reading process in a satisfactory way, other models, termed top-down because ‘higher-level processes interact with, and direct the flow of information through, lower-level processes’ (Stanovich 1980: 34), were developed based on Goodman’s model of reading. Although Goodman's (1970, 1975) model was developed for proficient readers of English, it claimed applicability to all languages and other levels of reading proficiency, i.e. there is a single reading process. Goodman presented reading not only as a receptive language process but also as an active process called a psycholinguistic process due to the constant interaction between thought and language. Reading is, therefore, placed in a wider context of communication where the reader seeks and constructs meaning as he/she processes the information. Thus, Goodman offered a different view from the previously mentioned serial-stage models of reading:
Reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader’s expectation. As this partial information is processed, tentative decisions are made to be confirmed, rejected, or refined as reading progresses. More simply stated, reading is a psychological guessing game. It involves an interaction between thought and language. Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are right the first time. The ability to anticipate that which has not been seen, of course, is vital in reading (Goodman 1967: 498).

This psycholinguistic model emerged as a reaction to what Goodman considered a misconception of reading based on naïve common sense which supported a serial processing view of reading in which meaning was seen as being cumulative. Contrary to the view that reading was a precise process in which the reader perceived and identified sequentially all the linguistic elements or graphic stimuli, which would be subsequently decoded little by little, Goodman suggests that the reader selects only a few graphic cues which will allow him/her to guess, anticipate or predict what will come next in the text. In this psychological guessing game, three components are simultaneously, manipulated – previous experience, language and thought development. This will allow the reader to make guesses based on previous knowledge without much conscious effort, i.e. through an automatic and intuitive process of decoding printed stimuli (Goodman 1967). Three types of information are used simultaneously to make predictions – graphic or graphophonetic, syntactic and semantic (Goodman 1967, 1970). The reader samples graphic, semantic and syntactic cues which allow guesses to be made and can then verify whether a choice is acceptable. If the hypothesis is not confirmed, he/she will have to go back to check the information in the text. In order to explain how information is processed, Goodman (1975) describes five processes, which take place in brain. There is an initial recognition-initiation, which takes place at the beginning of the reading process when graphic stimuli are recognised. Next, comes prediction when the reader makes guesses. Thirdly, confirmation of prior predictions or hypotheses is sought. If these predictions are disconfirmed or somehow inconsistent, he/she tries to correct them (correction process). Finally, termination takes place when the reading task is finished.
Moreover, the reader structures the incoming message at the level of syntax or grammar; prior experience; and increased conceptual development – semantic information is organised into concepts and conceptual structures (Goodman 1967, 1970, 1975). Samuels and Kamil (1988) suggest that there is a preference in Goodman’s model for the existing syntactic and semantic information rather than the graphic information displayed in the text. Furthermore, Carrell (1987) argues that Goodman’s model tends to consider the background knowledge that the reader brings with him/her when reading a text to be predominantly linguistic, i.e. graphic, syntactic and semantic.

In the 1970s research based on the psycholinguistic model of reading using miscue analysis, an analysis of oral reading, had a great impact on views of the reading process, especially that of children in L1. Miscue analysis compares the observed responses (i.e. errors or unexpected responses) with those expected from a subject who is reading a written text aloud. Since this model emphasised the universal features of the reading process, as well as the possibility of transferring strategies used in L1 to L2, it also had significant pedagogical implications for the reading of English as L2 (Devine 1988). However, Alderson (1984) analysed some empirical evidence about L2 reading problems which suggests that there is not a strong relationship between reading ability in L1 and that in L2. He found that L2 reading problems might be caused either by inadequate knowledge of the target language, especially for students with low L2 proficiency, or by poor reading ability.

Although it was claimed in the two earlier models, i.e. the bottom-up and top-down modes of processing, that information was mainly processed in a linear way, there was seen to be a difference in the processing direction. On the one hand, bottom-up processing begins with printed stimuli, that is, the physical text on the page. The reader processes individual sounds, words, clauses, sentences (i.e. individual linguistic units) in a sequential way up to the higher-level stages when he/she will reconstruct meaning. Because this process is basically concerned with the incoming data and focuses on decoding linguistic forms, it is viewed as being data-driven. On the other hand, the top-
down processing approach starts at the higher-level stages with general hypotheses and predictions and seeks confirmation or refutation of those hypotheses and predictions in the incoming data. The theory also assumes that good readers will predict more due to the importance of contextual information at all levels of processing in reading (Stanovich 1984). Thus, the focus in top-down processing is on reconstructing meaning from the higher levels (reader’s previous knowledge, experience and conceptual expectations) to the lower levels (the written text itself). In this case, the reading process is called conceptually-driven (Carrell 1983, Carrell and Eisterhold 1983; Samuels and Kamil 1988).

Each of the above models has different implications for teaching. A teacher using a bottom-up approach to reading is mainly concerned with language proficiency and concentrates his/her teaching on the linguistic system as a way of reconstructing meaning, whereas a teacher using a top-down approach focuses on whole texts, paying attention to the content and encouraging the students to use their previous knowledge and experience to reconstruct meaning (Nunan 1985).

Both models have several shortcomings. A criticism made of the bottom-up models was that reading would become an extremely slow process if the reader had to decode every single linguistic unit in the text and, might consequently even forget information previously read (Nunan 1985). As noted above, Samuels and Kamil (1988) mention the problem of lack of feedback in the bottom-up processing model since it cannot explain how sentence context and background knowledge help in recognising and understanding words. Moreover, Stanovich (1980) points out that these models do not explain some results obtained in empirical reading research, for instance word, syntactic and semantic context effects, because bottom-up models cannot account for interaction with higher-level processes.

On the other hand, the top-down model of processing has drawbacks too. It was criticised because it does not explain the reading ability and possible interpretation(s) of
a text made by a reader who cannot form hypotheses or make predictions about the text because of limited topic knowledge. Likewise, it does not account for efficiency in fluent reading, i.e. although a reader is able to make predictions about the text he/she will not do it frequently since individual word recognition is easier and less time consuming than making conscious predictions (Stanovich 1980; Samuels and Kamil 1988). In the same way, top-down models were criticised for assuming that poor readers read slowly because they do not use contextual information in the text. Stanovich (1980, 1981) suggests that, on the contrary, poor readers tend to use context as much or even more to facilitate word recognition, but they read more slowly because they fail to integrate comprehension of larger units of text.

Due to these deficiencies in unidirectional models, which could not account for the results obtained in the empirical studies noted above, researchers sought alternative explanations of the reading process and new models were developed – the interactive models of reading.

3.1.2 Interactive models of reading

3.1.2.1 The term interactive

Before considering interactive models, it is important to discuss the different meanings of the term ‘interactive’: when used in reference to reading models, in relation to L1 and L2 reading, and in research on written texts. Definitions vary from researcher to researcher. Grabe (1988) considers three different senses in which this term is used:

- the relationship between the reader and the text;
- the process relationship between various component skills and stages in reading; and
- the features of the text itself.
In the first case reading is considered an interactive process between the information the reader brings to the text and the information conveyed by the text. The text activates the process of bringing background knowledge to the text. The term is used in this sense in psycholinguistic models of reading. Secondly, when referring to interactive models of reading, the term denotes the relationship between skills operating at different levels, i.e. bottom-up and top-down. Finally, the term can be used in research on written texts to refer to the interactive nature of the text itself, that is, to the combination of linguistic elements used by the writer to form a text. To sum up, in the first use of interactive it refers to the interactive process of reading or text-reader relations. In the second, it means the interaction of the different component skills in interactive models of reading. In the last, it focuses on the form-function interaction of a text, in other words, the 'textual interaction' (Grabe 1988: 65)

Interactive models differ from unidirectional models because they assume that both the higher and lower level strategies used in the reading process are simultaneously available and interact with each other. They can, therefore, account for results in research on word recognition which the previous linear models could not. As mentioned previously, I will discuss two of these models in more detail. I will start with Rumelhart’s (1976) interactive activation model and will then describe Stanovich’s (1980) interactive compensatory model.

3.1.2.2 Rumelhart’s interactive activation model

Rumelhart (1976) proposes an interactive model based on research on word recognition processes, to explain the role of context during reading. ‘Interactive’ here means processing among the component skills and stages in reading, which corresponds to the second meaning of the term according to Grabe. In Rumelhart and McClelland’s view ‘an interactive model is one in which data-driven, bottom-up processing combines with top-down, conceptually driven processing to cooperatively determine the most likely interpretation of the input’ (1981: 37).
This model attempts to account for some occurrences in reading which are not explained by the previous unidirectional models. These five different types of occurrence show that orthographic, syntactic, semantic, and lexical information can affect word perception. The first type of observation is that a reader is able to identify more letters in words in a given time, than letters in a random sequence. In the same way, a sequence of unrelated letters which follows the rules of English spelling will be more easily apprehended than letters in a random sequence that do not follow those rules. That is, the perception of letters frequently depends on the surrounding letters. Secondly, it was observed that syntax influences word perception. For example, if a reader makes a word recognition error, often the word that replaces the original one maintains the same part of speech. The third category of observations is that semantic knowledge has an effect on word perception. For instance, if a reader has to make a lexical decision about a pair of words, the decision will be more rapid when the pair of words are semantically related (e.g. bread-butter or doctor-nurse) than when they are not related (e.g. bread-doctor). Another observation relates to the perception of syntax – a given word is apprehended differently depending on the semantic context in which it is embedded. For example, in the following two sentences ‘The children are eating apples’ and ‘The juicy red ones are eating apples’ (Rumelhart 1976: 16), semantics affects the perception of syntax, in that ‘eating apples’ has a different meaning in each sentence. The last type of observation refers to semantic information in the sense that the way a word is understood depends on the surrounding text segment (Rumelhart 1976).

According to Rumelhart’s interactive activation model, different sources of knowledge both sensory and non-sensory (syntactic, semantic, lexical and orthographic information) will, simultaneously, bring data into the ‘message center’ (Rumelhart 1976: 22). The data, or graphic stimuli, are provided to the ‘message center’ where hypotheses from the different ‘knowledge sources’ are considered (i.e. ‘featural knowledge’, ‘letter level knowledge’, ‘letter cluster knowledge’, ‘lexical level knowledge’ ‘syntactic knowledge’ and ‘semantic level knowledge’) (Rumelhart 1976: 22, 29-32). This ‘message center’ is a mechanism which has various functions: it can receive the sources of information
referring to the text which is being processed; it can retain the information temporarily; and it can forward the information whenever necessary as each of the ‘knowledge sources’ can process information from more than one of the other sources.

In other words, the ‘message center’ allows communication and interaction between these knowledge sources and other knowledge sources (i.e. higher-order stages). The higher-order stages can, therefore, have an effect on the processing of the lower-order stages. Thus, text processing and comprehension will be facilitated (Rumelhart 1976; Samuels and Kamil 1988; Barnett 1989).

3.1.2.3 Stanovich’s interactive compensatory model

Stanovich was first attracted to Rumelhart’s model because it assumed, like other interactive models, that ‘a pattern is synthesized based on information provided simultaneously from several knowledge sources (e.g. feature extraction, orthographic knowledge, lexical knowledge, syntactic knowledge, semantic knowledge)’ (Stanovich 1980: 35, 1981: 246-247 – emphasis in the original). However, this theoretical alternative seemed incomplete and he supplemented it with what he termed the ‘compensatory assumption’ (Stanovich 1980: 36). This notion that ‘a process at any level can compensate for deficiencies at any other level’ (Stanovich 1980: 36) became the key concept of his model. For example, if a reader has problems in decoding the graphic stimuli (i.e. in the lower-level process) at an early stage, he/she will try to compensate for this deficit by using another source of knowledge (i.e. from a higher-level process). Stanovich’s model can be considered interactive because any stage of the process can interact, at any time, with any other. At the same time, it is compensatory because, if a reader is weak in using one reading strategy (i.e. in one process level), he/she can rely on another one as a source of knowledge to compensate for the deficiency. Stanovich (1980: 32) summarises as follows:
Interactive models of reading appear to provide a more accurate conceptualization of reading performance than do strictly top-down or bottom-up models. When combined with an assumption of compensatory processing (that a deficit in any particular process will result in a greater reliance on other knowledge sources, regardless of their level in the processing hierarchy), interactive models provide a better account of the existing data on the use of orthographic structure and sentence context by good and poor readers.

This model helped to account for differences between poor and good readers and findings in empirical research, which differed from the assumptions of top-down models that failed to account for fluent reading. Stanovich argues that distinguishing between two types of contextual processes, or context effects, may help understanding of individual differences in the development of reading fluency. These contextual processes are the use of bottom-up processing for word recognition on the one hand and higher-level interpretation of texts on the other hand. The former speeds the ongoing recognition of words during the reading process while the latter facilitates understanding and memorising the text (Stanovich 1980, 1984). Based on this distinction, and in order to support his view, Stanovich (1980) mentions an empirical study by Allington, who had observed that poor readers rely more on context for accuracy (i.e. word recognition) whereas good readers rely more on context for fluency (i.e. interpretation of texts). Stanovich (1980, 1981, 1984) also suggests that poor readers who have problems in word recognition may rely more on contextual clues. Furthermore, he claims that good readers have acquired automatic decoding skills (bottom-up strategy), and, therefore, do not usually generate hypotheses (top-down strategy) about what they are going to read since it would take them longer. Thus, as speed is an essential factor in reading rate, good readers do not make conscious guesses to recognise words (Stanovich 1980).

This contradicts the top-down assumption that fluent readers rely more on contextual redundancy and are better at predicting words than poor readers, who are seen to be mainly word-bound. However, the interactive-compensatory model explains results in several studies for which linear models provided no explanations. For example, it helped us to understand why some readers tend to rely more on the text while others rely more
on context. Carrell (1988) mentions that overreliance on one form of processing is one of the problems faced by poor readers and the interactive compensatory model can explain why this is so. That is, good readers change their mode of processing according to their needs – there is a bidirectionality in the process – whereas poor readers tend to use unidirectional text processing which may cause them problems in comprehension. To sum up, in order to become fluent and accurate, readers must make constant use of interaction between bottom-up (recognition skills) and top-down (interpretation strategies) processes (Stanovich 1980; Carrell 1988; Eskey 1988). In short, the contribution of this interactive model is as Stanovich (1984: 15) himself states:

 [...] the [compensatory] assumption that deficiencies at any level in the processing hierarchy can be compensated for by a greater use of information from other levels, and that this compensation takes place irrespective of the level of the deficient process.

3.1.2.4 Other interactive models

Next, four other interactive models will be briefly described:

• McClelland and Rumelhart’s interactive activation model (1981);
• Taylor and Taylor’s bilateral cooperative model – 1983;
• LaBerge and Samuels’ automatic information processing model – 1977 – and

McClelland and Rumelhart’s (McClelland and Rumelhart 1981, Rumelhart and McClelland 1982) interactive activation model of context effects in letter perception is based on research on word recognition, namely on how letters are perceived in different contexts. This model claims that context facilitates letter perception as letters are being processed in the perceptual system. According to this model, the process of activation results from two types of interaction: excitatory and inhibitory activation. The former
increases the interaction of individual visual features, letters and words, whereas the latter reduces their activation level. The process starts with the printed stimuli which activate the detectors for the visual features in the text. Next, these detectors activate letter detectors which relate to the visual input. Then, these detectors for letters will activate detectors for words. As this excitatory activation augments from different sources, some possible words are inhibited and only one or two will reach consciousness. Due to the automaticity of this process (that is, the whole process is more rapid than the amount of time required to predict consciously), the reader can focus on understanding instead of having to select or predict words (McClelland and Rumelhart 1981, Rumelhart and McClelland 1982). Finally, it should be noted that, according to Rumelhart and McClelland (1982: 90), this model resembles Morton’s logogen model\(^1\) in several ways:

As in the logogen model, we would simply imagine that a context would tend to prime the nodes [relevant units in the system] for words consistent with it. Such words would tend to benefit from this priming. The interference with performance of words inconsistent with the context could be accounted for in various ways.

Another interactive model developed in 1983 is Taylor and Taylor’s bilateral cooperative model which brings neurolinguistic research together with several characteristics of the two interactive models mentioned previously – the interactive activation model and the interactive compensatory model. It initiates parallel processing strategies in different levels of text information. This parallel processing works in two track processes: fast and slow mechanisms. The former are global and rapid processes. The function of these right hemisphere global recognition processes is to locate what their input has in common with patterns that are already familiar. The latter are slow and analytical processes (or left analytical recognition processes) whose function is to break down their inputs into component elements to find out the existing differences. In order to operate, these processes take into account what difficulties the reader encounters either in the task or in the text itself (Grabe 1988).
The third model to be considered is LaBerge and Samuels' automatic information processing model developed in 1977. Originally a bottom-up model, as noted in 3.1.1, it was later complemented with feedback loops in order to allow interaction between higher and lower levels of processing. According to this model there is an automatic processing of word recognition, which allows the reader to focus his/her attention on the meaning of what he/she is reading rather than having to concentrate on input information. Thus, a fluent reader is one who can pay more attention to comprehension because he/she is able to decode words automatically (Grabe 1988; Barnett 1989).

Finally, the verbal efficiency model, developed by Perfetti in 1985, is summarised. Perfetti proposes a more restrictive definition of reading than other models do. That is, reading should not be regarded as thinking or the problem-solving strategies that are associated with thinking. Bearing this in mind, Perfetti developed a model whose central concepts are three reading processing skills: processes of lexical access, proposition integration and text model building. Processes of lexical access are considered to be the most important of these processing skills. This model can, therefore, account for several L2 reading problems, by using these processing skills (Grabe 1988). Although this overview of interactive models suggests that they are widely accepted (Urquhart 1999), more recently they have been criticised, as I will describe later in 3.2.

3.1.2.5 Schema theory

The term schema, meaning background knowledge and experience, was used for the first time in psychology by Bartlett in 1932. Anderson and Pearson (1984) argue that, although they did not actually use the term, the research of other Gestalt psychologists such as Wundt, Huey, and Ausubel, can nevertheless also be regarded as a historical antecedent for the notion of schema. It should be noted that there are, however, a number of different terms referring to previously acquired knowledge structures such as frames, scripts, event chains and expectations used by researchers to reflect different schema-theoretical orientations (Rumelhart 1980; Carrell 1983). As none of these
orientations will be analysed in particular, from now onwards, following Rumelhart’s (1980) criteria, I will use the term schema. His choice is based on the historical precedence established by the fact that Kant had already used the term. Schemata, or ‘building blocks of cognition’ as Rumelhart (1980: 34) termed them, are abstract knowledge structures representing all our concepts, which are stored in our memory and can be retrieved whenever they are appropriately activated. Schemata are abstract because they have a place to store each constituent element in the knowledge structure and they are also stereotyped because they establish relationships among its different elements (Hudson 1982).

Schema theory is concerned with knowledge, namely with the importance of background knowledge in language comprehension. It deals not only with the way knowledge is represented but also with the way it helps us to use that knowledge in different ways. When referring to reading, it is about the interaction of the reader and his/her knowledge with the text. In other words, it focuses on the interactive process between the reader’s background knowledge, which is stored in his/her memory, and the interpretation of new information in the text (Rumelhart 1980; Widdowson 1983; Anderson and Pearson 1984).

A schema has an internal structure that consists of variables. According to Rumelhart (1980: 35) these variables ‘can be associated with (bound to) different aspects of the environment on different instantiations of the schema’. By instantiation of a schema is meant a particular representation or configuration of an abstract, stereotyped schema provided by the reader which will help comprehension of a text at a particular moment in time (Rumelhart 1980; Hudson 1982; Widdowson 1983).

The most important function of a schema is to understand and to give an interpretation of events, situations, or objects. Therefore, its primary activity, is the ‘evaluation of goodness of fit’ (Rumelhart 1980: 39), that is, whether the hypothesis put forward makes sense in each of its constituent parts. When a reader is able to find a configuration of
hypotheses which makes sense of a message, then he/she has comprehended the text. In this way, schemata are also a source of prediction about events or situations which are out of reach of our sensory observation, as they allow us to interpret unobserved events.

Because Rumelhart (1980) argues that schemata are considered active processes and have a structure, they are said to be similar to procedures. In fact, he compares them with procedures in the sense that they have two characteristics in common – a functional one and a structural one. The former can be viewed as the function of finding out if, and to what extent, a schema can account for a pattern of observations. The latter can be understood as the structure of a schema in the sense that a schema can evaluate, at any time, the ‘goodness of fit’ of each of its constituent elements. That is, a schema has a structure made up of several subschemata representing the different elements of the concept which is being represented. Each of these subschemata can be invoked at any time, if necessary, to help in the comprehension of a text. In short, Rumelhart (1980: 40-41) outlines four major features and two general features of schemata:

1. Schemata have variables.
2. Schemata can embed, one within another.
3. Schemata represent knowledge at all levels of abstraction.
4. Schemata represent knowledge rather than definitions. [...]  
5. Schemata are active processes.
6. Schemata are recognition devices whose processing is aimed at the evaluation of their goodness of fit to the data being processed.

There are two different ways of activating the above mentioned schemata structures: bottom-up and top-down activation. In the former, because it is data-driven activation, when a particular subschema is activated it will, in turn, activate all the schemata of which it is a constituent element. In short, the direction is from the part to the whole. The latter, on the other hand, being conceptually driven, will start a process from general expectations. In other words, the direction is from the whole to the part. Unlike in linear
models, in schema theory activation for schemata goes in both directions (Rumelhart 1980).

Schemata have three major roles in reading: they help in the perception and comprehension of text and in remembering stored knowledge. The first one is a data source sensorial process. The second is a process of getting a configuration of schemata that makes sense of a text. The last role is a data source memorial process since it can either form an interpretation of the text previously read and/or reconstruct the original interpretation of the text (Rumelhart 1980).

Finally, according to schema theory there are three different ways of developing new schemata. The most common one is termed accretion and consists of learning from new information. The second one, tuning, is the process of modifying or evolving existing schemata through new experience. Lastly, restructuring is the process of forming new schemata either by pattern generation – they can follow the pattern of the old schemata – or by schema induction – they will be created from new experience (Rumelhart 1980).

Carrell (1983, 1988) considers a further distinction between formal schematic knowledge and content schematic knowledge. The first refers to a reader’s background knowledge of the formal rhetorical structures of a text whereas the second refers to a reader’s prior knowledge of the content area of the text. Finally, there is another type of background knowledge schema that also plays an important role in reading. This is the linguistic schema (Carrell 1987).

Schema theory has had a great impact on understanding of the process of reading both in L1 and L2 since it claims an interaction of bottom-up and top-down strategies in efficient and effective reading. As the implications of schema theory are important for L2 reading comprehension, empirical research has been carried out to find evidence that good readers need not only to have linguistic knowledge but also a formal and content background knowledge in order to understand a text.
In an empirical study of background knowledge, Steffensen and Joag-Dev (1984) compared students from different cultural backgrounds to find out how the schemata of differing cultures might affect understanding of texts. The results indicate that students remember better and can make more correct inferences about texts referring to their own culture because the appropriate content schemata can be activated. The authors claim that background knowledge of a text topic can influence how a text will be interpreted and recalled afterwards. In another empirical investigation of background knowledge, Alderson and Urquhart (1985) show that students from a specific discipline obtained better scores on cloze tests in their own discipline than students from different disciplines. In other words, students from a particular discipline need to activate schemata of the specific background knowledge, which is discipline specific, otherwise they may have difficulty in comprehending a text from their field of study. Carrell (1984a) presents evidence for the importance of formal schemata of story structure on L2 comprehension, namely in the quantity and the temporal sequence of the story recalled. In another study, she demonstrates that some types of English rhetorical pattern, namely comparison, causation, and problem/solution, facilitate the recall of ideas from a text by L2 readers with various native languages (Carrell 1984b). Finally, Carrell (1985) provides evidence that explicit instruction on rhetorical organisation of expository texts tends to improve L2 reading, since it increases the information readers are able to recall afterwards.

In another empirical study, Hudson (1982) analysed the role played by schemata in L2 adults who were considered proficient readers in L1. He demonstrated that in L2 there is a relationship between the reader's language proficiency and his/her background knowledge and that lack of relevant schemata may cause partial failure in reading comprehension. He also showed that induced schemata (such as vocabulary or pictures related to the text topic) may compensate for the limits imposed in reading comprehension by low language proficiency. Similarly, in a study of L2 secondary school learners in Australia, Nunan (1985) concluded that there is an interaction between background knowledge and language proficiency which will determine the reading
comprehension level of a particular text. He also argues that schema theory has pedagogical implications: both language and topic should be taught so that learners can use the language communicatively. Moreover, he suggests that background knowledge can, to a certain extent, compensate for language deficiencies in L2 learners when they are reading a text.

Other studies point to the relevance of linguistic schemata. Cohen et al. (1979) agree that syntactic markers of cohesion, i.e. conjunctive words, may influence the reading ability of non-native readers. Hence, forms signalling grammatical cohesion should be taught in ESP classes. Limited language proficiency in L2 may also obstruct general reading ability in a foreign language (Cohen et al. 1979; Clarke 1980). That is why some attention should also be paid to teaching bottom-up strategies, i.e. decoding skills such as vocabulary development and some grammatical forms.

The study of schemata has also helped to explain why some L2 readers misunderstand texts. One of the reasons may be that the reader lacks the appropriate schemata, i.e. schema availability (Rumelhart 1980; Carrell 1984b, 1988; Carrell and Eisterhold 1983; Alderson and Urquhart 1985). Schema activation may be another cause. In other words, although the right schema is available, the reader is not able to activate it, probably because a lack of clues renders the text opaque (Rumelhart 1980; Carrell and Eisterhold 1983; Carrell 1984c, 1988; Steffensen and Joag-Dev 1984). Finally, it may also be that the reader interprets the text in a consistent way which is not intended by the writer, meaning that there is an intrusion of a schema which is not adequate (Rumelhart 1980; Carrell 1984c).

3.2 Implications for teaching

At the end of this brief overview of reading models, it should be noted that, as Samuels and Kamil (1988) pointed out, it is very difficult to evaluate and compare different models. There are two problems. Firstly, models are normally considered partial rather
than complete in the sense that they cannot take into account every aspect of the reading process and that they depend on the researcher's knowledge of it. Models are always constrained by the period in which they were developed as well as the existing research and scientific philosophies (e.g. behaviourism or cognitive psychology). Secondly, each model developer is influenced by the data obtained in his/her research. This information gathered in different studies is affected by four variables which interact with each other: the age and skill of the subjects, the task(s) the subjects have to perform, the materials chosen and the context in which the experiment takes place. In other words, if any of these factors is altered, both the results and the experimenter's view of reading may change.

The models discussed above have influenced the teaching of reading in English as a second or foreign language and sometimes models were suggested for L2 reading instruction. Coady's (1979) psycholinguistic model of the English as a Second Language (ESL) reader, based on Goodman's model, is an example of an attempt to adapt top-down processing to L2 reading. Widdowson (1983) developed a model of language in use which gives a theoretical basis for ESP. Moreover, Widdowson's model suggests that schemata, an essential concept for him, should be taken into account when designing ESP courses.

According to Urquhart (1999: 301), interactive models are widely accepted. However, they have limitations as far as their application to the teaching of reading is concerned. For example, although accepting interactive models, Urquhart and Weir (1998: 100) have argued that these models would need to be expanded when applied to teaching of reading both in L1 and L2, as interactive models restrict their interpretation of reading to 'careful reading'. In other words, in these models reading is assumed to be a complete understanding of the meaning of a text. Thus, in the theoretical literature there is an overemphasis on careful reading and a neglect of the fact that there are different types of reading (such as skimming for gist, search reading and scanning).
Urquhart and Weir (1998: 101) therefore propose that attention should be given not only to ‘careful reading at local level’ (i.e. word recognition or syntactic parsing), which has already been done in the psychological literature, but also to ‘careful reading at global level’ (i.e. understanding of the main ideas of a text or of the discourse topic). In other words, the ‘macropropositional’ level of the text should be considered in addition to the ‘micropropositional’. Thus, they suggest that, in addition to careful reading at local level, at least five kinds of reading should be discussed: search reading, skimming, scanning, careful reading at global level and browsing. They conclude that future models should be able at least to consider these five types of reading (Urquhart and Weir 1998). More recently, Grabe and Stoller (2002: 33) have criticised interactive models for being ‘self-contradictory’ and argue that ‘[m]ore accurate ways to understand reading comprehension, even metaphorically, require “modified interactive models” that highlight the number of processes, particularly automatic processes, being carried out primarily in a bottom-up manner with little interference from other processing levels or knowledge resources’. Interactive models of reading have also been criticised for being purely cognitive and not taking into account contextual factors. This means that in these models, or ‘psycholinguistic cognitive views’ as Johns (1997: 11) terms them, the social dimension of reading is ignored.

Although accepting the contribution of learner-centred theories (i.e. based on psycholinguistic cognitive views of reading and writing), Johns (1997: 14) claims that they do not ‘provide an adequate basis for an instructional program that addresses academic literacies’. According to what Johns (1997: 14) has termed ‘socioliterate views’ (i.e. views which focus on the social factors in literacy development), the terms schemata and interactivity should be redefined and expanded. Firstly, the term schemata (i.e. contextual sociocultural schemata) should include ‘knowledge about context, about readers’ and writers’ roles and about the values and registers of cultures and communities’ (Johns 1997: 15). Secondly, interactivity is not only the relation between the reader and the text but it also includes the culture to which the readers, the writers and the texts belong. In short, socioliterate views include several factors which had
previously been excluded from reading and writing processes. Thus, she claims that in order to encourage students to develop strategies both for reading and writing different academic genres the teacher should try to raise students’ awareness of the relationships between text form, writer’s purpose(s) and social context. In short, Johns (1997: 19) suggests a new approach to teaching in which ‘literacy classes become laboratories for the study of texts, roles, and contexts, for research into evolving student literacies and developing awareness and critique of communities and their textual contracts’ and ‘classrooms should focus on variety, critical awareness, and analysis as we encourage students to become lifelong learners’.

Bearing in mind the awareness of literacies as forms of sociocultural practice, Gill (2000) also criticises interactive models for excluding features of context such as the reader’s reason(s) for reading, the context in which texts are read and the visual aspects of texts. He adds that ‘reading is a social practice’ (Gill 2000: 84) and it is therefore difficult to reconcile Gill’s view with cognitive approaches which tend to deal with cognitive processes of ideal readers. Furthermore, Gill (2000: 92) proposes an ‘integrated approach to reading’ in which priority is given to meaning rather than processing, and ‘understanding is therefore to be explained not by reference to internal processes, but to the culture, where particular genres and accepted ways of talking about them, are familiar because its members have learnt their use’. In other words, the relationship between reader and text is no longer a hermetic one, but it takes context into account and emphasises reading practices. As far as L2 is concerned this would mean viewing reading as a ‘situated, purposeful activity’ (Gill 2000: 94) which is in agreement with John’s (1997) socioliterate view.

To sum up, nowadays strictly bottom-up or top-down models tend to be out of favour in L2 teaching, specifically in reading instruction. The recognition of the importance of interactive models of reading has had major implications for L2 reading instruction. If it is accepted that reading is an interactive process then attention should be paid not only to the teaching of top-down strategies (Grellet 1981; Nutall 1996), but also to bottom-up
strategies (Carrell 1988; Eskey 1988; Grabe 1988). In order to improve L2 reading ability in a foreign language it is important that readers are made aware and capable of using their background knowledge (Hudson 1982; Carrell 1988). This is particularly relevant when reading academic expository texts in any scientific field (Alderson and Urquhart 1985). Therefore, reading courses should give due consideration to background knowledge. In addition, some decoding skills which seem to be basic to good reading, such as quick word recognition, vocabulary development both active and receptive, and syntactic pattern recognition, should also concern reading instruction (Cohen et al. 1979; Eskey 1988; Grabe 1988).

The present study pays attention to bottom-up and top-down strategies and also draws on socioliterate views (see Chapter 4) as I emphasised both readers' and writers' roles as well as the influence of contextual factors on discourse on the grounds that both language and texts are socially constructed (Johns 1997; Gill 2000). The social construction of texts will be further discussed in Chapter 8. In the sections that follow, I will relate the present study to research and practice within EAP/ESP.

3.3 Developmental view of practice and research in EAP/ESP

The previous chapter described the role of English both in the college and within the Portuguese education system and how it has become the predominant foreign language in education systems throughout the EU. However, its increasing influence has not been restricted to Europe as Cobb and Horst (2001: 315) point out:

With the growth of English as the lingua franca of work and study, many non-English speakers find themselves needing to attain some level of proficiency in English in order to function in jobs or courses. However, they may have limited time to devote to language learning, and little interest in knowing English outside the work or study context.

This influence can be traced back to the period following World War II when the role of the United States as a superpower increased the use of English world wide, especially in
the fields of science and technology. In addition, due to the shifting patterns of trade and new working practices, English has gradually become the language of the international economy (Graddol 1997). Thus, in the 21st century, English has become what Crystal (1997a: 2) termed a ‘global language’, which he explains as follows: ‘a language achieves a genuinely global status when it develops a special role that is recognized in every country.’

3.3.1 Initial development of EAP/ESP

As a consequence of this spread of English, the demand for English courses increased. In the 1950s an idea began to emerge that adults who had a specific reason for learning English would benefit from courses specially designed to meet their needs. This concept of ‘special purpose’ was not completely new, as it had been used in commercial manuals and in the teaching of English for commercial purposes since the nineteenth century. However, this demand now also concerned English courses for different specialities (Howatt 1984) or, as Strevens (1988: 3 – underlined in original text) describes it: ‘major changes have taken place in the status and position of English within education. In particular, the role of English […] has become […] more instrumental, more a tool whereby the citizen can open a window on to the modern world, especially the world of science, technology, the media, trade and industry, and international aid and administration.’

It is difficult to say with precision when ESP began. Swales (1985) considers the real beginning of ESP to be the publication of Barber’s (1962) article on the lexical and grammatical features of scientific writing. However, according to Howatt (1984), the use of ESP in the modern sense began later, in 1969, with the publication of a conference report entitled ‘Languages for Special Purposes’ edited by Perren. The 1970s saw a rapid development in ESP courses, which has continued to the present time. Due to the increasing importance of international business, the trend in recent years has been
towards English for Business Purposes. As a result, at present most of the published materials are related to Business English.

Dudley-Evans and St. John (1998) offer an historical perspective on EAP/ESP in which they suggest that over the years, five movements have had an influence on it: register analysis (1960s); rhetorical and discourse analysis (1970s); skill-based approaches or analysis of study skills (late 1970s and early 1980s) and the learning-centred approach or analysis of learner needs (late 1970s and 1980s); and register analysis based on the emergence of computer corpora and genre analysis (1990s). Research in all these areas has impinged on both teaching practice and published materials with new trends usually developing in reaction to the previous ones. More recently, Swales (2001) has described the history of EAP-related research on language and discourse from the 1960s onwards. Initially, the focus of research was on syntax and lexis (1960s). In the 1970s, the main concerns were innovative. The late 1970s were marked by four developments: analysis of ‘oral discourses, discourse analysis, rhetorical modelling and rules of use’ (2001: 47). In the 1980s EAP/ESP was influenced by several types of discourse analysis; a resurgence of contrastive rhetoric; the emergence of social constructionism; and the prominence given to variation between disciplines. According to Swales (2001), the notion of intertextuality introduced by the work of Bakhtin (e.g. Speech genres and other later essays first published in 1979) translated into English in the 1980s, was another important influence. Intertextuality is the idea that any given text originates, at least in part, in previous texts and may also influence texts still to be written (Bakhtin 1986: 92-94). Finally, the 1990s have emphasised genre analysis, the use of technology (e.g. corpus linguistics), and ethnographic studies. Benesch (2001) offers a third perspective on EAP – a critical view. In addition to the description of the historical trends in EAP, which she considers the view from ‘inside the field’, Benesch presents an ‘unofficial history’ or ‘view from the outside’ (2001: 24) dealing with political and economic issues in EAP by problematising what she terms ‘EAP’s “ideology of pragmatism”’ (2001: 41).
3.3.2 EAP/ESP research and teaching practice

As Swales (2001: 49) points out research in the EAP/ESP field ‘has steadily moved beyond a detached lexico-syntactic analysis to ones that are variously multi-modal.’ Genre analysis, which emerged in the early 1990s (e.g. Swales 1990 and Bhatia 1993) as ‘an alternative approach to satisfy the need for text-specificity’ has recently been further broadened (Flowerdew and Peacock 2001a: 15). However, the use of a genre approach to EAP/ESP teaching has been a controversial issue (see Hyon 1996 for an overview of current genre theories and teaching applications in three different research traditions – ESP, New Rhetoric and Australian Systemic Functional Linguistics). For example, within the New Rhetoric movement (Freedman and Medway 1994), Freedman (1993, 1994) has criticised a genre-based pedagogy in EAP/ESP. She considers that such pedagogies are limited in their generalisability since genres are always changing in response to situations or contexts; they could also encourage prescriptiveness; and a highly formulaic approach which may limit rather than facilitate learning. Although these criticisms point to some possible limitations of a genre-based pedagogy, the advantages of such a pedagogy outnumber the possible drawbacks. A genre-based approach can relate textual findings to the characteristics of the discourse community of a particular genre, developing an awareness of the rules and conventions of those genres. Thus, without imposing a pattern, it offers a model that may be useful to students (Bhatia 1993; Jordan 1997; Dudley-Evans and St. John 1998) and can help to clarify both the communicative goals of the discourse community and the strategies used to reach those objectives (Bhatia 1993). Or as Hyland (2002a: 22) points out ‘Genre pedagogy is underpinned by the belief that learning is best accomplished through explicit awareness of language rather than through experiment and exploration’.

The above noted development of genre analysis means that, in some cases, the research focus has shifted to a more ethnographic approach to the discourse communities (e.g.
Berkenkotter and Huckin 1995). That is, researchers not only use members of discourse communities as specialist informants to confirm their linguistic interpretation(s) (e.g. Tarone, Dwyer, Gilette and Icke 1998) but also make them the focus of the analysis (Flowerdew and Peackock 2001a; Swales 2001). This trend towards an ethnographic approach, both in research communities (e.g. Berkenkotter and Huckin 1995) and pedagogy (e.g. Holliday 1994; Flowerdew and Miller 1995; Northcott 2001; Bell 2002) indicates an increasing preoccupation with ‘discourse in context’, social context and culture (Flowerdew and Peacock 2001a: 19; for an overview of ethnographic/naturalistic approaches to researching academic discourse see Flowerdew 2002b). This preoccupation with specialist informants has also had an influence on EAP/ESP teaching where there has been some work developed in collaboration with subject specialists (e.g. Flowerdew 1993; Dudley-Evans 2001). Another important influence in EAP/ESP has come from the work of sociologists of science (e.g. Knorr-Cetina 1981; Latour and Woolgar 1986) with the ‘claims that scientific facts are socially and rhetorically constructed’ (Swales 2001: 48).

A great deal of attention has also been paid by researchers and EAP/ESP practitioners to the rhetorical structure of academic texts (e.g. Carrell 1984a, 1984b, 1985; Swales 1990, 1995; Myers 1992; Bhatia 1993; Nwogu 1997) or sections of academic papers (e.g. Swales 1984; Crookes 1986; Hopkins and Dudley-Evans 1988; Brett 1994; Kaplan et al. 1994; Gupta 1995; Anderson and Maclean 1997; Williams 1999; Hyland 2000a chapter 4; Burgess 2002; Samraj 2002).

The belief that there may be pedagogical value in raising awareness of and teaching the structural organisation of the text-genre has resulted in the publication of textbooks on academic writing. These textbooks help NNSs of English to be aware of both the macrostructure and the preferred patterns in certain academic genres and show how to employ them in writing academic texts (e.g. Weissberg and Buker 1990; Swales and Feak 1994, 2000). A staff development programme, entitled Effective English Communication for Teaching Research, which aims to support English communication
within the context of research and teaching in the Hong Kong Polytechnic University, has taken the genre-based approach a step further by ‘developing a genre model for consciousness raising’ which goes beyond ‘the prescriptive, structural mode’ (Sengupta, Forey and Hamp-Lyons 1999: s7). Genre-based pedagogy has also been applied to reading instruction either as the only approach (e.g. Hyon 2001, 2002) or in combination with other approaches. The EAP reading courses at Tel Aviv University are an example of the latter. Each reading course includes explicit instruction in: linguistic forms, reading comprehension strategies, academic genres and criterion tasks, i.e. ‘tasks where the focus is on meaning and which mirror real-life academic tasks’ (Spector-Cohen, Kirschner and Wexler 2001: 377). Because there is pedagogical value in teaching genre in academic reading courses, the first unit of my course aimed to raise awareness of some features of various academic and technical genres.

The above mentioned development of genre analysis together with the use of computer-based corpora in text analysis research has allowed EAP/ESP researchers and teachers to analyse particular discourse features of written academic discourse (e.g. Hyland 1998a on hedging). This means, for example, that qualitative analysis of discoursal features of texts can be supplemented by quantitative data obtained by using concordancing programmes, which make the findings of register analysis more significant than in the past (Dudley-Evans and St. John 1998). These studies differ from previous register studies since they ‘include qualitative, functional interpretations of quantitative patterns. [...] The goal of corpus-based investigations is not only simply to report quantitative findings, but to explore the importance of these findings for learning about the patterns of language use’ (Biber, Conrad and Reppen 1998: 5). Some of the research using computer-based corpora on particular discourse features of written academic discourse, has, as Hyland (2002a: 20) suggests, ‘revealed the persuasive purposes of these texts [academic texts] and the social and cultural practices of the communities in which they operate’. The use of corpus linguistics has not been restricted to research but EAP/ESP courses have also increasingly incorporated computer-assisted instruction. This use of technology in EAP/ESP courses includes both corpus-based teaching approaches (e.g.
Cobb and Horst 2001) and computer-assisted language learning (CALL) (e.g. Flowerdew 1995).

Another relatively recent and important development, according to Swales (2001), has been research into particular discourse features in academic writing. In certain cases, the EAP/ESP researchers and teachers who have analysed discourse features of written academic discourse have suggested ways in which they could be incorporated into EAP/ESP teaching materials, especially into writing courses (e.g. Hyland 2000a). I have devised my research on the basis of several of these studies, motivated by the view that:

[...] writers construct ideal texts with particular reading audiences in mind, and seek, in realising those ideal texts, to design their discursive structures and to realise their lexicogrammatical textualisations to match the conventions of the genres within which they are writing and the gradually unfolding expectancies and competencies of the readership they have in mind (Candlin 2000: xv).

Moreover, my research was also motivated by the view that there is pedagogic value in raising the awareness of text features as a way to facilitate the understanding of academic texts. This reflects the view that in order to understand disciplinary discourses:

We need to understand these transient regularities and why particular features seem to be so useful to writers that they become regular practices, often institutionalised as approved disciplinary literacies. An improved awareness of such interactions is, then, the key to understand how academic discourse works in English whether seen as professional training or as published emblems of scholarship (Hyland 2000a: 2 – my emphasis).

Bearing in mind this view of discourse, I selected the text features listed below, (sometimes with a slightly different name), as topics for the reading course used in the present study. Many of the studies below were of additional use to me when I designed the unit handouts:
• metadiscourse (Vande Kopple 1985; Crismore 1989; Mauranen 1993a, 1993b; Valero-Garcés 1996; Hyland 1999a);
• connectives (Geva and Ryan 1985; Morrow 1989; Geva 1987, 1992; Mauranen 1993b; Valero-Garcés 1996);
• anaphoric nouns (Francis 1986) and reference in academic rhetoric (Mauranen 1993b);
• compound nominal phrases or nominal compounds (Dubois 1982; Salager 1984; Williams 1984; Halliday 1993a; Montero 1995, 1996);
• nominalisation (Halliday 1988, 1993b; Bhatia 1993: 148-157);
• reporting verbs (Thompson and Ye 1991; Thomas and Hawes 1994; Hyland 1999b, 2002b);
• thesis statement (Clyne 1987; Mauranen 1993b; Willecocks 2000); and
• topic sentences (Clyne 1987; Mauranen 1993b).

To sum up, my study draws on some of the more recent developments in EAP/ESP, both in practice and in research, and in particular, on genre analysis and on features often associated with the teaching of writing (e.g. Swales and Feak 1994, 2000), which are of pedagogical value in a language awareness reading course.

3.3.3 EAP/ESP and the course topics

3.3.3.1 Contrastive text analysis pilot study

As there are no studies, at least that I am aware of, of the differences and/or similarities between language conventions in academic writing in English and European Portuguese I thought I should confirm my suspicion that there are some differences. Thus, at an early stage of my study, I carried out a small pilot study in the form of a contrastive text
analysis of journal articles in different fields related to agriculture in English and in European Portuguese.

Corpus

I analysed a corpus of 16 journal articles, 8 in English and 8 in Portuguese, out of a total of 30 journal articles selected by the librarian of the college. The reason for analysing articles from the college library was two-fold. First, most articles in the sample had been ordered by lecturers and were therefore relevant either to their research work or their teaching. This fact is mentioned by a lecturer in the pre-course questionnaire: ‘Generally speaking the books/articles in the ESACB [i.e. college] library are ordered by the lecturers’ (Pre-CQ L2: Q26 – my translation). Second, these articles may be considered representative of the academic texts usually read by lecturers and possibly students. I reduced the number to be included because I was attempting to construct a corpus in which there would be a certain similarity firstly in rhetorical organisation (i.e. abstract, introduction, materials and methods, results and discussion), secondly in types of journal and thirdly in article length.

English articles were selected from journals published in English-speaking countries or with an English title i.e. journals probably published entirely in English since, as Wood (2001: 83) points out, ‘many countries have national science journals published in English’. Despite all this, the sample still had several limitations. First, there was a wide range both of topics and types of journal making it impossible to match Portuguese and English articles for comparison. Second, some articles were not very recent. Third it is possible that some of the authors were not native speakers of English (henceforth NSs). Finally, as only a rough estimate of text length was made, there might have been a small bias in the comparison.
Linguistic features analysed

The following nine text features were considered:

- hedging,
- discourse structuring words or ‘words that organize discourse’ (Hedge 2000: 193),
- four metatextual elements:
  - connectors,
  - reviews,
  - previews and
  - action markers
- pro-forms²,
- first person personal pronouns,
- passive.

There were two reasons for selecting these linguistic features: they are characteristic of academic writing in English and at least some of them have already been the focus of empirical studies (e.g. Cohen et al. 1979; Mauranen, 1993a; Salager-Meyer 1994; Valero-Garcés 1996; Espinoza 1997; Tarone et al. 1998; Chih-Hua 1999).

Data analysis

Next, I will comment briefly on the results (see Tables 3.1 and 3.2). In English (despite text variability), there are almost double the number of hedges found in Portuguese articles. This suggests that in English hedges are a more common strategy for mitigating and modulating academic discourse and more often used to express underlying attitudes and strength of commitment and/or claim(s) than in Portuguese. This also implies a more reader-oriented attitude reflecting a more interactional use of language in English than in Portuguese.
Both previews and action markers are only used in two texts, that is in 25% of the sample, while reviews are used in five texts, that is in 62.5% of the texts. Connectors are also more common in English, although the two outliers – texts E5 and E8 – show extremely low and high values respectively. A more reader-oriented attitude in English may account for the higher incidence of metatext in English articles. However, these differences may also be the result of writers’ choices, or constrained by the publishers’ demands (e.g. number of pages allowed per article), or both.

Table 3.1: Use of linguistic features in journal articles written in English.

<table>
<thead>
<tr>
<th>Texts</th>
<th>Hedging</th>
<th>DSW(^1)</th>
<th>Connectors</th>
<th>Reviews</th>
<th>Previews</th>
<th>Action markers</th>
<th>Pro-forms</th>
<th>1st person pronouns</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>29</td>
<td>14</td>
<td>36</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>9</td>
<td>0</td>
<td>74</td>
</tr>
<tr>
<td>E2</td>
<td>22</td>
<td>8</td>
<td>26</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>68</td>
</tr>
<tr>
<td>E3</td>
<td>8</td>
<td>6</td>
<td>35</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>E4</td>
<td>12</td>
<td>4</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>70</td>
</tr>
<tr>
<td>E5</td>
<td>9</td>
<td>6</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>E6</td>
<td>9</td>
<td>4</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>35</td>
</tr>
<tr>
<td>E7</td>
<td>31</td>
<td>1</td>
<td>38</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>71</td>
</tr>
<tr>
<td>E8</td>
<td>44</td>
<td>6</td>
<td>75</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>26</td>
<td>1</td>
<td>123</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>40</td>
<td>247</td>
<td>17</td>
<td>15</td>
<td>18</td>
<td>85</td>
<td>53</td>
<td>525</td>
</tr>
<tr>
<td>Mean</td>
<td>10.500</td>
<td>4.000</td>
<td>30.875</td>
<td>1.125</td>
<td>1.375</td>
<td>1.125</td>
<td>10.625</td>
<td>6.625</td>
<td>35.000</td>
</tr>
</tbody>
</table>

\(^1\) DSW= discourse structuring words

Table 3.2: Use of linguistic features in journal articles written in Portuguese.

<table>
<thead>
<tr>
<th>Texts</th>
<th>Hedging</th>
<th>DSW(^1)</th>
<th>Connectors</th>
<th>Reviews</th>
<th>Previews</th>
<th>Action markers</th>
<th>Pro-forms</th>
<th>1st person pronouns</th>
<th>Be-Passive</th>
<th>Se-Passive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>5</td>
<td>1</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>11</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>P2</td>
<td>13</td>
<td>8</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>18</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>P3</td>
<td>16</td>
<td>7</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>17</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td>P4</td>
<td>20</td>
<td>8</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>22</td>
<td>13</td>
<td>35</td>
</tr>
<tr>
<td>P5</td>
<td>14</td>
<td>10</td>
<td>36</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>P6</td>
<td>16</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>P7</td>
<td>4</td>
<td>7</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>47</td>
<td>56</td>
</tr>
<tr>
<td>P8</td>
<td>8</td>
<td>10</td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>47</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>55</td>
<td>163</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>9</td>
<td>28</td>
<td>105</td>
<td>175</td>
<td>280</td>
</tr>
</tbody>
</table>

\(^1\) DSW= discourse structuring words
In Portuguese, there are two forms of passive: the Be-passive and Se-passive or reflexive passive (Johns 1992). The former is cognate with the passive in English and uses the verb 'to be' as auxiliary. The latter uses the reflexive clitic 'se', and although it is in fact an active voice form, it is passive in function. The Be-passive and the Se-passive were counted separately but the results were added together, and referred to simply as passive when the two languages were compared. The English articles show a greater use of passive than the Portuguese. The same trend applies to the use of first person pronouns, which may reflect a greater flexibility in style in English than in Portuguese.

The use of discourse structuring words, which play a similar role to pro-forms in organising the discourse, is slightly higher in English. This closeness in results indicates that both languages use discourse structuring words for anaphoric and cataphoric reference.

Finally, in Portuguese journal articles the number of references in English is higher than those in Portuguese and one (text P2) has no Portuguese references (see Table 3.3), which shows the increasing importance of English academic publications for accessing information in scientific communities.

Table 3.3: Language of references in journal articles written in Portuguese.

<table>
<thead>
<tr>
<th>References</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
<th>Total</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>11</td>
<td>22</td>
<td>23</td>
<td>7</td>
<td>1</td>
<td>82</td>
<td>10.25</td>
<td>8.648</td>
</tr>
<tr>
<td>Portuguese</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>25</td>
<td>3.125</td>
<td>2.475</td>
</tr>
<tr>
<td>French</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>24</td>
<td>3.000</td>
<td>3.742</td>
</tr>
<tr>
<td>Spanish</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0.25</td>
<td>0.707</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>9</td>
<td>19</td>
<td>14</td>
<td>26</td>
<td>30</td>
<td>22</td>
<td>8</td>
<td>80</td>
<td>10.000</td>
<td>8.742</td>
</tr>
</tbody>
</table>

The results of this preliminary study show that the overall frequency of every linguistic feature recorded is slightly higher in English than in Portuguese. Despite their relevance in academic writing, three linguistic features (i.e. personal pronouns, pro-forms and the passive) were not included in the reading course. Personal pronouns and pro-forms were
not selected as their use did not differ much from Portuguese and although there are two forms of passive in Portuguese, their use in both languages is similar.

3.3.3.2 Course topic selection

The selection of the topics for the course draws both on EAP/ESP related research in genre analysis and in particular on the discourse features of written academic discourse (discussed above in 3.3.2) and on the contrastive pilot study described above. The selection and sequencing of topics was based on the assumption that, although in ESP texts are seen as vehicles of information (TAVI) rather than linguistic objects (TALO) (Johns and Davies 1983), it is nonetheless important to draw students' attention to text genres and discourse features, which may have become 'conventionalised discursive practices' (Bhatia 1999: 23) within particular academic discourse communities, and to how some of these discourse features differ from L1. Or as Frankenberg-Garcia (1991: 59) points out in relation to L2 writing instruction both students and teachers should ‘decentre from the discourse conventions of their native languages by accepting that such conventions are not universal across cultures’. She expands this by suggesting that:

One way this could be brought about is by helping SL2 writers familiarize themselves with the discourse conventions of the target language through reading. [...] Of course neither SL2 writers nor L2 writing teachers need externalize their knowledge of such differences in the ways a linguist would. [...] what is most needed is a compromise between the linguist’s consciousness and the learner’s unspoken intuitions: didactic explanations on L2 discourse conventions could accelerate the process of helping SL2 writers to develop an autonomous feeling for such conventions while reading and writing in L2. (1991: 60; 62 – my emphasis).

This idea is reinforced by Hyland’s (2000a. 149) suggestion that:

While biologists or engineers are not linguists, we might succeed in developing their curiosity about language use in their disciplines and
encourage them to ask questions about the purposes and potential effects of the features they encounter.

Hence, the choice of features for instruction, both those related to macro and micro level characteristics of texts, was based on their likely usefulness as facilitators of understanding. The topics I initially selected were the following:

1. The journal article (genre);
2. Identifying topic sentences;
3. Metatext in the text – reviews, previews, and action markers;
4. Metatext in the text – connectors;
5. Vocabulary – discourse structuring words/discourse organising words;
6. Vocabulary – word formation (prefixes, suffixes, noun compounds);
7. Vocabulary – decoding noun chains/complex noun phrases;
8. Nominalisation or the nominal style;
9. Hedging devices; and
10. Reporting verbs.

However, this initial choice was modified while I was designing and piloting the course. All the course tasks and tests were piloted by a French researcher who was doing post-doctorate research in the veterinary department of the University of Edinburgh. Because this researcher had a higher level of proficiency in English than any of the possible course participants, I asked her to complete each task or test in half the time which would be allotted to course participants.

Word formation (topic 6) was discarded as it did not seem very helpful for reading. Thesis statement was added to the unit on topic sentences which became the final unit of the course. The final version of the course consisted of the following topics:

1. Journal articles and textbooks;
2. Reviews, previews and action markers;
3. Connectors;
4. Discourse structuring words;
5. Decoding noun chains;
6. Nominal style;
7. Hedging;
8. Reporting verbs; and

I will consider next the main aims of each unit and in some cases I will also refer to labelling choices.

3.3.3.3 Journal articles and textbooks (Unit 1)

The aim of Unit 1 was to give an overview of academic genres, macrostructure and rhetorical organisation and to show how they can help the reader to identify either a topic, how a text is structured, which type of reading will be appropriate (e.g. skimming for gist or careful reading). In other words, it was designed to raise the awareness of genres as ‘goal-directed communicative events’ with ‘schematic structures’ (Swales 1990: 42). The comparison of different genres was also an attempt to emphasise the notion that different genres will be used depending on the writer’s communicative purpose and intended audience or that, as Bhatia (1993: 16) states, ‘each genre, in certain important respects, structures the narrow world of experience or reality in a particular way, the implication is that the same experience or reality will require a different way of structuring, if one were to operate in a different genre.’ This ‘genre orientation’ (Lynch 1992: 3), that, for example, Lynch (1992) considers useful in L2 writing instruction, may also be beneficial for L2 readers of academic texts with different proficiency levels.

As mentioned in section 3.3.2, genre has been the subject of much interest and discussion recently and various definitions of genre have been proposed (e.g. Swales
1990: 58; Bhatia 1993: 16; Mauranen 1993b: 18). However, these interpretations of the concept were too elaborate for the pedagogical purpose of my unit on journal articles and textbooks. Therefore, bearing in mind both the participants and purpose of this unit, I offered the following simplified definition of genre in the unit handout: ‘written texts that have specific characteristics agreed upon by the conventions of the scientific community which uses that particular genre’ (IH: 1).

Bhatia (1993) refers to the distinction sometimes made between genre (e.g. research article) and sub-genres (e.g. survey article, review article, state-of-the-art article). No attempt was made to differentiate these two terms, as it did not seem relevant to the unit objective. Three reasons can be offered for this choice. First, the differences would be too subtle and not helpful to hard science lecturers and students. Second, even Bhatia (1993: 21) admits that ‘it seems almost impossible to draw up clearly defined criteria to make a satisfactory distinction between genres and sub-genres.’ Finally, this unit was only an introductory lesson on academic genres.

Although the unit considered different types of academic and even some technical writing, its main focus was on journal articles and textbooks, the two academic genres that both lecturers/researchers and students are not only more familiar with but also need to read more often (Kuhn 1963: 350-351; Myers 1992: 3; Swales 1995: 6-9, 1990: 93-95; Hyland 2000a: 104).

Finally, I also attempted to raise awareness of the use of selective reading strategies and non-sequential reading patterns (further developed in Unit 9) because this also seems to be common among scientists as two studies based on interviews and observation (Bazerman 1988), and solely on interviews (Berkenkotter and Huckin 1995), show. Scientists read journal articles selectively, as they are searching for ‘the news’ or ‘something new and/or interesting’ for their research field (Berkenkotter and Huckin 1995: 30). The two studies differ only slightly as Table 3.4 shows:
### Table 3.4: How scientists select and read journal articles according to studies by Bazerman (1988) and Berkenkotter and Huckin (1995).

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Selection</strong></td>
<td><strong>Selection</strong></td>
</tr>
<tr>
<td>• scanning table of contents quickly:</td>
<td>• scanning table of contents quickly:</td>
</tr>
<tr>
<td>• key words</td>
<td>• key words</td>
</tr>
<tr>
<td>• authors</td>
<td>• authors</td>
</tr>
<tr>
<td>• read title</td>
<td>• read title</td>
</tr>
<tr>
<td><strong>Reading</strong></td>
<td><strong>Reading</strong></td>
</tr>
<tr>
<td>• Introduction</td>
<td>• Abstract</td>
</tr>
<tr>
<td>• Conclusions</td>
<td>• visual aids</td>
</tr>
<tr>
<td>• visual aids</td>
<td>• Results section</td>
</tr>
<tr>
<td>• filed for later reference</td>
<td>• Discussion or Introduction</td>
</tr>
<tr>
<td>• careful reading only if relevant for research</td>
<td>• careful reading depending on time availability</td>
</tr>
</tbody>
</table>

### 3.3.3.4 Reviews, previews and action markers (Unit 2)

Unit 2 focused on three types of metatext which are explicit features of textual organisation:

- reviews (explicit indicators that an earlier section of the text is being restated or summarised);
- previews (explicit indicators that a later section of the text is being anticipated);
- action markers (indicators of discourse acts performed in the text).

Metatext is an aspect of metadiscourse, of ‘discoursing about discourse, talking about talk, and talking with readers about writing’ (Crismore 1989: 7). According to Vande Kopple (1985: 83) a text has two discourse levels - the level of primary discourse and the level of metadiscourse – which he defines as follows:

> On one level we supply information about the subject of our text. On this level we expand propositional content. On the other level, the level of metadiscourse, we do not add propositional material but help our readers organize, classify, interpret, evaluate, and react to such material.
Metadiscourse, therefore, is discourse about discourse or communication about communication.

Basing his ideas on Halliday’s macro-functions of language (i.e. ideational, interpersonal and textual), Vande Kopple (1985) proposes a taxonomy in which he divides metadiscourse into two categories: textual and interpersonal. These are further divided into subcategories. Textual metadiscourse includes text connectives, code glosses, illocution markers and narrators while interpersonal metadiscourse includes validity markers (i.e. hedges, emphatics and attributors), attitude markers and commentaries (Vande Kopple 1985: 83-85).

Several other systems, which draw on Vande Kopple’s model, have also been proposed (Crismore 1989; Nash 1992; Crismore, Markkannen and Steffensen 1993; Hyland 2000a). In addition, according to Hyland (2000a), other researchers have narrowed the focus of metadiscourse to include only indicators of expositive illocutionary acts (Beauvais 1989) or features of textual organisation or metatext (Valero-Garcés 1996; Mauranen 1993a). In designing this unit, I adopted Mauranen’s metatext classification which will be discussed later.

Although I selected the term metatext for Unit 2 and thus adopted a narrower focus, other metadiscoursal elements were the topic of other units – connectors (Unit 3) and hedges (Unit 7). Connectors are also included in Mauranen’s metatext classification but because of their relevance in written academic English, they required a unit to themselves. The course dealt with five different types of linguistic device that could be classified as metadiscourse. On the one hand, reviews, previews, action markers and connectors which could be included in the category of metatext or ‘textual metadiscourse’ (Vande Kopple 1985; Hyland 1999a, 2000a). On the other hand, hedges which belong to ‘interpersonal metadiscourse’, that is, they allow ‘writers to express a perspective towards their proposition and readers’ (Hyland 2000a: 112).
The term metatext rather than the broader ‘metadiscourse’ was adopted for this unit for two reasons. First, I decided to use Mauranen’s system of classification (1993a: 9-10) because the topic of the unit only concerned features of textual organisation. Mauranen (1993a: 7-8) defines metatext as ‘essentially text about text itself. It comprises those elements in the text which at least in their primary function go beyond the propositional content […]]. Metatext thus serves to organise the propositional content of the text and to comment on it.’ Mauranen follows a narrower interpretation of metadiscourse than other analysts such as Vande Kopple (1985), Crismore and Farnsworth (1990), Crismore, Markkannen and Steffensen (1993) or more recently Hyland (1999b; 2000a). Second, I felt the term metatext would be more accessible to participants since they might understand the word ‘text’ more easily.

The presence of these three metatextual elements may range from single words to sequences of sentences, all of which reflect the writer’s rhetorical preferences for a reader-oriented attitude, which should facilitate reading. That is, the writer is more explicitly present in the text by commenting on either its rhetorical organisation or its propositional content (Mauranen 1993a; Valero-Garcés 1996).

3.3.3.5 Connectors (Unit 3)

Unit 3 concentrated on the use of connectors as explicit indicators of the relationships between propositions in the text. The term is borrowed from Mauranen (1993a: 9), who defines connectors as ‘conjunctions, adverbial and prepositional phrases, which indicate relationships between propositions in text.’ In another study, Mauranen further clarifies the rhetorical role of connectors:

The general function of connectors in written discourse […] is to indicate relationships between propositions, sentences and parts of texts. Connectors in natural languages are much more varied than connectives in logic, and they are typically used for expressing such relationships as addition, adversativeness, causality, and temporality. […] Connectors do not constitute important structural elements in the clauses they are
attached to, but operate in syntactically peripheral roles, outside clause structure proper (1993b: 159).

Three more specific functions of connectors have also been considered. Two of these are concerned with the ‘surface clarity of text’ (Mauranen 1993b: 162): the creation of cohesion (Halliday and Hasan 1976) and the facilitation of reading (Spyridakis and Standal 1987). The third is rhetorical in that connectors also ‘provide the writer with a means of regulating the way in which readers will interpret the text’ (Mauranen 1993b: 162-163; cf. Morrow 1989).

I chose the term connectors for two reasons. First, as the participants were already familiar with this term, I felt it was unnecessary to introduce new terminology, which might only confuse them. Second, several taxonomies have been proposed, each adopting different terms (i.e. conjunctions, conjuncts, discourse connectives). These taxonomies can be notional as is the one proposed by Halliday and Hasan (1976: 226-267) who define conjunctions as one of five types of cohesion; or they can categorise connectors according to syntactic and semantic properties. The system proposed by Quirk, Greenbaum, Leech and Svartvik (1985: 631-647), in which conjuncts are defined as one category of adverbials, can be included in this latter category as can that proposed by Warner (1985) on discourse connectives. All these taxonomies draw fine linguistic distinctions which would be unlikely to facilitate the participants’ reading process. In addition, the aim of the unit was not text analysis but to facilitate reading. Thus, it seemed more reasonable to adopt the familiar term.

It should also be mentioned that no attempt was made to differentiate between internal and external uses of connectors (Halliday and Hasan 1976; Halliday 1994). Halliday explains the difference between these two types of relationship as follows:

As a cohesive resource conjunction works in two ways, once again corresponding to the distinction between the ideational and the interpersonal metafunctions.
(a) External (ideational conjunction). This sets up a relationship between processes. [...]  
(b) Internal (interpersonal) conjunction. This sets up a relationship between propositions or proposals [...] Here the semantic relations set are between the steps in an argument, not between phenomena of experience (1994: 338).

The differentiation between the internal and external relations of connectors would not facilitate reading comprehension in this particular group of learners. Moreover, there was not enough time to focus on these internal and external relations. Finally, it was not relevant for the purpose of the unit and would have created additional difficulty.

3.3.3.6 Discourse structuring words (Unit 4)

Discourse structuring words (Ferguson 1996), also termed ‘discourse-organising words’ (McCarthy 1991: 75) or ‘structuring vocabulary’ (Anderson 1997), are a group of words in between grammar or content words (members of an open set) and lexical or function words (members of a closed set). That is to say, they share qualities from the two systems. They only make sense within a particular text since they need to be lexicalised with information from the text (McCarthy 1991; Ferguson 1996) and provide a type of lexical signalling in discourse.

Discourse structuring words may help the writer to structure and organise the argument by setting up a relation between two stretches of discourse. They may also help the reader to identify the relevant portion of the text and signal the writer’s attitude towards the meaning they carry. These lexical items can both point backwards (i.e. anaphorically) and forwards (i.e. cataphorically) in the text.

Discourse structuring words can be seen as a sub-category of the class which Halliday and Hasan (1976: 274) identified as ‘general nouns'. Moreover, within the referent development approach developed by Mauranen (1993b), we could argue that discourse
structuring words can be regarded as an aspect of ‘text reference’ whenever ‘the reference item is accompanied by lexical items’ (Mauranen 1993b: 64).

Discourse structuring words like anaphoric nouns, a subclass of discourse structuring words, are ‘a sort of discourse labelling’ (Francis 1986: 34) and can be subdivided into those that ‘repeat information’ (e.g. ‘such a delay’) and those which ‘add information’ (e.g. ‘this distortion’) (Mauranen 1993b: 64-65; 76). Furthermore, information can be added both by the choice of noun and/or by adding attitudinal or evaluative modifiers such as adjectives (Francis 1986: 55-58). They are nouns which organise the argument or connect ideas the writer wants to convey. They do not express the subject matter or content of the text itself. For the purpose of Unit 4, discourse structuring words in academic texts were defined as: [...] ‘empty’ or ‘half-empty’ words (i.e. abstract nouns) because they need to be ‘filled out’ with meaning from other words in the text. This means, the reader needs either to look back or to look forward to discover to which words in the text they refer’ (4H: 1).

3.3.3.7 Decoding noun chains (Unit 5)

A variety of terms, sometimes with slight different meanings, have been used to refer to noun chains. These include: ‘complex nominals or nominal compounds’ (Montero 1996: 57); ‘compound nominal phrases’ or ‘complex nominal items’ (Salager 1984: 136); ‘compound nouns’ or ‘nominal compounds’ (Horsella and Pérez 1991: 125); ‘nominal compounds’ (Williams 1984: 146). I chose noun chain because it again seemed to be a form of labelling which would be more transparent for course participants. For the purpose of this unit, I considered a noun chain a particular string of words in which two or more units are juxtaposed.

I included noun chains for three reasons. First, they have frequently been considered a problem for readers, in particular students who are NNSs of English (e.g. Dubois 1982: 53; Salager 1984: 142; Williams 1984: 146; Horsella and Pérez 1991: 126; Halliday
1993a: 69, 77; Montero 1995: 14; Celce-Murcia and Olshtain 2000: 129-130) as they make the discourse more concise and compact so that the meaning needs to be unpacked. One of the problems with noun chains faced by NNSs may be the recognition of the head noun, as Celce-Murcia and Olshtain (2000: 130) point out:

Readers whose linguistic proficiency enables them to make quick and accurate identification of the head noun in these complex noun phrases will end up processing the text faster and more accurately. This bottom-up processing skill is facilitative when it works well, but damaging when the ESL/EFL reader misinterprets the position of the head noun. This particular grammatical difficulty might affect both speed and accuracy.

Second, noun chains are a common feature of academic writing in English. Moreover, as White (1998: 267) states: ‘modern technology favours elaborately premodified nominal groups built from items drawn from the vernacular lexicon and acronyms derived from these complex groupings.’ Finally, noun chains allow the use of word order which differs from the Portuguese, where noun chains tend to be linked by prepositions or, in some cases, modifiers may follow the head noun. Noun chains are not very common in Portuguese, which, I know from my teaching experience, may result in ambiguity for Portuguese readers. Montero, referring to Spanish readers, considered two types of ambiguity, which also apply to Portuguese. This ambiguity may be either when the nominal group has two or more possible referents or when the nominal group has only one referent but more than one possible relationship between its different units (Montero 1995: 74-75). The second type of ambiguity is the most common one. The two examples below illustrate this point.

(2a) • Nominal group has two or more referents:
‘(8) English teacher – teacher of English? or a teacher who is English?’
(Montero 1996: 67).

(2b) • One referent but more than one possible relationship between its different units: ‘(9) batch control control of the batch? control for the batch? control in the batch? control from the batch?’ (Montero 1996: 68).
In her comparative study of complex nominals in English and Spanish Montero (1995) shows how understanding and/or translation of these may be a complex task for a speaker of Spanish. In my teaching experience this is also a difficulty for Portuguese speakers. The examples in the table below, adapted from Montero’s study (1995), which illustrates the difficulty of translating noun chains, were chosen because they have exactly the same words and word order in Portuguese. As the number of units in a noun chain increases the higher the possible number of combinations, as Montero (1995: 286) explains: ‘La premodificación múltiple genera grupos nominales complejos que responden a una variadísima tipología, teniendo en cuenta el número y categoría gramatical de los elementos que lo componen’ [Multiple premodification creates complex nominal groups which correspond to a very varied typology based on the number and grammatical category of the elements which constitute it (my translation)].

Table 3.5: Two-unit complex nominals in English and their most frequent word order combinations in Spanish translation.

<table>
<thead>
<tr>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj + N</td>
<td>N + adj</td>
</tr>
<tr>
<td>e.g. electronic devices</td>
<td>e.g. dispositivos electrónicos</td>
</tr>
<tr>
<td>N1 + N2</td>
<td>N2 + prep + N1</td>
</tr>
<tr>
<td>e.g. memory devices</td>
<td>e.g. dispositivos de memória</td>
</tr>
<tr>
<td>N1 + N2</td>
<td>N2 + adj</td>
</tr>
<tr>
<td>e.g. slash marks</td>
<td>e.g. barras inclinadas</td>
</tr>
<tr>
<td>N1 + N2</td>
<td>N2 + N1</td>
</tr>
<tr>
<td>e.g. room temperature</td>
<td>e.g. temperatura ambiente</td>
</tr>
<tr>
<td>N1 + N2</td>
<td>N</td>
</tr>
<tr>
<td>e.g. timer clock</td>
<td>e.g. temporizador</td>
</tr>
</tbody>
</table>

(all these examples are written exactly the same in Portuguese)

(adapted from Montero 1995. Table taken from page 168 and examples taken from pages 165, 223 and 232)
3.3.3.8 Nominal style (Unit 6)

In this unit I focused on nominal style since it is considered characteristic of scientific and technical style and compared it with verbal style or clausal style (cf. Halliday 1993b: 117). The following definition was given for the purposes of this unit:

**Nominal style** refers to writing in which a great quantity of nouns are used, especially abstract nouns, which increases **abstraction**. Many of these nouns are **nominalisations** (i.e. nouns derived from verbs or adjectives that often represent processes or abstract ideas). Thus, we can speak of a nominal style in writing, which is abstract and more formal and/or technical (6H: 1).

Like noun chains, the nominal style can be an economical way of packaging information because nominalisation increases the degree of language complexity and abstraction making texts more lexically dense (Halliday 1988, 1993b) and potentially creating difficulty for readers (Celce-Murcia and Olshtain 2000: 129). Moreover, as Martin (1998: 6) points out, when discussing Halliday’s work on the evolution of scientific English, ‘nominalisation evolved as a resource for construing scientific reality as a world of logical relations among abstract entities’. In short as Hyland (2002a: 64) notes nominalisation ‘freezes an event […] and repackages it as an object […]. Turning processes into objects in this way clearly fits well into scientific epistemologies that seek to show relationships between entities. In addition nominalisation allows writers to thematise processes in order to say something about them and to manage the information flow of a text more effectively.’ Nominalisations can cause problems for L2 readers as Ulijn (1984: 71) points out:

[…] the reader of a foreign scientific and technical text is hampered by the content words required for a conceptual analysis, such as technical terms and nominalizations, rather than by syntactic function words which are experienced as difficult only if syntactic analysis is necessary.

This nominal style, by allowing the packaging of complex processes into a single constituent either at the beginning or at the end of a clause, may cause comprehension
problems for readers. This can be seen, for example, in the way the two styles are compared in an academic writing guide: ‘prose that seems clear [verbal style] and prose that seems difficult [nominal style] is how writers express the crucial actions in their stories – as verbs or as nouns’ (Booth, Colomb and Williams 1995: 218). These difficulties made me consider nominal style as a relevant topic for a course unit.

3.3.3.9 Hedging (Unit 7)

Unit 7 focused on hedging devices, which are a common strategy for mitigating and modulating academic discourse. An academic writer uses hedges\textsuperscript{13} to express underlying attitudes and strength of commitment and/or claim(s), which means that hedges can be used to avoid opposition to a proposition. This opposition may be either to the content itself or to the readers’ negatability of the claim(s) proposed (Hyland 1996a, 1998a). Lack of awareness of the use of tentative expressions and the need to mediate claims in academic texts may hinder or even distort comprehension. It is also important to raise awareness of the fact that ‘one function of hedges is to contribute to a relationship by alerting readers to the writer’s perspective towards both propositional information and to the readers themselves’ (Hyland 1998a: 5). In short, hedges are used to express the writer’s attitude(s) to both propositions (i.e. content) and readers (i.e. peers). In this unit the following working definition was given: ‘\textit{hedging} is when a writer uses a word or expression which helps us to see how committed he/she is to what he/she is writing about’ (7H: 1).

I included hedging for three reasons. First, it is an area which L2 students find problematic (Hyland 1996b, 2000a; Hyland and Milton 1997). Two recent studies by Hyland (2000b) and Low (1996) suggest that, in addition, hedges often seem to pass unnoticed by both L2 and L1 readers. Low has labelled this the ‘Lexical Invisibility Hypothesis’\textsuperscript{14} according to which learners often appear to be unaware either of hedges as a constitutive feature of scientific writing or of the functions they play in the interaction
between writer, reader, context and the language conventions of academic genres and discourse communities.

Second, it has often been neglected in teaching (Hyland 1996b, 2000b; Curnick 2000) and that is why some studies have discussed how hedging could be used pedagogically for teaching academic writing (Skelton 1988a; Hyland 1996b, 1998a chap. 8) or refer to the pedagogical implications of the research carried out (Makaya and Bloor 1987; Skelton 1988b; Salager-Meyer 1994; Hyland 1996b; 1996c; Hyland and Milton 1997). It seems that hedges are a pervasive discoursal resource in academic writing and should therefore receive more attention in the teaching of English for academic purposes. Or as Hyland comments: ‘A clear awareness of the pragmatic impact of hedges […] and an ability to recognise them in texts, is crucial to the acquisition of a rhetorical competence in any discipline’ (2000a: 193). Finally, there are the results of the pilot study mentioned above which suggest that hedges are more common in academic English than in Portuguese.

3.3.3.10 Reporting verbs (Unit 8)

In Unit 8, I discussed the use of different reporting verbs, a topic related to hedging, as a means of asserting the degree of the writer’s commitment to the propositional content which is being conveyed. Because of the major role played by citation in academic writing (e.g. Swales 1990; Thompson and Ye 1991; Thomas and Hawes 1994; Hyland 2002b) reporting verbs are a textual feature associated with establishing the authorial presence in the text (Clark and Ivanic 1997a: 157). They are therefore important indicators of the writer’s stance in relation to previous research (Hyland 2000a: 23). Furthermore, reporting verbs help to signal ‘whether claims are to be taken substantiated or not’ and are ‘a powerful tool in authors’ attempts to create research spaces for themselves’ (Swales 1990: 151). For these reasons, I decided to devote one course unit to this topic.
3.3.3.11 Thesis statement and topic sentences (Unit 9)

Unit 9 was concerned with how thesis statements and topic sentences may help structure discourse and ideas across the text and thus lead the reader through the text. Moreover, they can help the reader to decide whether the text deserves a careful reading, i.e. a linear, non-selective reading. The thesis statement was considered only in relation to research articles, while topic sentences were mentioned in relation to academic genres in general.

The term thesis statement was adopted because it is commonly used in American composition courses and manuals (Willcocks 2000) though some researchers use different terms to express this concept. Mauranen (1993b: 204) points out that ‘This important part of the text has been given such names as for example the “main thesis” (Tessmann 1989), or “thesis statement” (Tirkkonen-Condit and Lieffländer-Koistinen 1989) or “clause-topic” (Dubois 1989).’

The thesis statement, then, is usually located in two different sections of the article: in the Introduction and the Discussion section (Berkenkotter and Huckin 1995: 35; 40). In the Introduction, it is generally placed towards the end while in the Discussion section it usually appears first. Berkenkotter and Huckin (1995: 40) state that ‘If we apply a Swales-type analysis to the Discussion sections of journal articles, we find the same three types of moves [establishing a territory, establishing a niche, occupying the niche] as in the Introduction, but in reverse order. First, there is typically a statement of the principal findings.’ In a genre-based investigation of the Discussion sections in agriculture articles (on irrigation and drainage) which appeared in the proceedings of an international conference and others in biology MSc. Dissertations, Hopkins and Dudley-Evans (1988: 117) found that there was a cyclic patterning which started with ‘Statement of Result’ or, in other words, with part of the thesis statement.

Furthermore, the thesis statement is usually very closely related to the title. Although the title can ‘indicate either what the text is about or what its most important content is’
(Mauranen 1993b: 209), in recent years titles have become more precise and more informative. According to Berkenkotter and Huckin (1995: 33) at present the main result is invariably announced in the title: ‘In short, more bottom-line information is being loaded into the most highly foregrounded part of any article, the title – the one part that is also listed in the table of contents’. In fact, Mauranen (1993b: 215), in a textlinguistic study, suggests an ‘ideal axle pattern’ to identify the main point of a research article: ‘the expectation was to find one sentence in the introduction, presenting a question or problem, and one sentence in the conclusion section stating an answer, which would match the title of the text.’

It is also interesting to note how this view is reflected in advice on ‘Speedy reading’ given to students in manuals, as the following example illustrates:

**STEP 2: Locate the point of the argument**

Read the introduction, particularly its last few paragraphs, then the conclusion. In one or the other, you will find a statement of the problem and its resolution. Identify as well the kind of evidence that supports the main claim (Booth, Colomb and Williams 1995: 83).

In this unit the following working definition of thesis statement was given: ‘the sentence(s) that tell the reader what the main claim (= what the writer wants the readers to believe) or main point of a journal article is’ (9H: 1).

Topic sentence was defined as the sentence which tells the reader either what a whole paragraph is about or what the main idea of the paragraph is (i.e. topic, purpose or main idea). Moreover, it was pointed out that sometimes in English texts it is possible to say what the paragraph is about just by reading the first and/or the final sentence. In other words, the topic sentence performs the same function for the paragraph as the thesis statement does for the text (Björk and Rääsänen 1997: 172). It was also emphasised that many well-written paragraphs do not have explicit topic sentences. This means that the topic, purpose or main idea of the paragraph is implied and not clearly stated. In
textbooks, the title of a section or subsection also functions as a topic sentence, since it clearly states what the next section or subsection is about.

Although the teaching of topic sentences, both in writing and reading instruction, has been very often criticised (e.g. Mauranen 1993b: 203), it has been shown that, for example, Anglo-American writers make more use of topic sentences than German writers do (Clyne 1987: 232). In addition, looking for topic sentences can be useful as a first approach to a text and helpful in deciding whether to read it or not.

3.4 Language awareness

Having discussed some of the most recent developments in EAP/ESP and the underlying reasons for the selection of the course topics, I now turn to some studies of LA on which my study also draws. This relates to the discussion in the previous sections in the sense that there is pedagogical value in raising the awareness of academic genres and particular academic discourse features (e.g. Swales and Feak 2000). For example, Hyland (2000a: 145), basing his ideas on studies he carried out on social interactions in published academic writing, proposes an approach to disciplinary discourses in the teaching of academic writing which ‘requires that students gain an awareness of the discipline’s symbolic resources for getting things done by routinely connecting purposes with features of texts’. He further points out that:

We need then to find ways to incorporate contextual factors such as purpose and audience into the formal and functional descriptions of texts that students are often given.

Such methods need to emphasise a conscious awareness of recurrent and useful patterns in the target genre repertoire and the need to reflect on the motives behind their use (Hyland 2000a: 148 – my emphasis).
This awareness-raising of genre and text features can also be used in reading courses. Thus, the course I designed attempted to raise awareness of the following elements:

- writers’ choices of discourse features in academic texts and the consequences of those choices;
- writer-reader interaction in texts (through the use of particular discourse features);
- how discourse features match text genres; and
- how these choices are similar to or differ from L1.

I will now discuss developments in LA and their relevance to the present study. LA, which has had a long tradition in some European countries (van Essen 1997) as a pedagogical approach, came into widespread use in the US in the 1970s through the whole language movement, mainly in primary schools (van Lier 1996; Goodman 1997). In the UK the LA movement, which has focused primarily on secondary schools, became known in the early 1980s (Hawkins 1992, 1999a, 1999b; Donmall-Hicks 1997). At present, according to van Lier (2001), LA interest, research and practice are emerging from three different sources:

- ‘a practical, pedagogically oriented language awareness’ (e.g. LA movement in the UK);
- ‘a more psycholinguistic focus on consciousness-raising and explicit attention to language form’; and
- ‘a critical, ideological perspective that looks at language and power, control and emancipation’ (van Lier 2001: 161).

3.4.1 Language awareness conceptualisations

LA has been defined in different ways. For example, within the LA movement in the UK, the 1985 working party of the National Congress on Languages in Education (NCLE), proposed the following definition: ‘Language Awareness is a person’s sensitivity to and
conscious awareness of the nature of language and its role in human life’ (Donmall 1985: 7). This has been described as a very ‘comprehensive’ definition which ‘does not sufficiently illuminate the concept’ (Stainton 1992: 110), and that ‘clearly needs unpacking’ (Candlin 1991: xi). One decade later, van Lier (1995: xi) offered a similarly broad definition of LA: ‘an understanding of the human faculty of language and its role in thinking, learning and social life.’

Hawkins (1984) gives a more detailed and unambiguous definition, which is based on the main aims of LA and refers to the first few years of British secondary education (11-14 age range). In Hawkins’ view LA has the following four central objectives:

- to assist with the ‘the start of foreign language studies’;
- to facilitate the understanding of the ‘explosion of concepts and language introduced by the specialist secondary school subjects’;
- to bridge ‘the “space between” the different aspects of language education’ (English and other languages); and
- to accept ‘language diversity’ and challenge ‘prejudice’ through ‘open discussion and greater awareness’ (Hawkins 1984: 4).

A slightly different view, or a subset of both Donmall and Hawkins’ view, is known as knowledge about language (henceforth KAL) and is centred on primary and secondary school education (van Lier 1996; van Essen 1997). However, there seems to have been some confusion about the exact meaning of this term (Stainton 1992). Although KAL should be compatible with all the different conceptions of LA, it is frequently understood as a way of advocating more formal grammar teaching. In fact, whenever KAL takes on a narrow form-focus approach to the formal aspects of language, it may revert to the prescriptivism associated with, for example, sentence parsing and the rote learning of rules and exceptions (van Lier 1996).
Within second language acquisition (SLA), the second source of interest in LA, discussions are centred around explicit and implicit language teaching, learning and knowledge, with particular reference to grammar (for a description of these controversies see, for example, Ellis 1997). LA is here associated with explicit and conscious learning but not with traditional prescriptive grammar teaching and is often referred to as ‘consciousness-raising’ (henceforth CR) (e.g. Sharwood Smith 1981; Rutherford and Sharwood Smith 1985; Rutherford 1987). The proponents of CR view instruction in this type of ‘grammar-driven pedagogical programme’ (Rutherford 1987: 154) as a way of ‘drawing of the learner’s attention to features of the target language’ (Rutherford 1987: 189). More recently, Sharwood Smith (1991: 122) has opted for the term ‘input enhancement’ instead of consciousness-raising. He argues that the latter ‘is a neat, but misleading, term’ (1991: 120) because it raises the question of what is meant by consciousness (see Schmidt 1990 for a discussion of consciousness).

A third approach, Critical Language Awareness (henceforth CLA), which grew out of both the LA movement and Critical Discourse Analysis in the UK in the 1980s, takes, as its name indicates, a critical, ideological view of language, focussing on the relations between language and power, control and emancipation. As Fairclough (1992a: 7) points out:

[... ] it [critical language study] highlights how language conventions and language practices are invested with power relations and ideological processes which people are often unaware of. It criticises mainstream language study for taking conventions and practices at face value, as objects described, in a way which obscures their political and ideological investment.

Furthermore, Fairclough (1989: 240) also proposes a model of language education, which is based on two main guiding principles, which are essential to the critical approaches to education: ‘marrying awareness and practice’ and ‘building on experience’. Because of its aims, very often the target audience for courses adopting a CLA approach are ‘discriminated minorities and other disenfranchised populations’ (van
Lier 2001: 162) instead of all types of students (Clark and Ivanic 1999; Wallace 1999). There are different trends in this type of critical pedagogy, with variations between individual practitioners and countries (e.g. UK, Australia, South Africa or Brazil) where it is being applied. Practical pedagogic applications of CLA have been found at all educational levels, ranging from primary school to university level or from adult literacy programmes to teacher training (Clark and Ivanic 1997b; Wallace 1997). At university level, the CLA approach has been adopted for teaching both reading and writing (e.g. Wallace 1992, 1999; Clark and Ivanic 1991, 1997b).

Although LA has been defined in different ways, proponents of LA usually agree that language learning, both for L1 and L2, should not be viewed as ‘prescriptive instruction [which] is concerned primarily with correctness, and only secondarily with understanding, appreciation and creative expression’ (van Lier 2001).

3.4.2 Language awareness and the present study

Although my use of the term LA draws on the views briefly outlined above, it does not fit neatly into any one perspective. In this study, LA is seen partly as a form-focused approach because it relies on a variety of the linguistic features of academic texts, but simultaneously it is concerned with the processes (i.e. conscious nature of the tasks) and strategies used in reading. The aim of this approach is to help participants to develop awareness of how English is typically used in academic texts within the social context in which they were written. It also attempts to draw participants’ attention to text genres within the constraints of the discourse community to which they belong. Finally, whenever it seemed relevant, I attempted to highlight differences between the academic writing conventions of English and those of Portuguese, in the belief that contrasting L1 and L2 can facilitate academic reading (Carvalho 1999).

My approach is thus closer to what Wallace (1999: 98) terms ‘conventional LA’ and distances itself from CLA. This is because I take ‘a relatively weak view of the meaning
of “critical” to mean a preparedness to question and reflect on the meaning and uses of language’ while ‘[a] stronger definition of “critical” argues for the need to draw attention to the ideological bases of discourses as they circulate both in everyday life and within specific texts’ (p. 98).

My interest in LA emerged partly from my situation as an L2 learner of English and partly from my teaching work. I felt the need to develop my own awareness of English because of the difficulties I face as a NNS. This type of ‘language-awareness work relies on noticing the language around us and examining it in a critical manner’ and has therefore been ‘an ongoing process of critical examination, and a way of looking at language’ (van Lier 1995: 10 underlined in original text). Second, as James and Garrett (1991a: 21) point out: ‘If the classroom is where LA has to be nurtured, then the first requirement is for teachers to develop their own LA: LA begins with teacher awareness.’ In fact, in recent years, LA has also been a concern in teacher education (e.g. Bolitho 1988; Edge 1988; Wright and Bolitho 1993, 1997a, 1997b; Borg 1994; Wright 1991, 2002; Ferguson 2002) and several textbooks, which can be used in teacher training programmes, have been published (e.g. van Lier 1995; Arndt, Harvey and Nuttall 2000).

Two factors contributed to the development of my awareness of academic genres and the language used in academic texts to achieve effective communication. First, both my interest in English as an L2 learner and my sense of professional responsibility lead me to search for possible answers or explanations whenever my students raise problems or questions for which I have no answer during the lessons, when colleagues come to my office with queries about English or when I am puzzled or unaware of features of English. Or as van Lier (1995: 12) has put it:

[...] language is usually transparent, [...] meanings seem just to go through it. It is like a window which we only notice when it gets dirty. However, unlike a window which may be kept spotlessly clean just with a rag and some cleaning liquid, language seems to have inherent blemishes and weak spots which we continually have to work to
overcome and patch up. Language is never quite transparent, but that does not mean that it is easy for us to use it as we wish.

Second, I attended two summer courses (Teaching English for Specific Purposes 1996 and English Today 1998) at the Institute for Applied Language Studies, University of Edinburgh, which drew my attention to some of the topics I later chose to cover in the reading course which I designed for the present study.

My improved awareness of both genres and textual features has facilitated my own understanding of academic texts. This intuition is supported by Swales (1990) who has pointed out the pedagogic value of text consciousness-raising activities in academic language courses, which focus on both the macro- and micro-structure of texts. This argument is further elaborated by Celce-Murcia and Olshtain (2000: 230) who expand it to include spoken discourse suggesting that:

(1) learners improve both their receptive and productive language skills when teachers give attention to the structure and process of discourse; (2) learners examine general discourse features (i.e. top-down) before specific text features (i.e. bottom-up), and the general features help provide a context and an explanation for use of specific forms; and (3) learners develop metalinguistic awareness that is useful in critiquing their own speech and writing as well as that of others.

Van Lier (1996: 69) has also pointed out that ‘language teachers and language learners benefit from stimulation of their linguistic consciousness, including awareness of language use in relevant settings’. Furthermore, more textbook writers seem to adopt this type of approach. For example, Swales and Feak (2000: vi) explain at the beginning of their writing guide English in today's research world that: ‘we basically employ a genre-based approach with a strong focus on rhetorical consciousness-raising.’ Because drawing attention to such issues could also be useful for both my students and colleagues as it might improve their understanding of propositional content and meaning, I began to think about how I might use an approach based on LA in my own work.
My choice of a LA approach was reinforced by my teaching experience: agriculture students prefer an approach to textual analysis that draws upon concrete points taught, if possible, in an explicit, rational, objective way. Sharwood Smith (1981: 159-160), referring to adult learners, has drawn attention to this point: 'it is notoriously difficult to deny adult learners information about the target language (TL) since their intellectual maturity as well as their previous teaching/learning experience makes them cry out for explanations.' Although it can be argued that 'language awareness approaches do not in themselves cause language acquisition to take place' they may 'help learners to pay informed attention to features of their input and can create the curiosity, alertness and positive valuation which are prerequisites for the development of communicative competence' (Tomlinson 1994: 121).

Finally, when I designed the course I also chose to use metalinguistic terms, despite the fact that this practice has been contested. For example, Alderson (1997) questions the usefulness of using metalanguage in university language courses and even argues that it may be a way for teachers to assume power. I used metalanguage in the course for three reasons. First, the use of metalanguage has been, as far as I am aware, common practice in Portuguese education both in L1 and L2 courses and would not therefore be new to participants. Second, although in a natural setting L2 learning may not be accompanied by knowledge about language, in an L2 classroom it may be helpful because it allows students to both name and discuss 'language phenomena' (Wallace 1999: 106; see also Frankenberg-Garcia 1991: 100 and Johns 1997: 128). In short, as Wallace (1999: 106) maintains: 'It offers students a means of giving warrant to interpretations in a language which is shared within the classroom community.' Furthermore, metalanguage has been used in recent textbooks and, I assume, in courses which adopt such textbooks. For example, if we look at the index of Swales and Feak's (2000) writing textbook, which was mentioned above, we find various entries which use metalinguistic terms such as: 'articles in complex noun phrases', 'metadiscourse', 'this + noun phrase'; 'reporting verbs'; 'genre', 'hedging' or 'passive voice'. Finally, as I have already mentioned, it
may also facilitate analysis and criticism of other people's writing (Swales 1990: 215; Frankenberg-Garcia 1991: 100; Celce-Murcia and Olshtain 2000: 230).

Three different approaches were considered in constructing the conceptual framework for instruction: a reading strategies approach; a graded reading scheme; and an awareness-raising approach.

• A reading strategies\textsuperscript{15} approach

There was a pedagogical reason for not choosing this approach. While both lecturers and students are proficient L1 readers (i.e. general Portuguese reading), only lecturers are competent academic readers. Thus, the pedagogical reason refers to the lack of relevance of this approach to the participants' needs as it focuses more on the reading process whereas participants' difficulties may be predominantly due to lack of knowledge and/or awareness of the rhetorical structure and specific linguistic devices used in English academic texts.

• A graded reading scheme

This type of approach would have allowed a more individualised learning process and, as participants have mixed language proficiency, they could have progressed at their own pace. This approach would thus have strengthened a more individualised instruction and reflected real life situations as individual reading skills would have been developed. However, this type of training would not have been either feasible or adequate. First, it would have meant a loss of interaction in the lessons. Second, in spite of being an extensive course, the limited number of hours allotted (due to participant availability) would possibly not have allowed enough practice to obtain meaningful results. Finally, it would have been very time consuming to prepare and not feasible within the sabbatical leave I was granted.
• An awareness-raising approach

The most suitable approach for the present study was thus the third one – an awareness-raising approach. In addition to the reasons mentioned earlier in this section, it was also chosen because it could be adapted to accommodate several additional factors: the institutional context (discussed above in 2.1.1); the constraints (e.g. time and participant availability); and heterogeneity of participants (discussed above in 2.1.1 and 2.1.2). The heterogeneity of participants is summarised in the table below:

Table 3.6: Participant similarities and differences.

<table>
<thead>
<tr>
<th></th>
<th>Lecturers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading proficiency in L1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Academic reading competence in L1</td>
<td>Yes</td>
<td>Unsure</td>
</tr>
<tr>
<td>Academic reading competence in English</td>
<td>Yes/No(^1)</td>
<td>No</td>
</tr>
<tr>
<td>Motivation</td>
<td>Long term(^2)</td>
<td>Short term(^3)</td>
</tr>
</tbody>
</table>

\(^1\) Problems due to both proficiency in English and cross-cultural rhetoric.
\(^2\) In the case of lecturers long term motivation is linked with career development.
\(^3\) Students have a short term motivation related to the degree project report they have to write up in order to complete their degree.

Thus, the reading course attempted to cater for the needs of both lecturers and students. The major problem for lecturers is the ‘Englishness’ of academic texts or cross cultural rhetoric, that is, coping with a code that is not completely transparent. Or as Connor (1996: 5) argues: ‘[…] language and writing are cultural phenomena. As a direct consequence, each language has rhetorical conventions unique to it’. In addition to these difficulties students also have limited competence in academic reading. An awareness-raising approach seemed the best way of attending to reading problems in L2 because it would allow participants to work on the development of their skills (e.g. skimming, scanning) while, at the same time, increasing their understanding of the rhetorical structure and discourse conventions of written academic discourse in English.
3.5 Summary

In this chapter, I have discussed several reading models and their implications for the teaching of L2 reading. However, as these accounts of reading focus on individual reader processing they underestimate the relevance of social factors in reading and in written texts. Interactive models and schema theory influence the present study only indirectly. The study also draws partly on socioliterate views, which emphasise readers' and writers' roles and the influence of contextual factors on discourse, reflecting the belief that language and texts are socially constructed. I have also given a brief overview of present trends in EAP/ESP and shown how they influenced my choice of topics for the reading course. Finally, I have outlined the reasons which led me to choose a LA approach for the present study.
Notes to Chapter 3

1 The logogen theory was developed by Morton in the 1960s. This theory is summarised as follows: ‘The neuron has been an influential metaphor for understanding many higher-level aspects of cognition. An important theoretical program that derives from this metaphor is the logogen theory of Morton (1964/1968, 1969). Morton proposed that for each word one is able to recognize, there is a response unit, called logogen, that is sensitive to the set of auditory, visual, and semantic features associated with that word. When the number of features are currently active (i.e. being looked at or recently thought about) exceeds the logogen’s threshold, that unit is automatically activated, and all the features are made available to the rest of the cognitive apparatus. Because logogen activation is automatic and does not require attention, the logogen theory is a theoretical forerunner of automaticity theories of reading’ (Lesgold and Perfetti 1981a: 389).

2 Greenbaum and Quirk (1990: 18) point out that pro-forms are ‘one fundamental feature of grammar’ that provides ‘the means of referring back to an expression without repeating it’. Crystal (1997b: 310) defines pro-form as ‘[a] term used in the grammatical description to refer collectively to the items in a sentence which substitute for other items or constructions. The central class of examples (from which the term is derived by analogy) is pronouns, which substitute for noun phrase.’ From the list of pro-forms provided by Quirk, Greenbaum, Leech and Svartvik (1985: 865) the ones most frequently found in the corpus were personal pronouns (e.g. it, they, them) and demonstrative pronouns (e.g. this, these).

3 Vande Kopple (1985: 87) defines textual metadiscourse as: ‘communication about communication in that they [other kinds of metadiscourse (the ‘textual’)] can help us show how we link and relate individual propositions so that they form a cohesive and coherent text and how individual elements of those propositions make sense in conjunction with the other elements of the text in a particular situation.’

4 According to Vande Kopple (1985: 86-87) interpersonal metadiscourse is defined as ‘communication about communication in that they can help us express our personalities and our reactions to the propositional content of our texts and characterize the interaction we would like to have with our readers about that content.’

5 In another study Mauranen (1993b: 145) refers to metatext as ‘text reflexivity’.

6 Conjunctions are divided into four categories: additive, adversative, causal and temporal.
Halliday and Hasan (1976) consider five types of cohesion: reference, substitution, ellipsis, conjunction and lexical.

According to these authors, adverbials are divided into four categories in terms of their grammatical functions: adjuncts, subjuncts, disjuncts and conjuncts.

Warner (1985: 23-34) proposes seven major classes of discourse connectives: conjunction, causation, example, alternation, conditional exclusion, hedge, and comparison.

On the borderline between grammatical and lexical cohesion is the cohesive function of the class of GENERAL NOUN. We can speak about a borderline here because a general noun is itself a borderline case between a lexical item (member of an open set) and a grammatical item (member of a closed system). The class of general noun is a small set of nouns having generalized reference within the major noun classes, those such as "human noun", "place noun", "fact noun" and the like' (Halliday and Hasan 1976: 274).

Text reference means reference to an extended stretch (larger than noun phrase, at least a clause) of text itself. Reference can be made either to the propositional content or to the textual function of the referent' (Mauranen 1993b: 63).

Francis (1986: 3-4) defines them as follows: ‘A-nouns [anaphoric nouns] are a group of nouns which, first and foremost, fall into a certain semantic class: by virtue of their meaning they can be used metadiscursively; they are nouns which can be used to talk about the ongoing discourse. [...] it must be presented as synonymous with the proposition(s) immediately preceding it.’

The term hedge is used as defined by Hyland (2000a: 88): ‘Hedges [...] like possible, might and perhaps [...] represent explicit qualification of the writer’s commitment. This may be to show uncertainty, and indicate that information is presented as an opinion rather than accredited fact, or it may be to convey deference, modesty or respect for colleagues’ views.’

Low (1996) suggests that questionnaire respondents do not notice (i.e. do not respond to) intensifiers (i.e. boosters) and hedges in most survey questions. Low has labelled this phenomenon as the ‘Lexical Invisibility Hypothesis’.

Researchers have been interested in concepts of skills and strategies and their possible differences for the past four decades (e.g. Davis 1968; Munby 1978; Lunzer, Wait and Dolan 1979; Grabe 1991; Brown 1994). However, skills and strategies are often treated similarly in the literature and in textbooks, without any attempt to clearly distinguish the
two concepts (Moran and Williams 1993: 68; Alderson 2000: 93), and are frequently considered interchangeable (e.g. Grabe 1991: 379; Nuttall 1996: 40). In addition, most reading textbooks 'are based on [a] combined/integrated strategies/skills approach' (Jordan 1997: 144).

Urquhart and Weir (1998) attempt to clarify the main differences between skills and strategies. Firstly, while strategies are reader-oriented, skills are text-oriented, as can be seen in the emphasis given to the text by different skills taxonomies. Secondly, strategies are adopted consciously whereas skills are unconscious decisions because they become automatic (e.g. lexical recognition and syntactic parsing). Finally, in contrast to skills, strategies are a response to a specific problem at a local level, that is, 'local difficulties encountered when reading a text' (p. 98). However, as there is no consensus about what reading skills are and whether they exist as such, it becomes even more difficult to separate the concepts of skills from strategies. This can also be seen, as mentioned above, in the use of the terms interchangeably or as a block (i.e. skills/strategies). In addition, it seems difficult to state clearly the difference between the two concepts since in reading the interaction between the text and the reader cannot be easily separated.
4. Research methodology

In Chapter 2 I discussed the socio-cultural context which informs this study as far as the teaching of English is concerned and in Chapter 3 I considered how my study relates to current theory, research and practice in the four areas on which it draws: reading models, EAP/ESP, reading and writing within EAP/ESP and LA. In this chapter I will focus on the research methodology. Two factors converge in this study: LA as an essential element in skills improvement and my work situation as an English teacher in a college of agriculture where both lecturers and students need to read academic texts in English. My experience as a teacher made me consider whether awareness of certain text features would help agriculture students and lecturers to improve their reading and if there would be any differences between these two types of academic reader. To answer these questions, I decided to design and teach a new course, my research instrument, to collect data.

In the sections that follow, I will look at how this study emerged out of my own teaching practice and the problem of subjectivity that may arise in such a situation. I will then discuss the rationale and the research ideology behind the LA reading course, the strategy of inquiry and the methods (quantitative and qualitative) chosen for analysing data. I will suggest that this work can be considered a case study because I examine a single case in detail in order to deepen my understanding of my own teaching practice, to provide insights into how it could be improved and to find out what can be learnt from it. Next, I will describe how the emergence of new themes during the process of data analysis led to a change in the direction of my research, which made me formulate new research questions. Then, I will explain how these new research questions affected my research perspective and reduced the utility of some of the quantitative methods initially chosen. Finally, I will suggest that the study may be considered to be a mainly qualitative one.
4.1 The teacher as researcher

In recent years, it has been increasingly argued, especially within the framework of action research, a self-reflective form of inquiry, that the teacher should carry out research within the workplace i.e. his/her classroom (e.g. Carr and Kemmis 1986; Kemmis and McTaggart 1988; Nunan 1990; Prahbu 1992; Wallace 1998) implying that ‘the professional development of teachers requires that they adopt a research stance towards educational practice’ (Carr and Kemmis 1986: 2). This form of inquiry is mainly concerned with identifying and overcoming problems, bringing about improvement in practice, or enhancing understanding (Nunan 1992). Within this tradition Kemmis and McTaggart (1988: 5-6) claim that action research has three distinctive features. First, it is implemented by its practitioners, that is, it is teacher-initiated research. Second, it is always carried out in collaboration with other teachers, and third it attempts to bring about change. It has also been argued that action research is an iterative process in which the methods used are progressively refined and changed in a cyclic process of planning, acting, observing and critically reflecting (Carr and Kemmis 1986: 162; Kemmis and McTaggart 1988; Dick 1999).

I agree that both research and teaching can be a form of intervention and furthermore that research may contribute to the improvement of practice. However, my study diverges from action research in two ways. First, it is not collaborative research since it is an individual investigation carried out within a postgraduate research project. However, not everyone agrees that collaboration is the defining characteristic of action research (e.g. Nunan 1990, 1992; Wallace 1998). For example, Nunan (1992: 18) points out that, although action research is often collaborative, the teacher as researcher can also carry out action research alone. Second, according to Carr and Kemmis (1986: 165) my study does not meet one of the minimal requirements for action research, which is the ‘spiral of cycles of planning, acting, observing and reflecting’. I could not and did not follow this spiral process of refining the methods used within an iterative process of understanding as this would have taken a considerable amount of time, which I did not
have. I had two reasons for intervening more dramatically than I would normally do in a teaching situation. First, as discussed earlier, my interest in LA could not be satisfied through an existing English course due to the syllabuses being implemented at present in the college (see 2.1.1.2). Second, I was interested in comparing students and lecturers, which obviously is not feasible in the normal teaching situation.

In a more recent article, Kemmis and McTaggart (2000) discuss participatory action research, which they view as an alternative philosophy of research. The term is used to describe a range of approaches\(^1\) and ‘classroom action research’ (p. 569), comprising both school and university classrooms, is one of them. They argue that:

Participatory action research is a form of ‘insider research’ in which participants move between two thought positions: on the one side, seeing themselves, their understandings, their practices, and the settings in which they practice from the perspective of insiders who see these things in an intimate even ‘natural’ way that may be subject to the partiality of view characteristic of the insider perspective; and, on the other side, seeing themselves, their understandings, their practices, and the setting from the perspective of an outsider (sometimes by adopting the perspective of an abstract, imagined outsider, and sometimes by trying to see things from the perspective of real individuals or role incumbents in and around the setting) who do not share the partiality of the inside view but also do not have the benefit of ‘inside knowledge’ (p. 590).

My study differs from participatory action research in the sense that only I, as researcher, adopted these ‘two thought positions’ while the other participants (i.e. lecturers and students) confined themselves to the insider view and did not try to analyse the situation critically or from the outsider or ‘stranger’\(^2\) (Schutz 1964) vantage point.

Kemmis and McTaggart (2000: 597-598) further elaborate on what they consider the seven distinctive features of participatory action research:

1. It is a social process
2. It is participatory
3. It is practical and collaborative
4. It is emancipatory
5. It is critical
6. It is recursive (reflexive, dialectical)
7. It aims to transform both theory and practice.

As far as these criteria are concerned, my research project complies with features 1, 5 and 7; and partially with features 2, 3, 4 and 6. It complies only partially with feature 2 because in participation as understood in participatory action research both researcher(s) and participants (i.e. co-researchers) have to ‘examin[e] their knowledge (understanding skills and values) and interpretative categories (the ways they interpret themselves and their action in the social and material world)’ (2000: 597) which does not happen in my study as none of the participants were co-researchers. In feature 3, only the first half applies to my study – practical. The reasons why the present study is not a collaborative one have already been mentioned. In feature 4, it could be argued that it is partially emancipatory in the sense that it aims to make students more autonomous learners and more effective readers of academic texts and possibly, in the future to offer a new English course for 4th and/or 5th years students and eventually staff. Or as Wadsworth (1998) wrote: ‘The moving to new and improved action involves a creative ‘moment’ of transformation. This involves an imaginative leap from a world of ‘as it is’ to a glimpse of a world ‘as it could be’.‘ Finally, feature 6 may seem not to apply at all because, although I have attempted to analyse the data in a reflexive way, the constraints of the present study (i.e. duration and participants’ availability) would not have allowed me to implement a cyclical research process. However, because it is my intention to use this course and what I have learnt from it with some modifications in my future teaching (i.e. as an option course for 4th and 5th year students), it could be argued that it is the starting point of research and thus has an element of criterion 6. I shall therefore return to this point in my concluding chapter.
Research cannot only be interventionist and participatory but also a deeper knowledge can be gained from reflecting on one's own teaching practice and the students within one's own working situation. Because of this I accepted the opportunity that I was offered both by the college where I work and by the Foundation for Science and Technology (Portuguese Ministry of Science and Higher Education) within the Programme PRAXIS XXI and the European Social Fund within the III Programme of Community Support, who awarded me a scholarship, to investigate more deeply what happens in my own teaching. I took a sabbatical of three and a half years to do a PhD at the University of Edinburgh, which has given me the opportunity to carry out this study which addresses both my interests and my concerns. In order to implement this investigation I designed and taught the LA course which I thought likely to enhance the understanding both of my own teaching experience within my area of research interest and the impact of the course on the participants. Although the research was not part of the normal syllabus it was nevertheless naturalistic because I remained in my usual workplace and therefore the social context was similar to my normal one. In other words, I had, at least in part, 'to fabricate “normal” roles' (Holliday 2002: 26) as the teaching situation I researched did not exactly match the normal working environment even though it was based on the 'pre-existing social routines and realities' (Hammersley and Atkinson 1983: 94) of the academic life of the college. Thus, this classroom experience is objectifiable as both the participants and the setting were as close to the natural setting as possible. I will return to this question in section 6.2 below. In short, I tried to address reality by taking the opportunity that was offered to me, which has been termed as 'opportunistic research' (Riener, cited in Hammersley and Atkinson 1983: 40). Hence, more than conforming to the action research type of inquiry in its strict sense – i.e. as being participatory, collaborative and involving a spiral of self-reflective cycles (Kemmis and McTaggart 2000: 595) – my research can be considered within the case study tradition (see 4.3).

Another question which arises when the teacher is also the researcher is whether his/her participation in the research setting can be described as participant observation. On the
one hand, it could be argued that my own research was a form of participant observation because I took part in the interaction as a teacher and could observe overtly what was going on (van Lier 1988: 40). On the other hand, since, as I noted above, I set up the course for the purposes of my research, I did not work with existing classes which is expected in ethnographic participant observation (van Lier 1988: 46).

However, my participation did not conform completely to what is understood as participant observation (cf. Atkinson and Hammersley 1994; Tedlock 2000) in which the participant observer has to combine ‘emotional involvement and objective detachment’ (Tedlock 2000: 465). That is, the researcher has to ‘objectify’ his/her experiences and him/herself to be able to assess the validity of the data collected (Vidich 1969: 82, 87). In addition, participant observation tends to centre either on the self or on the other (Tedlock 1991, 2000). In this sense, my study moves away from participant observation toward what has been termed ‘observation of participation’ (Tedlock 1991) since within this cultural anthropological methodology researchers ‘both experience and observe their own and others’ coparticipation within the ethnographic scene of encounter’ (Tedlock 2000: 464). However, if we take a very broad perspective it could even be argued that all social research is a form of participant observation because the researcher cannot carry out any study in the social world without being part of it (Hammersley and Atkinson 1983: 2, 14, 16, 25).

A final issue, related to the fact that I am researching my own teaching practice, is that of subjectivity. I accept that there is a certain degree of subjectivity in my own work but it can still be seen as valuable research. On the one hand, it can be argued that there is an element of subjectivity in all research in the sense that ‘researchers cannot help being socially located people’ and that ‘[w]e inevitably bring our biography and our own subjectivities to every stage of the research process, and this influences the questions we ask and the ways in which we try to find answers’ (Cameron et al. 1992: 5). Furthermore, ‘the subjectivity of the observer should not be seen as a regrettable disturbance but as one element in the human interactions that comprise our object of study’ (p. 5). On the
other hand, being aware of the subjectivity of my own perspective I sought ways to address it. I attempted to minimise subjectivity in three ways:

- multiple methods to collect data such as interviews, questionnaires and observation;
- another researcher who contributed to the study as teacher-observer of two units; and
- different sources of data through the observation of different persons (i.e. students and lecturers).

The set of procedures mentioned above allowed me to carry out methodological, investigator and data triangulation (for a discussion of triangulation see 5.4) which provided me with a means of checking my own interpretations and comparing them with those of others thus giving enhanced credibility to my study. As I mentioned above, I gathered and incorporated different points of view namely:

- my perspective as a teacher-participant;
- my perspective as a researcher attempting to take the vantage point of a ‘stranger’ (Schutz 1964), i.e. trying to create a ‘sense of strangeness’ (Holliday 2002: 13) that would allow me to look at a familiar situation from a different angle;
- the participants’ perspective(s) (i.e. lecturers and students); and
- the teacher-observer perspective.

I anticipated that by allowing different voices to be heard and ‘interweaving viewpoints’ (Lincoln and Guba 2000: 167) I would be able to address the issue of subjectivity and, at the same time, get a richer and more comprehensive picture of all aspects of the study. The analysis and teasing out of different points of view and different data sets also facilitated the emergence of relevant themes and issues, which I had not considered in my initial research questions (see 4.2 below), allowing me to construct meaning(s) and make interpretation(s). Therefore, to reflect this variety of
perspective I use the first person as a device which enables me to separate my own point of view from the other voices in my study which, as Holliday (2002: 143) points out, helps to increase transparency and accountability.

A final issue related to my involvement in the research is that of the participation of lecturers and students. I will therefore briefly comment on this. Participants had a complex attitude towards me as I was simultaneously their colleague/teacher and a PhD student. In other words, although they behaved as learners, at the same time they were conscious of the research and willing to help me (see 6.3.4 for further discussion). In this sense, their participation was slightly different from that in a ‘normal’ course as they were aware that they were simultaneously learners and, to a certain extent, ‘co-researchers’.

4.2 Rationale for the LA reading course

As pointed out in Chapter 2, this study attempts to address the needs of students and lecturers who are obliged to read academic texts in English and also to address the difficulties they are faced with. The rationale behind the course draws partly on the implications of interactive models of reading and schema theory for L2 teaching and partly on the socioliterate views which are discussed above in Chapter 3. Empirical research based on schema theory findings suggests that good readers need to have content, formal and linguistic background knowledge in order to understand a text (e.g. Carrell 1983, 1984a, 1984b, 1984c, 1985, 1987, 1988). In addition, sociocultural schemata, such as awareness of context for different academic genres or reader/writer roles, are also considered fundamental for successful reading (Johns 1997). Lack of any of these schemata may cause partial failure in reading comprehension. The course therefore included tasks using both top-down (e.g. awareness of the structure of journal articles or identifying topic sentences) and bottom-up processing (e.g. attention paid to linguistic cues provided by the text). In other words, both the ‘macropropositional’ and
the ‘micropropositional’ levels of the text were taken into account (Urquhart and Weir 1998).

The rationale also draws partly on socioliterate views since contextual factors appear to be influential in reading, and language and texts can be seen as being socially constructed (this point is discussed further in Chapter 8). The starting point was an investigation of academic discourse features and how they were used rhetorically in texts (see 3.3.3.2 above for a discussion of topic selection and sequencing). However, this interaction in a text only becomes meaningful as far as it relates to different contexts — e.g. the discourse community for which the text was written; the particular genre chosen; or when reading becomes a ‘situated, purposeful activity’ (Gill 2000: 94). The course thus attempted to raise awareness of the relationship between text form (i.e. language conventions of different academic genres), writer’s purpose(s) and social context. Moreover, the writer/reader relationship and roles (e.g. writer’s identity, expected reader and the power and status of the writer) underlie the linguistic devices chosen. Consideration was also given to how the writer shows awareness of the reader (or not) when guiding and orienting, for example, signposting his/her intentions; establishing connections between ideas or parts of the text and strengthening commitment to his/her ideas. Thus, topic presentation and discussion during lessons attempted to raise awareness of the contextual factors which influence discourse (e.g. structure of journal articles) and reader/writer roles (e.g. the use of metatext or hedging).

In short, the LA approach adopted aimed to involve participants in gaining ‘an awareness of the discipline’s symbolic resources for getting things done by routinely connecting purposes with features of texts’ (Hyland 2000a: 145) (for further discussion see 3.4.2 above).

Drawing on EAP/ESP research and practice, the course focused primarily on language (i.e. discourse features and genre) rather than content, as it seemed more relevant to the particular participants’ situation and their learning experience (see 3.3.3.2 for topic selection). First, they already bring content (i.e. subject) background knowledge of their
discipline(s) to the text and are therefore likely to activate the appropriate schemata, which should facilitate comprehension. Thus, content background knowledge can partly compensate for lack of linguistic and formal schematic knowledge, sometimes even allowing the reader to understand a text above his/her level of proficiency (see 9.1). However, content background knowledge alone does not seem to enhance reading efficiency and effectiveness. In fact, readers can often experience difficulty due to failure in perceiving how discourse organises content. This may result either in reading comprehension failure or text misinterpretation. Reading difficulties may also be due to a lack of knowledge of linguistic schemata, especially of those related to academic discourse (see 9.1). As students were likely to lack formal schematic knowledge of academic texts, this was covered in the course. Lecturers, being more experienced in academic reading, are already aware of this but they may not be conscious of how that knowledge may enhance their reading skill. Finally, some attention was also paid to L2 reading strategies (units 1 and 9).

4.3 A research design which combines quantitative and qualitative methods

Larsen-Freeman and Long (1991: 14) argue that the aims of a study should help the researcher to determine which strategy of inquiry and methods to choose:

[... ] what is important for researchers is not the choice of a priori paradigms, or methodologies, but rather to be clear about what the purpose of the study is and to match that purpose with the attributes most likely to accomplish it. Put another way, the methodological design should be determined by the research question.

The above quotation raises the issue of methodologies underlying the choices made in the collection and analysis of data. The choice depends on the research question(s) but several other factors have to be taken into account – the perspective or research ideology, the type of study which it is possible to conduct, the nature of the investigation and the experience of the researcher. The strategy of inquiry I chose for my research was a case
study. As Stake points out, a case study is ‘a choice of what is to be studied’ (2000: 435). Furthermore, it ‘is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances’ (Stake 1995: xi). Moreover, the research setting and the course participants in my own study made it a ‘bounded system’ (Smith 1979, cited in Stake 1995: 2) in terms of time, place and culture, which would be ‘logistically and conceptually manageable’ (Holliday 2002: 38).

Finally, the choice of a case study allowed me to combine both quantitative and qualitative collection methods (Yin 1994: 14; Stake 2000: 435; Robson 2002: 178) to seek answers to my research questions.

Initially I formulated the following research questions, bearing in mind the choice of unit topics (see 3.3.3.2):

1. Is either of the groups (i.e. lecturers and students) more likely to have an improved awareness of the macrostructure of journal articles after instruction? If so, are students more likely to have an improved awareness of the macrostructure of journal articles since lecturers will already have more elaborate schema for the macrostructure?

2. Are participants able to read academic texts more effectively (i.e. by getting more information from the text) and efficiently (i.e. by reading faster) by the end of the course?

3. Do participants develop a better comprehension of the ‘real content’ (Dudley-Evans and St Johns 1998: 11) of academic texts (i.e. the language used in a particular context to convey meaning) by the end of the course?

4. Do participants with a lower level of English proficiency at pre-test stage show more improvement in reading than those with a higher level of English proficiency? Or do
participants show the same improvement irrespective of their initial proficiency level?

5. Which group makes better overall reading progress? Do lecturers make better overall reading progress than students?

6. Is instruction in the macrostructure/textual organisation more beneficial to learners? Or is instruction in micro level features of the text more beneficial to learners? Which group benefits more?

With these research questions in mind, at the outset of this study I considered a research design that combined both quantitative and qualitative methods. In addition to the course I designed and taught there were pre- and post-tests designed to find out whether the reading course contributed to an improvement in participants’ reading ability. There were also warm-up and follow-up tasks for each individual unit. If the direction of the thesis had not been changed, the warm-up task(s) would have been used to ascertain what participants knew about the topic of each unit and the comparison between the warm-up and follow-up tasks would have assessed the effect of each unit on participants. I also intended to compare the results of lecturers with the ones obtained by students because I was also interested in finding out about variations between these different types of reader. I also collected attitudinal qualitative data in the form of questionnaires, interviews, non-participant and participant-observation (see 5.3 and following sections). My intention was that the quantitative data gathered from the pre- and post-tests to show whether there was any improvement in reading after the course, would be complemented by the qualitative data, which would reveal both the attitudes of participants to reading and their responses to the course. I felt that, in addition to giving some indication of the points of view of course participants and the teacher-observer, qualitative data would also help to contextualise the background environment of English that informed the study (outlined in 2.1) and the classroom context (described in Chapter 6). Thus, qualitative methods would have been used initially to ‘[help] to provide information on
context and participants' (Robson 2002: 372) and triangulation would have been used to compare the results from the quantitative analysis with those from the qualitative one. In the course of data analysis, however, new themes emerged, which needed to be addressed in a different manner from the one I had originally envisaged. This made me change the focus of my work and eventually resulted in a reconsideration of my initial research questions and the formulation of new ones:

1.a. To what extent are participants' difficulties related to proficiency in English?

2.1a. Are participants' difficulties related to rhetorical differences between Portuguese and English academic writing styles?

2.2a. What are the cross-linguistic aspects of academic writing that participants had problems with? What is the source of these problems?

3a. Why did participants read texts differently from me? Are there underlying cultural/social/educational reasons for this?

With these questions in mind, my initial emphasis on quantitative methods was no longer appropriate for the research questions. That is, the qualitative data became more important than the quantitative to answer these new research questions (see Chapter 8).

4.4 Qualitative research and the present study

According to Holliday (2002) there are eleven characteristics of qualitative research. I shall consider the present study in relation to each of these. Holliday divides them into Activities, Beliefs, Steps and Rigour:
Activities
a) Looks deeply into the quality of social life
b) Locates the study within particular settings which provide opportunities for exploring all possible social variables; and set manageable boundaries
c) Initial foray into the social setting leads to further, more informed exploration as themes and focuses emerge

Beliefs
d) Conviction that what it is important to look for will emerge
e) Confidence in an ability to devise research procedures to fit the situation and the nature of the people in it, as they are revealed
f) Reality contains mysteries to which the researcher must submit, and can do no more than interpret

Steps
g) Decide the subject is interesting (e.g. in its own right, or because it represents an area of interest)
h) Explore the subject
i) Let focus and themes emerge
j) Devise research instruments during process

Rigour
k) Principled development of research strategy to suit the scenario being studied as it is revealed
(p. 6 – my emphases)

The major difference between the present study and this qualitative research paradigm relates to the fact that the procedures for data collection were not emergent – e) and k) – because the data could not be systematised in context as in j). In addition, although I am concerned with the social context and culture in which the research was carried out, it is
not my main focus in the study, as suggested by a), since it is not an ethnographic study. In addition, c) and d) did not apply initially to my study, but eventually new themes and focuses emerged while I was analysing the data and, as mentioned above, led to the formulation of new research questions. There was thus a shift in emphasis in the study, in that qualitative analysis became more relevant as I addressed emergent questions which could be categorised under the general heading: a conflict of cultures. This conflict will be discussed further in Chapter 8.

Among the similarities to Holliday’s characteristics, I want to emphasise Step g) which led me both to the choice of LA as my main area of interest and to my chosen strategy of inquiry – a case study (see 4.3). That is, I chose to examine in detail a single case to see what could be learned from it. Finally, as suggested in b) the research setting and the course participants were a manageable bounded system in terms of time, place and culture for the study I intended to conduct.

4.5 Summary

In this chapter, I explained how I set out to investigate my own teaching practice and how I position myself in this study – as a practising teacher who set out to research her own teaching. I also presented the rationale for the course I designed, which draws from research on the reading process and EAP/ESP related teaching practice, research on genre analysis and the discourse features of written academic texts. Next, I addressed the issue of research methodology and suggested that this study can be considered a case study which combines quantitative and qualitative methods. At the outset, the emphasis was mainly quantitative. However, as the study progressed and more data was analysed, new themes emerged which led to a change in the research focus and, because I followed up new interesting lines of enquiry, a new set of research questions was formulated. That is, the focus shifted from a predominantly quantitative to essentially qualitative one.
Notes to Chapter 4

1 The other approaches discussed by Kemmis and McTaggart (2000) are the following: participatory research, critical action research, action learning, action science, software system approaches and industrial action research.

2 The term is used to refer to ‘[...] essentially the man who has to place in question nearly everything that seems unquestionable to the members of the approached group’ (Schutz 1964: 96).

3 The term ‘voice’ here is used in the sense Hertz (1997: xi-xii) proposes: ‘Voice is a struggle to figure out how to present the author’s self while simultaneously writing the respondents’ accounts and representing their selves. Voice has multiple dimensions: First, there is the voice of the author. Second, there is the presentation of the voices of one’s respondents within the text. A third dimension appears when the self is the subject of the inquiry.’

4 Some researchers take other approaches to defining cases studies (e.g. Yin 1994). In fact, this definition is not a consensual one and, for example, Yin (1994: 17) considers it to be too broad.
5. Research procedure: introduction to the case study

In this chapter, I will describe how this study started and how I designed and organised my research. I will also discuss the rationale for and development of the course materials. Finally, I will refer to the different methods I used to collect data (the system used for presenting data is described in Appendix 2) and their relation to the reliability and validity of this case study.

5.1 The use of English at the college: the library and the first questionnaires

As a first approach to the setting (i.e. college) I decided to see whether my hunches, intuitions and preoccupations about academic reading had any foundation and were therefore worthy of further investigation. First, in order to have a general idea of how English is used in reading at the college I collected data on the books in English consulted and borrowed from the library.

Secondly, in December 1999 I carried out a target situation analysis1 (i.e. the students and lecturers’ needs at the end of the reading course) by means of two questionnaires (see Appendix 3). I also made a preliminary analysis of a small sample of journal articles both in English and Portuguese (see 3.4.3.1 above) in order to understand not only the discourse of academic texts used in agriculture, but also how the writing conventions differed in the two languages.

The library

In 19982 the library had 875 documents in English (i.e. books, technical and academic journals, copies of journal articles and videos). In the period ranging from 2.01.1998 to 31.01.1998, of the 5,386 books consulted in the library only 244 were in English. The
number of books borrowed for the same period was slightly higher – 444 books. It was, however, not possible to know which books had been consulted or borrowed by the students and which by the lecturers. A brief analysis of the titles of the books in English both consulted and borrowed from the library showed that many of the books were textbooks recommended on the reading lists of different courses.

The college librarian explained to me that most English textbooks were for more specialised courses in the final years of study while core courses relied mostly on Portuguese textbooks. She also stated that ‘our students often come to the library with reading lists given by the lecturers and those lists usually have some books in English. It cannot be said that they love it, but, even so, they consult them and, sometimes photocopy the relevant sections’ (personal communication by email 12.11.1999 – my translation). The number of texts consulted and borrowed suggests that students try to avoid reading in English, which again coincides with the librarian’s view that ‘The numerous journal articles which we possess hardly ever leave the shelves [...] Some journals are in English which makes them, immediately inaccessible for some students [...] our students look for journals mainly in Portuguese or Spanish. The trend, at least until now, is the following: only before writing their degree project report do students look for journal articles’ (personal communication by email 12.11.1999 – my translation). However, bad reading habits seem also to apply to reading in Portuguese. To illustrate this point, I will only mention the fact that in the first week of January 2000, almost at the end of the first semester, approximately 400 students had not yet collected their library cards. It is not possible to assess the situation of lecturers because they are allowed to borrow more books and for a much longer period than students.

The first questionnaires (December 1999)

The aim of the questionnaires was to see whether or not the respondents confirmed my perception of lecturers and students’ need to read and write academic texts in English and/or to improve reading. Two similar questionnaires were constructed: one for the
lecturers and another for the students. Both questionnaires were piloted. The lecturers' questionnaire was piloted with a group of ten lecturers from the Escola Superior de Educação do Instituto Politécnico de Castelo Branco (College of Education of the Polytechnic Institute of Castelo Branco). The students' questionnaire was piloted with 20 second-year students from the Agriculture Sciences–Animal Production.

All lecturers and 3rd, 4th and 5th year students on four different courses, namely Agricultural Sciences–Agriculture; Agriculture Sciences–Animal Production; Forestry; and Natural Resources Management were asked to complete the questionnaire. The reason for selecting these students was that they would be potentially motivated about and in greater need of reading academic texts.

Each questionnaire was composed of two parts. The aim of Part 1 was to assess how English was being used in reading and in writing either by the staff or by the students. Part 2 (non-anonymous) was designed to discover if there were lecturers and/or students interested in signing up for the English course on reading which would be the experimental part of my study (see Appendix 3) in the academic year 2000/2001.

5.1.1 Lecturers' questionnaire: results

The results obtained in the lecturers' questionnaire Part 1 (see Appendix 4), show that 58% of the lecturers had studied English for only three years or less, which may be the reason why 50% had attended a language institute for varying periods of time. This can be explained by the educational system in place before the Revolution (25th April 1974) when French was the first compulsory language from the 5th year of schooling onwards. English was introduced later in the 7th year and studied for only three years by those pupils who intended to opt for a science area in the 10th year. Thus, respondents born before 1963 are included in this group. In short, the results show not only the need to read and/or write in English for academic reasons (only one respondent said he/she did not read in English) but also the effort made to improve proficiency in English by
attending private language schools. It should also be mentioned that both lecturers and students regularly seek help from English teachers asking them to proofread their abstracts (and occasionally research articles) or to translate and/or explain the meaning of words, expressions, sentences or even paragraphs they do not fully understand.

Although 55% of the lecturers answered that they could read technical and scientific texts easily, there was still a large number of respondents who admitted to having some difficulty in reading these texts. In addition, approximately half of the respondents claimed that they read simple texts such as newspapers, magazines and texts on the Internet easily. The frequency of reading texts for work is high; technical books, research articles, scientific books, textbooks and conference proceedings are all above 50%.

Lecturers do not seem to recommend many texts in English to students probably due to the fact that students avoid reading in English. The most recommended texts are technical books and textbooks. However, 67% of the lecturers answered that the bibliography recommended to students carrying out the degree project report differed from taught courses in two ways. Firstly, this bibliography is longer. Secondly, it is more specialised as it relates to the particular topic of the degree research project.

Finally, writing seems to be a major problem, as 30% admitted that they did not write in English, while of the remaining 70%, half thought they had some difficulty in writing technical and scientific texts. Furthermore, from the group of those who write in English 65% answered that they had to write in English for their academic work. Among the texts written in English for academic purposes, conference and research article abstracts are the most common followed by conference papers and research articles. In addition, eight lecturers had written postgraduate works in English (i.e. four their MSc. dissertation and the other four their PhD thesis). In short, it seemed necessary for members of the college staff to read and write in English. The results obtained in Part 2
showed that 30 out of the 40 lecturers who completed the questionnaire were interested in attending the course.

5.1.2 Students’ questionnaire: results

In Part 1, of the 588 students enrolled in 3rd, 4th and 5th years, 275 students answered the questionnaire. The number of students on each course who completed Part 1 of the questionnaire (see Appendix 5) seems to reflect the number of students enrolled in each course. That is, more from both branches of Agriculture Sciences – Agriculture (30%) and Animal Production (29%) – and slightly fewer from the other two courses – Forestry (18%) and Natural Resources Management (18%). As far as language proficiency is concerned, most attended the intermediate level (42%) while the least-attended level was post-intermediate (see note 11 Chapter 2 above for the levels of English), which broadly reflects the usual pattern of distribution on the English courses in the college (see Appendix 4). In general terms, the higher the level the lower the number of students attending the course. In addition, most students (94%) had studied only English at school, which contrasts with the lecturers’ results (52%).

Although 78% of the students claimed to be able to read texts in English, the actual number of participants reading was rather low – only less than 1% of the students always read in English and 10% of the students frequently. 67% either read seldom or sometimes while 2% never read in English. The results seem to indicate that, generally, students read simple texts easily (67%), but as the texts (i.e. advanced textbooks, technical and scientific texts) become more complex the difficulty in reading increases. Moreover, there seemed to be a strong tendency towards reading very little – only 18% of the students frequently read the textbooks recommended by the lecturers and 15% often read research articles. As far as technical and scientific texts are concerned, the figures are even lower. However, 43% of the students claimed that they could read texts on the Internet easily. On the other hand, the 12% of the students who are in employment appeared not to need to read much in English for their professional activity.
I also heard repeated complaints from colleagues that most students avoid reading in English at all costs.

As far as writing is concerned the situation was even more worrying since 85% answered that they never wrote in English and of the remainder only 7% had written anything in English recently. It is envisaged that this figure of 7% corresponds roughly to those who had written the abstract of their degree project report (8%). Finally, 1% said that they wrote other types of texts such as informal letters and emails. These figures show that this situation greatly differs from that of the lecturers of whom 70% claimed that they needed to write in English. Finally only 1% of students had written either abstracts (of research articles or conference proceedings) or research articles or conference proceedings (possibly in joint research with a lecturer, often the supervisor of the degree research project). This is related to the fact that there are only two situations in which students are required to write in English. First, in 1st year, students write short assignments for their English course. Second, at the end of 3rd and/or 5th year(s) they have to write the abstract of their degree project report, which is in both Portuguese and English. However, it is obvious from reading these abstracts that the texts are usually translated from Portuguese. Furthermore, students frequently ask for help with such tasks or even ask friends or other higher level students to write the abstracts for them. This absence of a real need to write in English may account for the questionnaire results mentioned above.

The results obtained in Part 2 show that of the 275 students who answered the questionnaire 93 were willing to attend the course, a number which greatly decreased when the course took place (see 6.3.1). 58% of the students interested in attending the course were in the 4th year and 38% in the 3rd year, which might indicate a certain concern about the degree project report at the end of the course (see Appendix 4). The results obtained indicated that there was a great need for reading academic texts in English on the part both of lecturers and of students. On the other hand, writing in English appeared to be a concern solely of lecturers. In short, the questionnaire results
suggested the desirability of a course on reading and/or writing in English for both lecturers and 4th and 5th year students. However, only reading was eventually chosen for the course because it alone seemed to meet the needs of participants for whom writing in English was either unnecessary or not a priority.

5.2 Course materials and rationale

As discussed in the previous chapter, this study was planned using a research design which combined quantitative and qualitative methods and was, at the outset, predominantly quantitative. Therefore, the course materials were developed mainly within a quantitative paradigm in order to find out how participants' reading skills could be improved through a LA reading course. Figure 5.1 below shows the outline of my research design.

As mentioned above in 3.3.3.2 all the tasks and tests used in the course were piloted by a French researcher, who was doing post-doctoral research at the University of Edinburgh during the summer when I designed the course.

I planned all the units and designed all the course materials with the exception of the Placement Test (i.e. the cloze test referred to below in 7.1). They consisted of pre- and post-tests (see Appendixes 6 and 7), and materials for the nine units (see Appendices 8, 9 and 10).
**Figure 5.1: Outline of research design.**

<table>
<thead>
<tr>
<th><strong>1st questionnaires</strong></th>
<th>(in Portuguese)</th>
<th>&lt;= December 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-course questionnaire</strong></td>
<td>(in Portuguese)</td>
<td>&lt;= November 2000 or January 2001</td>
</tr>
<tr>
<td><strong>Pre-tests</strong></td>
<td>(1 hour each)</td>
<td>&lt;= November 2000 or January 2001</td>
</tr>
<tr>
<td>Placement test (cloze test)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Timed reading of a Portuguese academic text with short answer questions (answers in Portuguese)</td>
<td></td>
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<tr>
<td>2. Timed reading of an English academic text with short answer questions (answers in Portuguese)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Reading of an English academic text which had to be summarised in Portuguese</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Set of questions related to the different unit topics (answers in English)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Course</strong></td>
<td>(9 120-minute lessons)</td>
<td>&lt;= Nov. 2000 to Jan./Feb. 2001 or Jan. to Feb. 2001</td>
</tr>
<tr>
<td>1. Journal articles and textbooks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Reviews, previews and action markers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Connectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Discourse structuring words &lt;= 1st observed and recorded unit</td>
<td></td>
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<tr>
<td>5. Decoding noun chains</td>
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<td>6. Nominal style</td>
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<tr>
<td>7. Hedging &lt;= 2nd observed and recorded unit</td>
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<td>8. Reporting verbs</td>
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<td></td>
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<tr>
<td>9. Thesis sentences and topic sentences</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-tests</strong></td>
<td>(1 hour each)</td>
<td>&lt;= Jan./Feb. 2001 or February 2001</td>
</tr>
<tr>
<td>1. Timed reading of a Portuguese academic text with short answer questions (answers in Portuguese)</td>
<td></td>
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<tr>
<td>2. Timed reading of an English academic text with short answer questions (answers in Portuguese)</td>
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<tr>
<td>3. Reading of an English academic text which had to be summarised in Portuguese</td>
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</tr>
<tr>
<td>4. Set of questions related to the different unit topics (answers in English)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-course questionnaire</strong></td>
<td>(in Portuguese)</td>
<td>&lt;= April 2001</td>
</tr>
</tbody>
</table>

*The second date refers to LL2 (i.e. the second group of lecturers who started only in January 2001)*
5.2.1 Pre- and post-tests

The pre-tests consisted of a battery of different activities designed to gather a variety of data. First, there was a language proficiency test with a cloze format, as mentioned below in 7.1. The first and the second pre-tests consisted of a timed reading of two academic texts of similar length and topic, with short answer questions (Weir 1990: 45; Alderson 2000: 227), one in Portuguese and another in English. For each test there was a linear text broken into sections. At the end of each section there was one short answer question or ‘limited production response type’ of question (Bachman and Palmer 1996: 54), that is, an open-ended question to which a brief response, ranging from one word to one or two sentences, had to be provided. Both the questions and answers were in Portuguese because the use of L1 in writing allowed participants to focus on content rather than on form and L2. Thus, participants were likely to express their understanding of the text better and avoid the use of extracts from the original text. The time allotted to complete each test was one hour.

These tests were intended to measure effective and efficient reading in both languages in order to see whether there was much difference between the two languages and how instruction affected both reading speed and comprehension. When I developed the pre- and post-tests, efficient and effective reading were operationally defined as the ability to read an academic text in the minimal amount of time and with maximal amount of understanding required by the reader’s purpose(s). I also intended to assess participant improvement in reading efficiency and effectiveness using the results of the first and second pre- and post-tests in relation to their proficiency in English before instruction (as measured by cloze test scores).

The third test consisted of reading an academic text in English and summarising it in Portuguese to test understanding of the text. There were two reasons for choosing L1. First, as mentioned above, it allowed participants to focus on content rather than on form and L2. Second, it would be closer to a real life situation, since participants usually take notes in the L1 (for a discussion of the use of L1 in some course tasks see below 6.3.4).
The purpose of this test was to assess whether, by the end of the course, there was any improvement in understanding of the main ideas of the text.

Finally, the fourth test consisted of a set of questions related to the different unit topics. The question format ranged from gap-fill to short-answer tests. This test aimed to assess whether, by the end of the course, participants were more aware of the topics analysed than at the beginning. The post-tests consisted of four tests identical to pre-tests 1 to 4.

5.2.2 Course units

All the units had a similar structure, which was explained to participants at the beginning of the course. The material for each unit (see Appendices 8, 9 and 10) consisted of the following:

- unit plan;
- warm-up: Activities A (task(s) to be completed at the beginning of the session);
- unit handout;
- Activities B (tasks to be completed during the session);
- follow-up: Activities C (task(s) to be completed at the end of the session);
- short feedback questionnaire; and
- short homework questionnaire.

There were three reasons for this unit plan. First, it would create a lesson pattern with which participants would feel at ease and would know what to expect. Second, it would be a time-saving strategy because, although this course can be considered an extensive course, the number of teaching hours was very limited (i.e. 18 hours). Finally, as most topics covered in the course were likely to be unfamiliar and the approach different from ones participants were used to, knowledge of the unit structure would act as a peg onto which participants could hang their developing understanding of the topic. On the other hand, participants did not know the topic of the unit in advance because the warm-up or
diagnostic task (Activities A) aimed to ascertain what participants knew about the topic of the unit. The general comments of the teacher-observer (another teacher of English at the college who did non-participant observation of two course units) confirm that this strategy helped the lessons to flow smoothly:

The lessons follow a pre-determined pattern which has been explained to the participants, thus everyone knows the objective of each task and the procedure to follow.

This methodology seems to facilitate the approach to texts which are not easy to understand and are compact and not easily accessible either graphically or rhetorically (Obs.N. GC – my translation).

Each two-hour lesson started with one or more warm-up tasks (i.e. Activities A) lasting a total of 20 minutes. These were corrected and discussed immediately after completion. The next stage was topic presentation and discussion. At this stage, I distributed a handout on the topic. Whenever relevant, I also highlighted the possible differences or similarities between the writing conventions of English and Portuguese. Although in most cases the choice of unit topics was quite ‘linguistic’, participants did not have difficulty with either the topics or the explanations offered. Where there was a problem, this seemed rather to lie in participants’ perceptions of language and of academic texts and knowledge, which differed from my own perceptions. On this issue the teacher-observer comments:

Although the topic explanations in each unit (more or less theoretical according to the structural aspects chosen) might have been boring for a non-linguistic audience, they were delivered in clear and accessible language, at a good pace, neither too fast nor too slow, allowing the explanations to be understood. However, topic depth requires further reflection (Obs.N. GC – my translation).

In the next stage of the lesson (i.e. Activities B), participants were asked to complete a few tasks which we corrected together after completion. In the last task of Activities B, participants looked for evidence of the unit topic in texts they had found themselves or
were given during the lesson (if they did not bring one). The session ended with a follow-up task(s) (i.e. Activities C) similar to the one done at the beginning of the session. The comparison of both tasks (i.e. Activities A and C) would be analysed after the end of the course to measure the effect of each unit. Both Activities A and C were individual, while Activities B during the lesson were either individual, pair/group work or even plenary. The feedback questionnaire at the end of the session was also individual (Appendix 9).

Ellis (1997: 115-116) suggests seven types of task when discussing the range of options for devising grammar consciousness-raising tasks. The unit tasks included five of these seven types of task (they did not include judgement and rule provision operations):

1. Identification (i.e. learners are invited to identify incidences of a specific feature in the data by, for example, underlining it). [...]

3. Completion (i.e. learners are invited to complete a text, for example, by filling in blanks as in a cloze passage or by selecting from choices supplied).

4. Modification (i.e. learners are invited to modify a text in some way, for example, by replacing an item with another item, by reordering elements in the text, by inserting some additional item into the text, or by rewriting part of it).

5. Sorting (i.e. learners are invited to classify specific items present in the data by sorting them into defined categories).

6. Matching (i.e. learners are invited to match parts of the data according to some defined principle).

Lastly, participants had to complete a very short questionnaire at the end of each session (Appendix 9) so that qualitative attitudinal data could be gathered. In this feedback questionnaire participants were asked to rank statements according to their perception of the usefulness, interest and enjoyment of that particular unit and the perceived progress made. Comments were also possible in the feedback questionnaire.
I decided to include homework. Every week the participants were asked to read an academic text of their choice, so that they would practise reading outside the classroom. They were also then asked to summarise the text in Portuguese to help facilitate their understanding. In addition, they had to fill in a questionnaire (see Appendix 10) which sought to discover whether, while reading, they were aware of the unit topic(s). Participants were required to mark each statement yes, no or unsure. This extended practice at home was justified on pedagogical grounds. The first task aimed to press participants to read as ‘[i]n a basic sense, reading is a performance skill and practice is essential’ (Grabe and Stoller 2002: 70). The second task reflected a real life situation since participants normally read texts in English and then use the information extracted to write notes, texts, essays, papers, articles or, in the case of students, to be assessed in Portuguese; in fact, ‘summarizing is one of the most common strategies required of academic readers’ (Johns 1997: 138). The homework was designed to be as similar as possible to a real life situation. This similarity is illustrated by the following interview extract:

Do you always read texts in the same ways or do you use different strategies depending on the text? Can you give an example?

No... I think that texts in English I think I read them if they are research or technical articles I always read them in the same way. First I skim them and then I see where the interesting parts are and then I make a short summary in Portuguese (Int. S9: Q2.13 – my translation and emphasis).

Participants were asked to bring these summaries to the next session. However, only 20% of the lecturers and 55% of the students completed all the homework and even this not within the suggested timing. For example, a few participants handed in the homework some weeks after the end of the course. The only exception was L13 who completed the homework activities as required. The homework requirement was an important element in the research design as a reading course cannot be effective unless participants spend a considerable amount of time reading. It was set partly to
compensate for the short time available for reading during the sessions, which lasted for only 18 hours in total, but also to give participants the opportunity to read at their own pace and to choose the text length and therefore the amount of practice and effort they were willing to put in. This issue is further discussed below in Chapter 7.

5.2.3 Selection of academic texts used in the course

The texts used on the course were selected as being both relevant and of potential interest for both students and lecturers in the fields of agriculture and environment. These texts varied in their specificity, and therefore difficulty, depending on each participant's background knowledge, as they were drawn from a wide range of academic/technical genres (e.g. textbooks, popularisations, research articles, short communications, review articles and technical books). However, because of the heterogeneity of participants and their different scientific backgrounds (especially the lecturers) and experience in reading academic texts in English it was not possible to find texts that met every participant’s needs. In addition, because participants came from a wide range of fields and I did not know in advance who they would be, there was sometimes a mismatch between participants’ interests and the texts chosen, as illustrated below:

(1a) ‘The time spent reading articles with very specific topics on fields very different from our work and that mean nothing to us. [...] These readings are boring’ (Post-CQ L9: Q6 – my translation and emphasis).

(1b) ‘[What I found the least useful in the course was...] reading texts from areas that scientifically had nothing to do with my knowledge. I am referring in particular to scientific texts which were very specific. All the more general ones were actually very interesting’ (Post-CQ L4: Q7 – my translation).

(1c) ‘I am sorry that most course texts were related to Animal Production, which some days made the course a bit “heavy”’ (Post-CQ S14: Q7 – my translation).
However, S14 was not very consistent in her comments. Two of the texts she chose to summarise for homework rather than being from her own area of studies (i.e. natural resources management) were from animal production, as the titles indicate: ‘Food substrate as environmental enrichment for pigs’ (1HW S14) and ‘Preventing zoonotic diseases in immunocompromised persons: the role of physicians and veterinarians’ (6HW S14). This mismatch of interest in text content was also evident in the topics of the research articles selected for the pre- and post-test, as I jotted down in my notes:

One lecturer asked for a copy of pre-tests 1 and 2 as she was interested in pig science. The other lecturers complained about the topic of pre-tests 1 and 2 and they were not interested in the topic. Lecturers were more sensitive to text topics than students, or at least felt freer to express so. This seems to be related to the relevance of background knowledge as, in general, lecturers felt more difficulties in texts that did not belong to their field. Students sometimes complained but not as often (Pre-T.CN).

Although I asked lecturers to send me copies of academic texts they used either in their courses or their research, I received very few related to forestry and the management of natural resources. Thus, I was constrained by the texts I had access to: either the ones sent by lecturers from Portugal or the ones I found in the libraries of the University of Edinburgh. In these circumstances, it was impossible to overcome the problem. However, a few participants were so interested in some of the texts provided that they made photocopies themselves. To sum up, I had some difficulty in selecting and finding appropriate comprehension texts for the course and experienced the same difficulty when selecting the texts for the pre- and post-tests.

In fact, text selection has been a major concern of EAP/ESP specialists and is related to the ongoing debate on whether EAP/ESP syllabus designers should adopt a wide-angled (e.g. Hutchinson and Waters 1987; Clapham 2001) or a narrow-angled approach (e.g. Horowitz 1990; Johns and Dudley-Evans 1991; Dudley-Evans 2001; Hyland 2001, 2002c). According to Dudley-Evans (2001: 225), the present trend is to include some subject specific teaching:
In recent years the increasing evidence from discourse and genre analysis that there is, in fact, significant variation between disciplines in the way that they structure their discourse, both in writing [...] and in academic lectures [...], has strengthened the case for the inclusion of some specific work in an EAP programme.

In the particular teaching situation I am describing, I included both ‘common core material’ and ‘specific material’ (Dudley-Evans and St John 1998: 152). In designing the course I assumed that lecturers, for example, might expect subject-specific texts to be included, namely the ones they sent me. My expectations were only contradicted twice, as text specificity was mentioned only in L4 and L9’s comments, quoted above, while some participants found the research articles used in post-tests 1 and 2 (whose topic was genetics) difficult to understand (personal communication). My perception during the course was that, while some participants had difficulty in reading most texts due to their poor command of English, others only had problems in reading the texts which were not from their specific field of study or research. This problem could have been partially avoided if more participants had brought their own texts to each session as asked (instead of having to read the one I provided). Then, at least in the last task of Activities B they could have used a text which reflected their interests and/or speciality. I will suggest in Chapter 9 that when the group of learners is so heterogeneous as these course participants were, the material used by all should be less specific. At the same time, participants should always be encouraged to read texts from their own speciality so that they will be able look for the target topics in their own texts.

The teacher-observer seemed to share my perception that some texts might be difficult to understand: ‘This methodology seems to facilitate the approach to texts not always easy to understand both graphically and structurally and which are compact and not very accessible at a first reading’ (Obs.N. GC – my translation and emphasis).

The only other issue that seemed to cause some problems was text length. Two participants (S11 and L10) referred to text length in the feedback questionnaires, which, seems surprising in a reading course. However, this might be explained by the fact S11
was the student with the lowest proficiency (i.e. Beginner) while L10 confessed in the interview that she disliked reading in other languages than Portuguese (Int. L10: Q1.4).

It should also be noted that the criteria for text selection were not the same as those used for my contrastive text analysis pilot study (see 3.3.3.1) where I tried to include only NSs academic texts. That is, the texts selected were not all written by NSs for three different reasons. First, it would be extremely difficult to find a criterion to decide whether the authors were NSs or not (cf. Wood 2001: 78-79). Second, the time constraints I had to design the course together with the academic/technical texts I was able to access limited my choice. Finally, as Wood (2001: 82-83) suggests in a pedagogic model for the natural sciences, texts should come from the practice of scientists rather than non-scientist NSs:

Membership of an international community (apprentice scientist users of ISE [International Scientific English]) makes this much easier than being an apprentice speaker of a language which might seem to be fully mastered only by NS.

What this implies in practice is that teachers of EST [English for Science and Technology] should not be content to use texts written only by NSs, but should also use texts written by NNSs. The ideal is to use texts written by the norm of international research, international teams from different countries made up of both NSs and NNSs. Although it is often impossible with undergraduate students to use actual RAs [research articles] because of the difficulty of the science as well as the language, reports of research written in English by NNSs can be found in general news magazines or more specialist science journals like New Scientist or Scientific American. In addition, many countries have national science journals published in English that can be a source of materials.
5.3 Methods used to collect data

I used a variety of methods to collect data (see below Table 5.1) in order to have a triangulated perspective on the case study under analysis. As mentioned above, the catalogue of all the collected data and the coding system used to refer to the data can be seen in Appendix 2. It should also be noted that in order to preserve confidentiality when I refer to individual participants I will always use the feminine pronoun, as most participants were women.
Table 5.1: Methods used to collect data and data collected.

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Form of the data</th>
<th>The nature of the information gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-course questionnaire (Portuguese)</td>
<td>Written answers to:</td>
<td>Eliciting participants’ comments on their:</td>
</tr>
<tr>
<td></td>
<td>• closed questions</td>
<td>• reading habits and preferences;</td>
</tr>
<tr>
<td></td>
<td>• open questions</td>
<td>• attitudes towards and perception of reading; and</td>
</tr>
<tr>
<td>Post-course questionnaire (Portuguese)</td>
<td>Written answers to:</td>
<td>• reading strategies in both Portuguese and English.</td>
</tr>
<tr>
<td></td>
<td>• closed questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• open questions</td>
<td></td>
</tr>
<tr>
<td>Interviews (Portuguese)</td>
<td>Transcriptions of 11 participants’ interviews</td>
<td>Eliciting 11 participants’ comments on their:</td>
</tr>
<tr>
<td>Pre-tests (Portuguese and/or English)</td>
<td>Written answers to:</td>
<td>• reading habits and preferences;</td>
</tr>
<tr>
<td></td>
<td>• closed questions</td>
<td>• reading skills and goals; and</td>
</tr>
<tr>
<td></td>
<td>• open questions</td>
<td>• reading problems.</td>
</tr>
<tr>
<td></td>
<td>• written summaries in Portuguese</td>
<td></td>
</tr>
<tr>
<td>Warm-up and follow-up tasks done in class</td>
<td>Written answers to:</td>
<td>Participants’ performance in the tasks</td>
</tr>
<tr>
<td>Non-participant observation</td>
<td>Teacher-observer’s notes</td>
<td></td>
</tr>
<tr>
<td>Audiotaping of lessons</td>
<td>Transcriptions of the two recorded lessons</td>
<td>Teacher-observer’s perception of the lessons</td>
</tr>
<tr>
<td>Unit feedback questionnaires</td>
<td>Written answers to:</td>
<td>Participants’ understanding of the topics</td>
</tr>
<tr>
<td></td>
<td>• closed questions</td>
<td>• Teacher/student interaction;</td>
</tr>
<tr>
<td></td>
<td>• open questions</td>
<td>• Types of classroom interaction</td>
</tr>
<tr>
<td>Tasks done at home</td>
<td>Written summaries in Portuguese</td>
<td>Participants’ perception of the:</td>
</tr>
<tr>
<td>While reading questionnaires</td>
<td>Written answers to:</td>
<td>• usefulness,</td>
</tr>
<tr>
<td>Participant observation</td>
<td>My own notes</td>
<td>• interest,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• enjoyment, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• progress of each lesson</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

Main ideas of the text

Participants’ awareness of the unit topics while reading.

My perception of the lessons
5.3.1 Pre- and post-course questionnaires

The pre-course questionnaire (see Appendix 11) was carried out the week before the start of the course (second week of November 2000 and first week of January 2001 for the group which started later) and the post-course questionnaire (see Appendix 12) in April 2001. As they were in Portuguese, both questionnaires were piloted by three NSs of Portuguese. The pre-course questionnaire focused on:

- participants’ reading habits and preferences;
- their attitudes towards and perception of reading; and
- their reading strategies in both Portuguese and English.

The post-course questionnaire focused on participants’ perceptions of their own improvement (or not), the usefulness (or not) of each course topic and what they considered positive and negative aspects of the course.

5.3.2 Interviews

The type of interview (see Appendix 13), I developed can be considered a ‘respondent interview’ because ‘the interviewer retains control throughout the whole process. That is, the locus of control remains with the interviewer at all stages’ (Powney and Watts 1987: 17). It was a ‘tightly structured interview’ as I followed ‘a fairly clear and well-maintained schedule, or pre-organised plan’ (1987: 17), but I sometimes used ‘probes’ that is, ‘supplementary questions or responses […] to get interviewees […] to expand on their response, or part of it’ (Gillham 2000: 46). The interview was divided into three main issue sections covering some of the topics in the pre-course questionnaire:

- reading habits and preferences;
- reading skills and purposes; and
- reading problems.
The interview was piloted with two lecturers, who did not participate in the course, both for content (clarity and possible question repetition) and the equipment. Both pilot interviews took place in a staff meeting room. This room did not seem adequate as there was a very long table and the interviewer and interviewee could not sit at the right angle. The room is also very big and looks rather formal. Thus, the other interviews took place either in a library group study room or in my office. One of the lecturers suggested that two questions were very similar so I removed one of them from the final version of the interview.

The interviews, conducted in Portuguese, were informal and took place with only one participant at a time. Each interview was expected to last up to about 30 minutes – the duration varied between 15 and 37 minutes (L10 and L5 respectively). All those who were interviewed volunteered themselves:

- five lecturers (4 from the LL1 group and 1 from LL2 group) and
- six students (2 from SS1 group and 4 from SS2 group).

All the interviews (except the first student interview) were recorded with three different types of equipment:

1. Tape recorder (Microcassette-recorder M-627V)
2. Minidisk (SONY MZ-R37)
3. Laptop (Compaq Armada 1750)

The first student was only recorded on a micro-cassette and a minidisk as the software for recording in the computer had not yet been installed. This third way of recording was only suggested by a colleague after the first interview because it allowed the interviews to be transcribed more quickly. All interviews were recorded during the first weeks of the course and transcribed while the course was running, so that any doubts could be
clarified with interviewees. It should be mentioned that participants, who showed interest in having a copy of their own interviews, were given copies of the full transcripts.

5.3.3 Pre-tests, post-tests and warm-up and follow-up tasks completed during the lessons

The pre-tests were completed the week before the course began while the post-tests (both described above in 5.2.1) were done the week after the course ended. The comparison of the pre- and post-test results would show whether participants had improved, or not, their reading efficiency and effectiveness.

In the same way, the answers to Activities A (i.e. warm-up tasks) and C (i.e. follow-up tasks) completed before and immediately after the sessions would allow me to find out whether the session had had any effect on participants’ answers to the tasks at the end of it.

5.3.4 Non-participant observation

A sample of two units was chosen for observation – Unit 4 (Discourse structuring words) and Unit 7 (Hedging). There were two reasons for sampling the observed lessons. First, it would have been extremely difficult to have all units observed due to the unavailability of the teacher-observer. Second, it might well have caused what Labov (1972: 209) terms ‘the observer’s paradox’, that is, the teacher-observer’s presence would affect the behaviour of all participants (lecturers, students and myself) and this would be an unusual situation. Van Lier (1988: 39) comments on such situations:

Learners, for whom the L2 classroom after all is a public stage, by and large take such visits in their stride after a while. The teacher, on the other hand, may well find the presence vaguely threatening, and conduct lessons differently because of it. This in turn will have some effect on the
learners, so that an observer may never be able to observe a natural, undisturbed lesson.

In addition, the units selected for observation were not the first ones in the course because I wanted to allow all the participants (including myself) to adjust to the new situation and rhythm. The availability of the teacher-observer also had to be taken into consideration.

The observer was another teacher of English at the college, who had been working there for 11 years. Although she had no previous experience as an observer, she had insider knowledge of both the setting and participants. She knew most lecturers and had taught all the students (14 out of 20) who were not taught by me and knew more students than I did. It was a non-participant observation i.e. she sat at the back of the classroom and took notes. The notes taken were unstructured, descriptive and evaluative. These observed units were simultaneously recorded.

**5.3.5 Audiotaping of lessons**

The units selected for recording were the same ones that were observed as this would allow methodological triangulation. The lessons were recorded with the minidisk used for the interviews. Because they were recorded on a minidisk that I carried with me, in some of the sessions the students’ pair/group work was very poorly recorded or even unintelligible as I moved around the classroom.

Unit 7 of the SS1 group could not be recorded as the microphone developed a fault at the very beginning of the lesson. I then tried to record the session on micro-cassette (Micro-cassette-recorder M-627V) by holding the tape recorder in my hand. However, when I attempted to transcribe it immediately after the lesson it proved impossible as the sound quality was very poor. The remaining lessons were fully transcribed after my return to Edinburgh in April 2001.
5.3.6 Unit feedback questionnaires

The unit feedback questionnaires (described above in 5.2.2) were designed to gather data on participants’ perception of the usefulness, interest, enjoyment, and progress of each unit. Like the other questionnaires and the interviews, they were included to help me with the interpretation of this case study because, as Strauss and Corbin (1994: 274 emphasis in the original) argue: ‘interpretation must include the perspectives and voices of the people whom we study. Interpretations are sought for understanding the actions of individual or collective actors being studied.’

5.3.7 Tasks done at home and while-reading questionnaires

The homework (described above in section 5.2.2) was designed to press participants into having extended periods of individual reading at their own pace, as in real life situations outside the classroom, because the limited number of hours allotted to the course would not allow enough practice time for reading skills to be improved. The while-reading questionnaire (described above in 5.2.2) was used to gather data on whether participants’ believed they had been aware of the unit topics while reading. However, not all participants did the homework as required. This issue is further discussed below in Chapter 7.

5.3.8 Participant observation

The notes I took during my stay in Portugal, based on my course participation and observation, became the written record of my experience and perception of the study. These notes acted as a reminder of what happened and how I interpreted the events in which I was involved and were consequently useful in the writing up of the study. In retrospect, I think I should have taken more and more detailed notes to make my account more complete.
5.4 Reliability and validity

There are two reasons for using ‘multiple methods’ for collecting or ‘triangulation’ (Denzin 1978: 294). First, as Denzin (1978: 294) puts it in his introductory theoretical discussion of sociological methods, triangulation ‘is a plan of action that will raise sociologists above the personalistic biases that stem from single methodologies’. Second, as Denzin and Lincoln (2000b: 5) point out in a more recent article, triangulation ‘reflects an attempt to secure an in-depth understanding of the phenomenon in question’. Thus, the use of triangulated perspectives is an attempt to ensure the validity and reliability of the study. Denzin (1978) has identified four types of triangulation:

- data triangulation, i.e. the use of different data sources. Data triangulation has three subtypes:
  - time triangulation when the observations are sampled over a period of time or at different times,
  - space triangulation when the observations are sampled from different locations,
  - person triangulation when either individuals or groups are observed and compared.
- investigator triangulation, i.e. the use of more than one observer in the same study;
- theory triangulation, i.e. the use of competing theories to analyse the same events;
- methodological triangulation, i.e. the use of different methods for generating data and observing the same events, which includes two forms: ‘within-method’ triangulation and ‘between-method’ or ‘across-method’ triangulation.

In the present study, I used three of the triangulation types mentioned above:

- data (i.e. person subtype as I had groups of lecturers and students);
- investigator (i.e. the teacher-observer in two of the course units); and
- methodological triangulation (i.e. across-method).
The first, person triangulation, introduced a comparative element (i.e. students and lecturers), as I was interested in finding out about reading in an academic context. I also used investigator triangulation because '[t]riangulating observers removes the potential bias that comes from a single person and ensures a greater reliability in observations [...]’ (Denzin 1978: 297 – my emphasis). I triangulated methods of collecting data because as Denzin points out: ‘methodological triangulation involves a complex process of playing each method off against the other so as to maximise the validity of field efforts’ (1978: 304 – my emphasis). Flick (1998: 230) goes one step further and argues that ‘triangulation is less a strategy for validating results and procedures than an alternative to validation [...] which increases scope, depth and consistency in methodological proceedings’. Finally, the use of three types of triangulation allows not only the voices of the different actors to be heard (see 4.1) but also captures the more detached point of view of an observer who is not involved in the research as a participant.

5.5 Summary

In this chapter, I have described how I started my research, outlined the rationale behind the development of the reading course materials and also discussed some of the constraints and problems that arose during the course design phase of my study. Next, I presented the various methods I used to collect data, both qualitative and quantitative. The use of multiple methods of data collection, of different data sources (i.e. persons) and another researcher allowed me to build a system of interconnected data that could be triangulated. This triangulation or ‘process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation’ (Stake 2000: 443) helped to increase the reliability and validity (Denzin 1978) of this work.
Notes to Chapter 5

1 The term is used as defined by Chambers (1980: 29) ‘By language I mean the language of the target situation. Thus, needs analysis should be concerned primarily with the establishment of communicative needs and their realisations, resulting from an analysis of the communication in the target situation – what I will refer to from now on as target situation analysis (TSA) to identify this more restricted sense of needs analysis.’

2 It proved impossible to gather data from 1999 because a new computer programme was installed. With this new programme the records have to be deleted every month so that the computers are not overloaded. It was, however, possible to gather data from 1998 since the printed records were still kept in the college library at the moment I requested that information.

3 The pronouns are always feminine, irrespective of participant gender, in order to preserve participants’ identities as referred to in 5.3.
6. Understanding classroom context

While the macro context of the present study was described earlier, in Chapter 2, this chapter will focus on local issues. I will begin this chapter by briefly describing the academic environment in the college where I work. Then I will look at the participants, including myself as teacher-participant-researcher, their characteristics and group formation. Finally, I will consider some aspects of teacher-participant interaction.

6.1 The college

As mentioned above in Chapter 4, the present study can be seen as opportunistic research in the sense that it was carried out in my own workplace. As a member of the college staff, and therefore an insider, I had the opportunity to research my own teaching by organising a volunteer LA reading course. In this section I will describe the expectations of the institution and the basic assumptions about mutual behaviour in my college.

Types of classes

Students’ and lecturers’ assumptions at the beginning of the reading course were constrained by their experience of classes at the college which are of three types:

- theoretical classes (i.e. lectures);
- practical classes; and
- theoretical-practical classes.

Theoretical classes are non-compulsory lectures which, according to the college regulations, are designed to impart facts, concepts and principles. Although students are usually divided into groups of 20 for other classes, in theoretical classes two or more
groups are often together. Thus, the size of the group attending a theoretical course can vary from 20 to approximately 100 students. These lectures therefore usually take place in a lecture room and are the most formal classes.

Practical and theoretical-practical classes allow the application of methods and techniques based on the facts, concepts and principles discussed in the lectures. In classes of this type groups are usually considerably smaller than in lectures, ideally of no more than 15 to 20 students. However, the reality does not always match this expectation because, as stated in a Eurydice report on higher education 'with the introduction of student/teacher ratios limiting the number of academic staff, institutions have been compelled to increase the use of larger classes, reduce small group teaching and reduce the number of hours of teaching per week' (Eurydice 2000). None of these classes is equivalent to tutorials in the British educational system. Attendance at these two types of class is compulsory (i.e. students must attend at least 75% of the classes otherwise they will fail). Practical classes usually take place either in laboratories or in other parts of the college (such as the forestry nursery, the cowshed or the machinery park). Theoretical-practical classes, of which English courses are an example, take place in classrooms with a traditional seating arrangement, i.e. desks for two students, or occasionally one, in rows (see Appendix 14 for typical seating arrangement in the classrooms). Although it is possible to change this seating arrangement, lecturers very seldom do so. The teaching methods used in these classes can vary a lot. Sometimes the lecturer gives a topic presentation which is followed by some practical tasks or the class may consist entirely of tasks. Students have to work individually, in pairs, groups or plenary depending on the task and methodology chosen.

In addition to these three main types of course, students may also be required to attend conferences, colloquiums or seminars which 'consist of the analysis and discussion, of one or several proposals, presented beforehand, on one topic or several related ones' (Regulamento Interno da Escola Superior Agrária 1999/2000: 4 – my translation). Some
of the courses offered include study trips and/or projects. These projects can be carried out individually or in groups in the class and/or outside the classroom.

**Relationship between lecturers and students**

Within the Portuguese education system, the relationship between lecturers and students tends to be a formal one, although this is gradually changing in some institutions. For example, for students the polite convention for addressing staff is the use of their academic titles and the ‘vous’ form. Lecturers, on the other hand, will usually address students by their first name and in the case of some male students by their family name but without ‘Mr’. Older lecturers sometimes still address students as ‘Senhora’ (i.e. Miss/Mrs) or ‘Senhor’ (i.e. Mr) alone. In this case, if the lecturer uses the student’s name the usual pattern will be: ‘Dona’ (i.e. Miss/Mrs) followed by the first name for female students and ‘Senhor’ followed by family name for male students. In Portuguese women are usually addressed by their first name (with or without title) and sometimes by first and family names while men are usually addressed by their family name only. Although lecturers usually use the ‘vous’ form to address students, at least in my college, many lecturers have started to use the ‘tu’ form. Very occasionally, I have noticed students who are doing their research project in 5th year addressing their supervisors (young supervisors) by their first names and using the ‘tu’ form. I address students by their first names (or whatever name they choose to be addressed by at the beginning of the course). I still use the ‘vous’ form because there is more of a balance if we both use the same form of address. However, subconsciously this may just be a way of maintaining the formality of the relationship. To sum up, there is an unequal power balance as lecturers may address students in a more informal way than students can address them.

Staff are usually available for consultation especially to discuss projects or other lengthy assignments. However, in the college, students often call at lecturers’ offices for impromptu meetings. The reason for this may be the fact that not all students have an email address, despite free access to a computer laboratory, and email is not yet the
standard means of communication between lecturers and students. For example, whenever a change occurred in the reading course I had to telephone students as most had a mobile telephone although not all of them had an email address.

In the classroom, the teaching style can vary a lot but the trend is for lecturers to speak informally and even to use digressions and asides. In a lecture, students can be invited to ask questions or volunteer comments usually at the end or whenever the lecturer feels appropriate. In both practical and theoretical-practical lessons, which tend to be more informal, students are frequently invited to join in a plenary or group discussion of the lesson topic and questions or comments are also welcomed. But whenever a lecturer speaks or a student is making a presentation, other students are expected to listen and not to talk among themselves. However, there is a discrepancy between these assumptions about behaviour and what actually happens as, unfortunately, it is not uncommon to hear students speaking among themselves in a low voice in such situations. Outside the classroom, students and lecturers often chat with each other in the college corridors or bar.

Another point worth mentioning is deadlines. Although students are expected to hand in assessed assignments punctually on a set date, they often ask for extensions and, as far as I know, do not have their marks reduced if work is handed in late. This type of behaviour may explain why on my course only one participant always handed her homework in on time and a few others kept to the deadlines only occasionally (if they handed it in at all).

6.2. Real classes? Real lessons?

As mentioned above in 4.1, the teaching situation in the present study can be seen as naturalistic in the sense that it was carried out in my normal work situation following both the normal conventions of Portuguese academic life and the pre-existing social realities and routines of my college. However, it could be argued that the groups I
formed were not ‘real’ classes since this was not an entirely naturalistic setting because I had created the situation artificially in order to conduct my study. The particular nature of the situation – volunteers on courses with flexible timetables and without assessment – differed from that in any of the existing English courses at the college, all of which are compulsory, assessed, core courses with fixed timetables. Although the particular groups that I taught differed slightly from those in the prevailing classroom culture in the college, as will be pointed out in the sections that follow, the teaching conformed mostly to college norms. In short, the situation can be considered naturalistic since it diverged only in a few small ways from college norms.

6.3 Course participants

The participants were Portuguese students and lecturers from the college. Their division into four groups – two groups of lecturers and two groups of students – will be discussed in the next section (6.3.1). As mentioned in 5.1, an initial questionnaire, which was administered in December 1999 and completed by all potential participants, showed that 30 lecturers and 93 students were interested in attending the course. In June 2000, a second questionnaire was completed in order to confirm the number of participants. However, the exact number of participants was only decided after my arrival in Castelo Branco (November 2000).

Immediately after my arrival, I contacted every lecturer who had enrolled in the course by email, by telephone, or personally to remind them when the course would begin. On the same day, I also contacted every 4th and 5th year class to remind students who had enrolled in the course that it was about to begin. Some participants who had enrolled could not attend the course, or decided not to, while three students who had not previously enrolled asked to participate and were accepted. There was a big drop in the number of participants between June, when 43 students wanted to attend, and November, when only 22 turned up. A further two students dropped out of the course while it was running while 20 students completed it (see Table 6.1). During the first week after my
arrival I was contacted by five lecturers who were interested in attending and had either not replied to emails or had a timetable that was incompatible with that of the course. As a result, a second group of lecturers began in January. Thus, 15 lecturers completed the course (see Table 6.1).

Table 6.1: Number of course participants.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Students</td>
<td>16</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>11</td>
<td>35</td>
</tr>
</tbody>
</table>

4th and 5th year students were invited to participate in the course, but those interested in attending were mainly 5th year students. A possible reason for their interest may be the fact that in the following semester (and last of the course) 5th year students had to write their degree project report. For this research project, students often have to read academic texts published in English, which may account for their greater interest in the course than students from other years. Although, as mentioned above, initially only 4th and 5th year students were invited to attend the course two 3rd year students who showed interest were allowed to participate, although later one of them dropped out (see Tables 6.2 and 6.3). It is also worth noting that students asked whether they could have a course attendance certificate, to which the college director agreed. Finally, it is interesting to note that there were far fewer male than female students. Although I cannot account for this discrepancy, I can tentatively suggest, on the basis of my teaching experience, that my female students are on the whole more hard-working, responsible and motivated students than male ones.

Despite the fact that the course was designed to comprise weekly two-hour sessions to give a total of 18 hours, some groups either had more than one session per week or went for several weeks without lessons (e.g. during exams in January or when the lesson coincided with a public holiday). Finally, despite the fact that attendance at all the
sessions was required, I sometimes had to compensate for absences by teaching an extra lesson to a small group of participants who had missed a particular lesson. Although participants were discouraged from attending any other English classes during my course, at least one person was attending a general English course in a private school.

Table 6.2: Number of students per year and course.

<table>
<thead>
<tr>
<th>Students' year</th>
<th>Forestry</th>
<th>Natural Resources Management</th>
<th>Agrarian Sciences: Animal Production</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd year</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4th year</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>5th year</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

To preserve confidentiality each participant was assigned a code number. Thus, for example, the student to whom number one was assigned is referred to as S1 and lecturer 8 as L8. Furthermore, as mentioned above in 5.3, where I refer to individual participants I will always use the feminine pronoun, as most participants were women. This choice was also made to ensure that the participants' identities were concealed.

6.3.1 Group formation, timetable negotiation and classroom setting

Group formation and timetable negotiation

In the initial research design I had foreseen having two groups, students and lecturers, chosen so that participants could be compared. Although I did not have any difficulty in negotiating the site entry since I was an insider member of staff, there were quite a few problems in obtaining timetable slots for the course. I had asked the Pedagogical Council, which is the committee responsible for drawing up timetables, to allocate me slots for both groups. However, this did not happen probably due to the difficulties they already face in accommodating the existing courses. They sent me student timetables as well as the individual schedules of those lecturers who had expressed interest in the
course. The lecturers’ timetable was agreed by email from Edinburgh after contacting each lecturer. There were two reasons why this approach was not feasible with students: some did not have an email address and some had forgotten to write it down in the questionnaire as required. Student timetables were therefore negotiated after my arrival in Portugal.

Thus, after negotiation, three groups were formed: one of lecturers, which also included the college librarian, (LL1) and two of students (SS1 and SS2). Each group had one session per week. However, the nine weeks of the course were not consecutive and, although each group had the same nine sessions, these were at different times. If a participant could not attend his/her scheduled session, he/she was allowed to attend the same session with another group. As noted above a second group of lecturers (LL2) was formed in January (see Tables 6.3 and 6.4).

Table 6.3: Number of participants per group and course duration.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Initial no. of participants</th>
<th>Drop outs</th>
<th>Final no. of participants</th>
<th>Course beginning</th>
<th>Course end</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS1</td>
<td>11</td>
<td>1</td>
<td>10</td>
<td>24.11.00</td>
<td>16.01.01</td>
</tr>
<tr>
<td>SS2</td>
<td>11</td>
<td>1</td>
<td>10</td>
<td>23.11.00</td>
<td>13.02.01</td>
</tr>
<tr>
<td>LL1</td>
<td>14</td>
<td>4</td>
<td>10</td>
<td>21.11.00</td>
<td>02.02.01</td>
</tr>
<tr>
<td>LL2</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>17.01.01</td>
<td>15.02.01</td>
</tr>
</tbody>
</table>

Table 6.4: Group timetables.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Timetable</th>
<th>Timetable1</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS1</td>
<td>Tuesday 9am-11am</td>
<td></td>
</tr>
<tr>
<td>SS2</td>
<td>Thursday 4pm-6pm</td>
<td></td>
</tr>
<tr>
<td>LL1</td>
<td>Tuesday 2pm-4pm</td>
<td></td>
</tr>
<tr>
<td>LL2</td>
<td>Tuesday 11am-1pm Thursday 11am-1pm</td>
<td></td>
</tr>
</tbody>
</table>

1 This timetable was changed whenever the participants could not attend.

The interval between sessions was not always the same from one group to another because the first three groups had one weekly session while LL2 had two sessions per week. However, sometimes there were two sessions in a week for some of the first three
groups due to participants’ prior commitments, study trips or examinations. There were no sessions in the period between 15.12.00 and 2.01.01 because of the Christmas holidays. Lastly, the session scheduled for the first week after these holidays had to be postponed because many participants were absent.

Classroom setting

Classroom availability was a constant constraint during the course. It was limited because the number of students in the college has increased greatly over the past few years. The fact that all classrooms have a traditional seating arrangement (desks in rows) together with somewhat deficient acoustics made group work more difficult (cf. Pett 1987). Another physical limitation was the lack of space between rows of desks in some of the classrooms, which hindered access to participants (see Appendix 14).

As sessions often had to be rescheduled, especially with students, each group did not always have the sessions in the same classroom. This caused the additional problem of finding an empty classroom whenever a session was rescheduled. Eventually, the librarian kindly allowed me to use the library group study room in such situations, if requested in advance, as a notice had to be hung on the door to inform students that the room would not be available at a particular time on a particular day. This room was more intimate than other classrooms and facilitated pair and group work as each table was for 6 people so participants could interact with each other more easily. However, the library study room had no blackboard. The table below shows classroom occupation by different groups:

| Table 6.5: Classroom occupation: number of lessons per group in each classroom. |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Groups          | Classrooms number |                |                |                | Library study room |
| LL1             | 95 96 98 112 147 148 | 7 2 6 1 | 1 | 1 3 | 3 |
| LL2             | 7 2 6 1 | 1 3 | 3 |
| SS1             | 1 5 3 | 3 |
| SS2             | 2 4 3 | 3 |
The classroom setting seemed to have some effect on the classroom process: the classrooms with traditional seating arrangements did not lend themselves to group work as all the desks were for two people. They also made it difficult for me to get near to some participants, limiting S-T interaction (especially in rooms 112 and 147 because there was no space between rows). In contrast, the sessions that took place in the library group study room, which had a more friendly seating arrangement (i.e. tables for six people), seemed to encourage a more relaxed attitude in participants enhancing communication between them. It also allowed more mobility both for the teacher and the participants.

6.3.2 Lecturers

The lecturers came from different scientific disciplines ranging from mathematics and computer science to agronomy and veterinary medicine. I knew all lecturers except the three who had arrived during the year when I had been absent in Edinburgh. These new lecturers, unlike the others, initially used the ‘vous’ form to address me but at my suggestion changed to the ‘tu’ form. However, if these colleagues had been much older or had more senior positions in the college than me it is unlikely that I would have made such a suggestion. According to Portuguese politeness conventions, people who meet for the first time at work, or in any other formal situation, are expected to use the ‘vous’ form.

Most lecturers had been working at the college for at least seven years. However, the two groups of lecturers were slightly different. All but two of the lecturers in LL1 had been working in the college for a long time while LL2 was composed of fairly new staff members. Another difference was that LL1 lecturers were either older than I was or about my age, while LL2 showed the opposite trend, as most were younger than I was. Despite these differences between lecturers our roles within the institution are fairly
similar. Moreover, if there was any inequality of power at stake, my colleagues were the ones with more power since their participation in the course was voluntary.

Both groups were motivated and participated actively during the sessions. The following examples taken from the notes of the teacher-observer indicate their willingness to participate in every task:

(1a) ‘Participants volunteer to answer. When an answer is elicited from one of the participants, all are attentive and immediately correct any incorrect answer. During the theoretical explanation all were involved and participated, actively answering, and a question which was related to an issue that was within the topic was even asked in English’ (4Obs.N. LL2 – my translation).

(1b) ‘Participants show that they are at ease in the classroom because they use English to make comments about some noise that comes from the ground-floor. Comments in English are made about the key to 7A tasks. Some relevant jokes are made in English’ (7Obs.N. LL1 – my translation).

Some participants in both groups seemed to have difficulty in following some parts of the lessons, probably due to their low proficiency, and would frequently ask for clarification from either peers or the teacher. LL1 would often suggest alternative answers; would offer more accurate scientific terminology (e.g. in noun chain translation tasks based on background knowledge of their research area); and would disagree more frequently as the following observation notes suggest: ‘Many lecturers brought their own text for task 7B-3. This task correction was very cooperative and lively. There is some disagreement about the interpretation which is first expressed in English and then in Portuguese’ (7Obs.N. LL1 – my translation). Although LL2 also volunteered alternative answers, their questions were more frequently for clarification or further explanation on issues related to the unit topic. This slightly different classroom behaviour might be related to the fact that most LL1 participants were not only better acquainted with me but had also had longer academic careers and were thus more likely to be familiar with English academic reading than LL2. However, in the last lessons of the course this LL2 pattern changed. LL1 also differed from LL2 in their preferred working pattern: they
tended to work individually even when the task required pair work, as the observer notes show: ‘Lecturers sit individually [tables are for two], very far apart. [...] Task 4B-2 required pair work but only one pair is formed. Two other lecturers sometimes discuss a point’ (4Obs.N. LL1 – my translation). The following extract from a transcript (the transcription conventions used are described in Appendix 15) also illustrates this point:

T  How is it going? (((low voice)))
   But it is in pairs you have to do it together!
L16  I know!
L5/L16  But I've already done it and I'm seeing if she-/ But she did everything (((L16 laughs)))
L5  ((L5 laughs)) It has to be like this, hasn't it? To see if she- ((L5 laughs)) gets there.
T  ((T laughs)) So you can help a little bit that's the idea of working in pairs.
L5  We'll see (((L5 and L16 laugh)))
(4Transc. LL1)

In this sequence we notice that, contrary to the task instructions and my insistence that the task should be done in pairs, the two lecturers decided to do it individually. L5 completed the exercise first and then, rather than collaborating with L16, decided to check her own performance.

The fact that one group showed a preference for individual work may be explained by the institutional culture of the college. That is, being a lecturer in a college induces self-reliance and the independent working style which impinged on the behaviour of these lecturers in class. LL2 brought their own texts to the lesson more regularly than LL1; however, as the weeks went by fewer lecturers in either group brought their own texts.

The atmosphere in the classroom was relaxed and sometimes it seemed that it was the lecturers who tried to make me feel more comfortable by making witty comments, specially in the recorded sessions in which I felt more nervous than usual. The two transcription excerpts below will illustrate this point:
Can we do group work?

Let's cheat! ((T and L4 laugh))

(Go home and study)

Yes you can use the words in the list.

Right yes... it has to be ((T and L4 laugh))

((L.L are completing task B2 and discussing possible answers; L coughs))

Problem ((very low voice))

Problem ((very low voice))

Okay the first one is already done ((T and L4 laugh))

What a nuisance! ((L4 laughs))

That's why I was reading it so well ((L4 laughs))

[L9 suggests an answer to a question]

Likely to have (carried)

Yes they were likely to have carried.

Likely... to have.

It may be better than likely.

No... Why don’t you like the word likely and unlikely which are so often used in English ((T laughs))?  

It is not very likeable word.

Yes it’s not very likeable ((T laughs))

She likes probably.

You prefer probably and and okay so it’s your person-

((L.L and T laugh))

In the first extract comments of the two lecturers are witty because they pretend they are behaving like ‘typical’ students, i.e. cheating, not studying and not paying attention to what the task required. In the second sequence L3 makes a remark which is funny because it plays on the meanings of the two words – ‘likely’ and ‘like’ – previously used by other participants.
6.3.3 Students

The situation of students was almost the reverse of that of lecturers as I knew only seven of the initial 22 students attending the course, whom I had taught in the 1st year compulsory English course three or four years before. The students came mainly from two courses: Forestry and Natural Resources Management. There was only one student from the Agrarian Sciences Course–Animal Production and no student from the Agrarian Sciences Course–Agriculture.

In addition, it is likely that students experienced their role and mine as unequal because I was already known in the college as a teacher. Although in the present situation, any inequality of power had been to a certain extent suspended since they were volunteers and not ‘ordinary’ students, they still treated me as a member of staff. On the other hand, as with lecturers, in the two observed units both motivation and participation were high among students as the observer’s comments indicate:

(2a) ‘All are very concentrated, asking frequently (at least 8 times) the meaning of words in the text 4A-1. [...] They always show interest and discuss things among themselves in order to complete tasks’ (4Obs.N. SS1 – my translation).

(2b) ‘They concentrate while reading and they participate actively in the correction of task 7B-1 by making many suggestions. [...] They are deeply involved in the [pair work] task and exchange ideas among themselves’ (7Obs.N. SS2 – my translation).

SS1, made up almost exclusively of female students (the only male student attended only seven sessions), was usually a very quiet group. They discussed things quietly with their neighbours or asked for the teacher’s help individually. However, this did not mean they lacked motivation or did not participate. On the contrary, this group was the one that changed fewer lessons from the schedule and the first one to finish the course. Moreover, many SS1 participants brought their own text regularly to the lessons. Finally, this was the only group in which most participants did the homework for every lesson (8 out of 10). In contrast, SS2 was often noisy and members of the group were more likely
to digress or talk among themselves about topics that were not related to the units. They also seemed to be more relaxed in the classroom and would sometimes make witty comments as the transcription excerpt below illustrates:

T    Yes this is <trend> okay?
     Now the next exercise you can do it in pairs in groups of two okay?
S16  This one?
T    Yes.
S18  →  455  Teacher would you like to do the exercise with me? ((S18 laughs))
SS/T  ((SS/T laugh))
T    Okay you can do in groups of three you have two three... I don’t think I am good pair in this situation ((T laughs))

Here we notice that S18’s question is witty because it teases the teacher by purposefully breaking one underlying assumption of ‘classroom rules’, namely that students, not teachers, should complete tasks.

6.3.4 Shared features of lecturers and students

In the two sections above I described some of the differences between lecturers and students. In this section I will focus on what they have in common.

Motivation and involvement

Three factors have to be taken into account when describing participants’ motivation and involvement. First, all those who took part were volunteers and therefore likely to be more motivated and willing to learn than 1st year students who attend compulsory English courses. In other words, course participants can be seen mainly as ‘learners’ (cf. Holliday 1994: 14, 175), since it can be assumed that their main reason for attending the course was to learn, whereas 1st year students may have other motives (e.g. the compulsory nature of the course) amongst which learning may be a minor one. It could be argued that most participants were ‘instrumentally oriented language learner[s]’
since their reason for learning English was a utilitarian one: a way of progressing in either their studies (cf. Jordan 1997: 120) or their academic careers (cf. Kennedy 2001; Wood 2001). Second, participants did not have to deal with the stress that an assessed course usually entails. On the contrary, participants may have felt more at ease and sufficiently relaxed to enjoy the course. Finally, the fact that participants were aware that this course was part of a PhD programme, and that I was the one being assessed, somewhat reversed the usual classroom situation. Indeed this third point may have produced, to a certain extent, the Hawthorne effect, as the students in particular seemed to feel they had to ‘help’ me in my research project. This was clearly stated in the comments of two students in the post-course questionnaire:

(3a) ‘I would like to congratulate you for assembling a selection of very important topics that go beyond the usual content of courses as well as for taking the initiative of interacting with students and making us feel very useful by collaborating in such a study. Thank you for everything you taught us! Congratulations and good luck for the future...’ (Post-CQ S2: Q7 – my translation and emphasis).

(3b) ‘I hope that my participation has been helpful and good luck with your PhD dissertation’ (Post-CQ S6: Q7 – my translation and emphasis).

However, this wish to please and be helpful did not seem to have a great effect on participants’ behaviour. For instance, S2, quoted above, only did the homework for the first four lessons. Other examples can be given: most participants did not do the homework and, if they did do it, often failed to meet the suggested deadline (see below 7.3.10); participants would neither change their plans nor avoid unexpected invitations to attend a lesson (i.e. their private lives always came first) and some lecturers even had to be reminded about the lessons to ensure their attendance.

As mentioned previously, participants were co-operative, motivated, involved and participative during the sessions. The participants’ instrumental orientation toward language learning is clearly stated in some interviews:
It means I have always seen English from this perspective: “What information can I get from it?” (Int. L5: Q3.1 – my translation).

‘[...] this use of the language that we make at present which is, basically, for our advantage, isn’t it? This use depends on our needs... that is for our professional life’ (Int. L6: Q3.1 – my translation).

‘[...] I believe that people read and they read mainly in English when the official language... is Portuguese, isn’t it? They often read because they need, because they have work to do [...] and... people learn because they have to, it is an imposition of daily life. It is not for pleasure, this is my opinion. Often reading is not for pleasure, there are exceptions, obviously, aren’t there? ((Laugh)))’ (Int. S4: Q3.5 – my translation).

Here English is just seen as a tool which can be used either to access information (4a) or to facilitate progress in studies or academic careers (4b) (4c). A general comment on the course by the observer reinforces this view of instrumental motivation: ‘Participants’ motivation is certainly high; otherwise it would be impossible to maintain the proposed working rhythm. Motivation is maintained not only because of the voluntary commitment to attend a reading course, but mainly because of the acknowledgement of the usefulness of understanding the structuring mechanisms of scientific discourse, of which the linguistic topics chosen for each unit are an example’ (Obs.N. GC – my translation).

Furthermore, I had no difficulty in obtaining permission to use all written data produced during the sessions, to have two units observed and recorded or in finding volunteers to be interviewed and taped. This may be linked with ‘Attitudes towards the Learning Situation’ that involve attitudes, in this case positive ones, towards the teacher (Gardner and Smythe 1981: 520) and the desire to help me with my research.

Confidentiality

It is interesting to note that participants saw no reason for anonymity, that is, they did not intend to conceal from me any information related to the course. This was
immediately clear when they completed the pre-course questionnaire in which a written explanation in Portuguese was offered for assigning to each person a number that I, as researcher, would not know. The lecturers, probably because they felt more at ease, immediately dismissed this possibility as both unnecessary and complicated as some were afraid they would forget their number. Thus, they decided to sign each piece of written work with their names almost from the very beginning. Students did not initially comment on this issue, but they never attempted to conceal their numbers when they had to write them. Moreover, those students who were interviewed were willing to let me know their numbers at the end of the course so that the interview could be related to the rest of their data if necessary. Eventually I knew every number because the post-course questionnaire was completed approximately two months after the course when I was already back in Edinburgh. Participants were given the option to email me the questionnaire or to put it in a box in the office of the colleague who had observed the units. The few who did not send them by email either had no email or had problems in accessing the Internet and did not think it important to have their identities concealed.

This came as a surprise to me as I believed some participants would feel more comfortable if I did not know who they were. Three reasons may be suggested for such behaviour. First, participants trusted me because I was an insider in the institution, either as a colleague or as a teacher. Second, they probably felt that what they would write or say would not disclose anything very personal and they had nothing to hide from me since they could only gain from the course. A further reason might be their willingness to help me in my work as they knew the possible success of my study depended on their collaboration. To sum up, the relevant issue seemed to be confidentiality and not anonymity (cf. Gillham 2000: 15-16). I reassured participants, with a statement in Portuguese at the beginning of the pre-course questionnaire, that I would maintain confidentiality as nothing they wrote or said would be revealed to anyone else, or used to assess them and that their names would not be included in the thesis.
Language and type of interaction

Although the use of Portuguese was permitted in the classroom and in some written tasks, it was neither encouraged nor used by me as a time-saving strategy. Atkinson (1987: 242) recommends a limited use of L1 in the classroom for which he offers three reasons: first, it is the learning strategy that most students prefer; second, it can be part of a humanistic approach as it allows students to say what they want; and third it is an efficient use of time. More recently, Medgyes (1994: 67) has mentioned ‘two arguments for the judicious use of the mother tongue’ which basically correspond to Atkinson’s first and third reasons. Cook (2001) continues this debate on the role of L1 in the second/foreign language classroom by pointing out that the argument for maximising the use of L2 in the classroom has led to the view that L1 should be avoided. Cook, in contrast, argues that L1 should be considered a useful classroom resource. He thinks teachers can use it to explain grammar and vocabulary or to manage the classroom while for students it can be ‘part of their collaborative learning and individual strategy use’ (p. 402). Turnbull (2001) agrees with Cook that there is a place for the teacher to use L1, although there are some disadvantages if it is relied on too heavily. He also questions what maximal L2 use means in terms of acceptable or optimal levels of L2 and L1 in the classroom.

Of the three reasons Atkinson offered, the second is the only one that is relevant to this study as my intention was to encourage participant contributions to topic discussion of a particular language issue as much as possible and to compare or to discuss their work (cf. Atkinson 1987: 243; Harbord 1992: 354-355; Holliday 1994: 172). I had three reasons for permitting the use of the mother tongue in the classroom. First, it seemed important that communication should not be inhibited by any inability to express one’s view in English. Second, participants would be likely to express what they wanted to say more clearly. Third, it would be closer to a real life situation, since participants usually discussed academic texts in English in the mother tongue (cf. Shohamy 1984).
A further criterion was sometimes applied. Both L1 and L2 were used when the two languages were being contrasted. However, as I did not encourage the use of L1, I would sometimes use translation although it was a dispreferred strategy. This view is supported by Harbord (1992) who considers that whenever possible an alternative strategy to translation should be used. In an EAP study skills course for Brazilian postgraduates, Holmes and Ramos (1991) went a step further and used Portuguese (L1) as the language of instruction. The reason for this choice was time constraints. The aims of the course were: to help students to read and do research using sources in English in their area of study and to help them to identify and control their own learning strategies by discussing their task procedures (i.e. L2 academic reading, and L1 writing and summarising) with those of other students. I did not choose L1 as medium of instruction for two reasons. First, it would not have been natural either in the teaching context of the college or in the Portuguese education system as English courses are always taught in English: I use Portuguese in my teaching only in certain circumstances, such as when translating a term/expression or clarifying an explanation given previously in English. Second, participants would have been unwilling to attend an English course in which the language of instruction was Portuguese as this would not have met their expectations. In fact, this view is reinforced in the pre-course questionnaire where participants stated that they considered speaking in English the most important skill both for progress in their academic careers or completion of their studies at the college (see Appendix 16). That is, 73.3% of the lecturers and 60% of the students considered speaking in English the most important of the four skills (i.e. listening, reading, speaking and writing).

Furthermore, L1 has also been seen as a resource in L2 reading tests in monolingual contexts (e.g. Shohamy 1984; Atkinson 1987; Gordon and Hanauer 1995; Godev, Martinéz-Gibson and Toris 2002). For instance, Shohamy (1984) suggests that in L2 reading tests in monolingual contexts the use of L1 may facilitate comprehension. That is, when the questions are asked and/or answered in L1, students' understanding and performance of L2 reading tests is positively affected. However, the choice of using L1 on reading comprehension tests should be made bearing in mind both its advantages and
drawbacks (Shohamy 1984; Gordon and Hanauer 1995; Godev, Martinéz-Gibson and Toris 2002).

The recurrent pattern of language use that emerged was the following: participants seemed to prefer to use L1 among themselves while sometimes an effort was made to speak English with the teacher. In fact, as the course progressed and probably the confidence of participants increased, the use of English as a medium of communication increased slightly. For example, in the first session participants generally spoke Portuguese, in particular LL1, while in Unit 7 a considerable effort was made to use English in addition to Portuguese. However, lecturers L10 and L15, for example, always spoke Portuguese unless they were reading an answer. L15 told me that she did not feel comfortable speaking English as she was aware that her command of it was poor. But there was no apparent reason why L10 did not use English in the classroom because in the interview she mentioned that she usually spoke English with her British brothers-in-law and their relatives (Int. L10: Q2.8). The use of Portuguese in pair or group work could also be related to the fact that participants had a common L1 and to the difficulty of managing the interaction appropriately in English (e.g. turn taking, negotiation of meaning or requesting clarification). It is likely that participants found it easier, for example, to take turns, to interrupt each other, or to speak simultaneously in Portuguese. The mother tongue was also preferred when the discussion became more ‘heated’, as arguments were obviously more easily presented in L1. Finally, code switching was frequent as well as the use of both languages in the same sentence.

To sum up, although L1 was allowed, its use was not encouraged and I tried to use it only as a last resort, as I thought participants should get the maximum possible exposure to English. The teacher-observer comments: ‘Participants ask questions in both Portuguese and English, but the answer is always given in English’ (Obs.N. GC – my translation).
Punctuality

Portuguese academic conventions include punctuality, as is clearly stated in the college regulations (Regulamento Interno da Escola Superior Agrária 1999/2000: 7). However, this rule is not always observed either by students or lecturers. Classes are expected to start and finish on time, but the Portuguese are often not very strict and do not see a degree of lateness as inappropriate in academic life. This routine of arriving late, together with the fact that the course was voluntary, might have contributed to the fact that the sessions always started between 5 and 25 minutes later than scheduled (the only exception was SSI’s first session). Unfortunately, this pattern was constant throughout the course and sometimes caused timing problems. I had designed each unit to last 100 minutes and thus left an extra 20 minutes to allow for the different lengths of time it took participants to complete tasks. These minutes were usually ‘lost’ due to this lack of punctuality.

6.3.5 The teacher

I have been teaching English since 1987. My first job was in a secondary school in an inland town. In the school year 1988/1989, I taught for three months in the secondary school where I had been a pupil. This was a big secondary school on the outskirts of Lisbon. At both schools, I had to teach many groups at different levels. The classes were in the morning and afternoon (in the first school there were also evening classes). The reason I had such a variety of groups and levels is that new teachers usually get the timetables which other teachers refuse. At the first school, I had a lot of support from senior teachers (a different one for each level I taught). We planned the term and prepared assessment tests together. As I had not received any teacher training during my BA in modern languages and literature (English and German), this team work was invaluable to me. My initial teaching situation fits well into the general picture offered by Wright and Bolitho (1997b: 173): ‘Many language teachers of all nationalities enter the language teaching profession on the basis of a “philological” first degree […]’.
In January 1989, I started work at the College of Agriculture in Castelo Branco where I am still working at present. I became a permanent member of the college staff after completing a four-year part-time MA in Anglo-Portuguese Studies in Lisbon (approximately 300 km away from Castelo Branco). Obviously, this MA was not related to my teaching work but at the time (1990), as far as I know, there were no MA or MSc courses relevant to my work and this one interested me. It should also be mentioned that in tertiary education in Portugal, lecturers do not usually receive any teacher training. This lack of interest in teacher training and consequently in pedagogical issues is also reflected in the way that lecturers are assessed for career advancement. That is, the reports which lecturers have to present periodically in order to progress in their academic careers privilege lecturers’ research and publications to the detriment of their pedagogical practice.

At the college, I have taught at all of the three existing levels (referred to in Chapter 2) though usually at no more than two simultaneously. I designed the syllabus for the English courses in collaboration with the two other teachers of English. We also had to provide the course materials by selecting or adapting suitable published material or designing our own material where nothing suitable existed, a not uncommon situation for EAP/ESP practitioners (cf. Dudley-Evans and St John 1998: 15). As there were no senior lecturers in English, we had no expert assistance. I read literature on L2 teaching and EAP/ESP and discussed it with my colleagues in order to attempt to improve my teaching practice. As I knew very little about agriculture, for the first few years I had to study the subject extensively. In collaboration with the colleagues who teach English, I looked for English textbooks related to agriculture and the environment; attempted to resolve carrier content (i.e. subject matter) and real content (i.e. language or skills content) problems (cf. Dudley-Evans and St John 1998: 11-12). I also relied heavily on the help of other lecturers, and of some 2nd year students who were studying English, for specialist information about agriculture.
When I first came to the college my view of students' needs was influenced by Hutchinson and Waters' (1987) view of it as I had read their book during my first years of teaching. According to Hutchinson and Waters (1987: 55-58) 'target needs' include what students will have to be able do in the target situation, in this case during their course. I also adopted their subdivision of 'target needs' into:

- 'necessities' (i.e. what the students would have to know to achieve an effective performance in the target situation);
- 'lacks' (i.e. the gap between students' level of English proficiency and the target proficiency);
- 'wants' (i.e. students' subjective needs).

However, the gap between students' 'necessities' and 'lacks' was so wide that almost from the start the 'lacks' became the overriding criterion for syllabus design for my colleagues and myself. Thus, due to the difficulties experienced by students, the basis for syllabus design became a 'deficiency analysis' (Jordan 1997: 26). As noted above in 2.2.1), the proficiency of students in English seldom corresponds to what is expected from secondary school syllabuses. I agree with the teacher-observer view that college students' proficiency in English may have gradually decreased over the past ten years (teacher-observer personal communication 2002). This may be due to the fact that the overall number of Portuguese university students is decreasing due to a fall in the birth rate over the past 20 years and as a result, because there are more places available at universities, the new students we get are weaker than in previous years.

I attempted to pay attention to students’ ‘wants’ usually by asking them in the first lesson of every English course to write down on a piece of paper what they would like to cover. Moreover, whenever possible, I attempted to include these topics and/or grammar points. However, because courses were restructured twice over the years and the number of teaching hours decreased (see 2.1.1.1) it became more difficult to cater for students’ ‘wants’. Sometimes there were conflicting views between students’ perceived needs and
staff (i.e. my colleagues and mine). For example, some students wanted more time to be devoted to spoken English while the courses focused increasingly on grammar, vocabulary and reading and, to a certain extent, on writing because the existing English courses aim to facilitate access to English for reference purposes and thus support agriculture subject-courses. This difference in perception is illustrated, for example, by the results obtained in the pre-course questionnaire. In the second question students had to state how useful each of the four skills was for completing their studies at the college. Surprisingly, 60% of the students considered speaking very important while listening (25%) reading (25%) and writing (15%) scored considerably lower.

The students’ low level of proficiency, time constraints and low motivation discussed in 2.2.1, led me to use a deductive approach to teaching more often than an inductive one. This was especially the case with grammar, where deductive reasoning seemed to meet most students’ expectations, possibly due to their previous learning experience. On this issue Hedge (2000: 147) comments:

Many adults report the need to have the language system laid out explicitly with rules from which they can work deductively. And the reasons might be various. For example, individual cognitive style may have developed from early school-based language learning experiences in which the formal system of rules was set out and deductive approaches were used.

This deductive approach to grammar is often presented in the PPP (Presentation-Practice-Production) model in which exercises tend to be practice exercises rather than cognitive ones. The advantages of a deductive approach are that it saves time and meets student expectations. However, it has several limitations: it is not so challenging for students and its effects might not be as long lasting because the tasks are not so cognitively demanding. In short, although an inductive approach is likely to have better results in the long run it was not possible to adopt such an approach for the reasons mentioned above.
Reflecting on these issues made me think that for the first time I would like to do some research in my own teaching environment in an attempt to meet students' target needs in a different way at a point when they were closer to course completion (i.e. 4th and 5th year instead of 1st year students). It also made me consider what the best way to achieve this would be. The opportunity arose to carry out the present study when I was given sabbatical leave for three and a half years.

Finally, I would like to refer to the particular situation of being a language teacher in a predominantly scientific environment, comparing the problems EAP practitioners usually face with those in my work situation. Johns (1981) carried out a study of the problems experienced by EAP teachers in different parts of the world. He analysed about 100 EAP practitioner questionnaires and listed the five most common problems in order of importance:

1. low priority in timetabling [...];
2. lack of personal/professional contact with subject teachers [...];
3. lower status/grade than subject teachers [...];
4. isolation from other teachers doing similar work [...];
5. lack of respect from students (Johns 1981: 18-21).

In my work situation items 1 and 2 do not apply. However, there is a certain isolation from other teachers doing similar work, as I only have occasional contacts with colleagues from other institution at conferences. Items 3 and 5 seem to apply partially. On the one hand, in relation to my career progress I do not have a lower status which is illustrated by the fact that the Scientific Board of the college gave me a sabbatical leave to do my PhD. This means that my colleagues offered me the same opportunity to do research as is given to other subject teachers thus showing that they value my work. On the other hand, I sometimes feel that some colleagues consider English a less 'scientific' and therefore, a less relevant course and that, if they could, it is most likely that they would abolish the existing English courses. Although none of my colleagues in the
scientific community is unaware of the importance of being proficient in English, some believe it should not be part of the curriculum of a college of agriculture. In this sense, language teachers at the college have a lower status than those teaching other subjects do. Finally, in relation to item 5, although English has the same credits as any other course in the curriculum, students somehow lack respect for English courses because they have no immediate need to use English, and therefore, only appreciate the value of English courses later as referred to in 2.1.1.

6.4 Teacher-participant interaction

As mentioned above in 6.1, the roles of students and lecturers within the institution are different as are their relationships with me. This difference was reflected in the way participants addressed me. Lecturers addressed me by my first name and used the ‘tu’ form, while students used the ‘vous’ form and called me ‘Professora’ (which means both teacher and professor) in conformity with the Portuguese politeness conventions referred to in 6.1. However, this was not an appropriate title as in higher education ‘professor(a)’ should only be used for lecturers who have a PhD. Students are frequently not aware of the appropriate academic title and choose an inappropriate one. Another example is that first year students very often address me as ‘Senhora Engenheira’ (i.e. ‘Miss/Mrs engineer’) as most college lecturers are engineers. The use of an academic title to address lecturers is a convention of academic life, possibly the only one students know, and not a way of deriving ‘considerable satisfaction from formal professorialism’ (Holliday 1994: 61). It is interesting to note that whenever students addressed me in English they would use the word teacher, assuming that it would be a suitable translation for the Portuguese term as the example below illustrates:

S1? → 365 Teacher what does <features> mean?
T <Features>? It’s in a way characteristics ((SS laugh)) things that belong to something.
S4? → Teacher? ((unint)) <features>
(4Transc. SS2)
Despite the use of these conventional forms of address, the fact that the students were not only volunteers but also older than the students attending the compulsory English courses, created a less distant and more informal relationship than in a normal classroom setting as S17 pointed out once (personal communication).

Before commenting in further detail on teacher-participant interaction, I remind the reader that the structure of a typical lesson was as follows:

1. Activities A: warm-up tasks (individual work)
2. Lesson
   2.1 Checking the answers to warm-up tasks
   2.2 The unit handout is distributed and briefly commented on
   2.3 Activities B: tasks completed during the lesson (individual, pair, group or plenary work)
3. Activities C: follow-up tasks (individual work)
4. Answering a short feedback questionnaire (individual work)

On the whole participants were very quiet both during warm-up and follow-up tasks (i.e. Activities A and C). After task completion, they would often volunteer answers to warm-up tasks or would reply whenever asked directly. They usually listened silently to the topic explanation while referring to the handout. The main differences between participants were during Activities B (i.e. the tasks completed during the session). Here SS1 were usually quieter than the other three groups and often asked for individual assistance. In addition, SS1 seldom asked a question in front of the whole class. This SS1 behaviour changed slightly as the course progressed perhaps because they began to feel more confident as a group and thus became more involved. Although lecturers would also ask for individual help they would often ask questions or talk to the whole class possibly because they felt more at ease, as the following transcription extracts indicate:
• Making a witty comment to a colleague
Situation: L9 has the handout with the questions but not the Answer Sheet because another L has three by mistake.

| T  | 465 | [...] L9 have you got this page... the Answer Sheet? |
| L9 |     | No. |
| T  |     | No? Okay. No? Yes you have two there ((T and LL laugh)) Oh! |
| L9 | 470 | Not possible! (really) ((LL laugh)) |
| T  |     | I thought I had given one to each person ((T laughs)) |
| L9/L10 |     | I look to the side ((unint)) / ((LL laugh)) / ((unint)) isn't it? |

(7Transc. LL1)

• Complaining about the text topic
Exercise 7B-2, mentioned in the transcription excerpt below, was a pair-work task. First, participants read notes on the results and discussion of a journal article (i.e. short communication). Next, they were asked to write two short versions of the abstract sentence(s) referring to the results and discussion: one hedged and one not hedged. The topic of the experiment was the comparison of the digestibility of five concentrate ingredients in cattle and sheep. The lecturer’s ‘complaint’ about sheep is due to the fact that L9’s speciality is crop production and horticulture.

| T  | 635 | On page two... here. Page two exercise two. Okay? Okay you have an expe- imagine- you have to imagine you have to imagine you have an experiment to <compare the digestibility of five concentrate ingredients in cattle and sheep>... okay? |
| L9 | 640 | These are the ingredients you have... You don’t need to- Here come the sheep ((T laughs)) |

(7Transc. LL1)

• Use of colloquial expressions

| T  | 716 | You don’t need to tell me the context you can have only the- |
| L3 |     | Is it? (cool) |

(7Transc. LL1)
• Witty comment to another lecturer based on the fact that lecturers are stepping out of
  their defined institutional roles and into student roles which they find incongruous.
  Self-consciousness about this new situation makes the comments funny.

T       Yes you see ((T laughs)) you can say the same thing ((T and LL laugh)) ((unint)) just changing one or two words you can change completely-
L8     →   I'll lend you a red pen so that you can write there that you got an A

((T and LL laugh))

(7Transc. LL1)

The interaction was participant-centred whenever participants were working individually,
in pairs or in groups. On the other hand, the lessons were more teacher-centred when I
was explaining the topic or when the tasks were being corrected or were plenary, so that
the teacher’s agenda could be followed. This did not seem to create the ‘inevitable
conflict between the teacher’s and students’ lessons created by the teacher’s difficulty in
understanding the students’ agenda’ (Holliday 1994: 159). However, there were some
participants who had a somewhat different agenda from me as regards what was to be
learnt from the course and the level of proficiency which was expected (see below 7.1).
In fact, the most relevant conflict which emerged was not the participants’ need to
conform to the teacher’s plan and methodology, as my agenda was explained to them
during the first lesson. It was rather our different perceptions of language, texts (i.e. how
texts are written) and knowledge (i.e. how knowledge is perceived as either
discovered/found or constructed/built). This issue will be discussed in Chapter 8.

The way the unit was planned, and the course materials designed, to a certain extent
defined the interaction between participants. Very few of them initiated interaction
during the warm-up tasks. Interaction would start when participants asked questions
about the tasks they were completing or sought the meaning of an unknown word. Most
of the remaining student-initiated interaction, as the three examples below show,
resulted from questions about vocabulary, task instructions or answers to tasks:
During Activities A
S → 15 What does committed mean? ((very low voice))
T Committed means that you are very much sure about your own ideas okay? It’s the opposite of tentative […] ((very low voice))

(7Transc. SS2)

During Activities A
S6? → Can I write... the beginning and then put dots until the end?
T It is easier for me if you write it all.
S6? Okay.
T Okay because it is easier for me to find them.
S6? Okay.

(4Transc. SS1)

During Activities B
L17 → First we have to be sure that things went well, don’t we?
T 705 And in the other one you don’t want to co-compromise so much. You want to show a little bit more distance towards your results.
L10 We can write a short sentence here, can’t we?
T Yes you don’t need to write much.

(7Transc. LL1)

The explanation of the unit topic was teacher-led and participants usually listened in silence without asking questions or making comments. The handout usually had an awareness task which was done in plenary during topic presentation and initiated by me. A feature of my teacher talk, often referred to in the literature, is the use of ‘we’ statements as joint knowledge markers representing shared knowledge (Mercer 1995, 1999):

T → Okay so today... we are going to talk about a a very special group of words... that are called discourse structuring words and they are called discourse structuring words because they help you to structure to organise... the text the flow of the text we have seen already a bit about the structure of texts in general the organisation how they are organised the different genres and we have seen different signs... that the writers give us through metatext and also connectors which is a type of metatext to help the reader.

(4Transc. SS2)
In both extracts, I refer back to one of the points of a previous unit. The use of ‘we’ statements represents a collective understanding or a common knowledge which can be drawn upon to advance understanding in the lesson.

The IRF pattern of interaction

After the completion of tasks (both in Activities A and B), interaction was mostly teacher-initiated and I tried to elicit answers to the task participants had just completed. From the two transcribed units, the most common pattern used in task correction (immediately after the completion of Activities A and after each task in B) was a three-move exchange, i.e. initiation-response-follow-up (IRF) (Sinclair and Coulthard 1975) which is common to many classroom interactions, particularly those which are of fairly formal and teacher-led type as illustrated below:

<table>
<thead>
<tr>
<th>Activities A</th>
<th>Exchange</th>
<th>Initiation</th>
<th>Response</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>T: Now... S7 can we try number two? What did you get?</td>
<td>S7: A.</td>
<td>T: A. Okay.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>T: Does every one agree with that?</td>
<td>SS: Yes / yes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>T: And S10 for number three. What have you got?</td>
<td>S10: E.</td>
<td>T: E. Okay.</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>T: And... S8 for number... four?</td>
<td>S8: B.</td>
<td>T: B.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>T: And S6 for number five?</td>
<td>S6: C.</td>
<td>T: Okay so there seem to be no more... problems.</td>
</tr>
</tbody>
</table>

(4Transc. SS1)
In Activities A and B plenary (with the exception of the last task B in which participants used their own texts) the answers were checked immediately after completion, and the format tended to be IRF moves as mentioned above. This IRF pattern allowed everyone to check their answers quickly, to know how well they had performed and to clarify any doubts that had arisen during task completion. In addition, the IRF pattern was a time-saving strategy as all but one session began late (see subsection on punctuality in 6.3.4). The correction of Activities A also acted as a starting point for drawing attention to the unit topic. Finally, in retrospect I suppose that the use of an IRF exchange format also allowed me to exert more control over the situation, which gave me a certain sense of ‘security’.

This was, however, not the only IRF pattern found in the sessions. Hall and Walsh (2002) suggest that in teacher-student interaction there are two versions of the pattern, which share the first two moves but differ in the follow-ups. In the first pattern, shown above, the teacher evaluates the quality of participant responses by confirming, repeating, rejecting the response or making the necessary adjustments to the instructional tasks, whereas in the second version the teacher follow-ups have a variety of functions all of
which promote student involvement and participation. That is, in the latter grouping of moves the teacher follow-ups include a range of contributions such as elaboration, reformulation, comments and even requests for clarification, elaboration or justification of the response. However, there are fewer examples of the latter in my data. An example is given below:

T  So the first... thing I would like you to have a look is... you have two sentences in a box... and the two sentences say exactly the same thing but one is taken from a textbook and the other one is taken from a research article. I'd like you to read them and to tell me which one you think is from a textbook and which one is from a research article.

((LL read the two examples))

L10  The second is is the the research.

T  Yes and why do you think so?

L 270  (The textbook is) the first.

L10  The way it is written ((L10 laughs)) no.

(7Transc. LL1)

Here we see that the short evaluative response is followed by a request for justification that serves to promote participant involvement and highlight the differences between the two texts. To recap, the main difference between the two versions of IRF is that the first is only deductive while the second incorporates participants’ contributions and promotes dialogue. The former was more frequent in my whole-group face-to-face interaction, as this deductive work after task completion allowed a quick correction of the tasks. It could be argued that the predominance of the first IRF version here implies a more traditional epistemological stance to learning, although participants were always given opportunities to talk through the topic and contribute themselves both during peer-peer interaction and individually with me. In fact, what is known in the literature as the ‘two-third rule’ of teacher talk (Mercer 1999), which states that teacher talk dominates classroom talk, applies to the whole-group face-to-face interaction in my lessons. In retrospect, it seems that I should have invited participants to qualify or expand their responses more often to provide more opportunities for learning.
It is also interesting to note that occasionally the roles in the IRF pattern were reversed as participants led the interaction. The sequence below, which illustrates this, is a task correction during Activities B in the unit on hedging. The task consisted of rewriting a non-hedged text as a hedged one. L2 did not understand the task instructions because she had not fully grasped the concept of hedging.

<table>
<thead>
<tr>
<th>T</th>
<th>I</th>
<th>Okay and for number three? &lt;this is not true&gt;.</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2</td>
<td>R</td>
<td>Could not... it is the least-</td>
</tr>
<tr>
<td>L14</td>
<td>R</td>
<td>Could not be.</td>
</tr>
<tr>
<td>T</td>
<td>F</td>
<td>Yes.</td>
</tr>
<tr>
<td>L2 → I</td>
<td>Less committed and do not is the same commitment?</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>R</td>
<td>Yes. And we are changing-</td>
</tr>
<tr>
<td>L2 → I</td>
<td>How shall I change it then? What is written here is do not which is something that... should I change it to could not?</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>R</td>
<td>Because... in the original text it was not &lt;do not benefit&gt;.</td>
</tr>
<tr>
<td>L2 → I</td>
<td>So-</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>R</td>
<td>This is an exercise okay?</td>
</tr>
<tr>
<td>L2</td>
<td>F</td>
<td>But I don’t know what’s written in the original text because then this has nothing to do with the degree of commitment let’s say</td>
</tr>
<tr>
<td></td>
<td>→ I</td>
<td>555</td>
</tr>
<tr>
<td>T</td>
<td>R</td>
<td>But you’re not supposed to guess you’re supposed to suggest expressions or words that-</td>
</tr>
<tr>
<td>L2</td>
<td>R</td>
<td>That in a way have the same degree-</td>
</tr>
<tr>
<td>T</td>
<td>F</td>
<td>560</td>
</tr>
<tr>
<td>L2 → I</td>
<td>I’m sorry but I don’t understand this lesson.</td>
<td></td>
</tr>
<tr>
<td>L12</td>
<td></td>
<td>Neither do I today ((L12 laughs)).</td>
</tr>
<tr>
<td>L2 → I</td>
<td>Because hedges as far as I understood are expressions... which create the modulation in the text but give us an idea whether there is commitment or not... and then we have from the greatest degree of commitment.</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>R</td>
<td>Yes but when-</td>
</tr>
<tr>
<td>L2</td>
<td>R</td>
<td>Whether the person agrees with that or not agreeing it’s to know that-</td>
</tr>
<tr>
<td>T</td>
<td>F</td>
<td>No the greatest degree of hedging is when there’s no longer the greatest degree of commitment when you’re not at all sure.</td>
</tr>
<tr>
<td>L2 → I</td>
<td>Right but here [L2 is pointing to the tables in the handout] it went from certainty to uncertainty.</td>
<td></td>
</tr>
</tbody>
</table>
Isn't will hedging? / then this-

No it isn't. It isn't hedging it's the point of certainty and then you start as you let's say go down the list you hedge always because if you say demonstrate you are absolutely sure this isn't hedging.

Alright ((L.12 laughs))

Hedging is a group of expressions which helps us to understand the degree of commitment with which the writer wrote, isn't it? So is total commitment not included in hedging?

I see that was why I didn't understand here it isn't-

I can't change something that I'm sure of for something I'm not sure of-

No this text- this is an exercise right? So this never happens in real life the thing is that the exercise had hedging... I removed it I modified the text.

So I don't want you to guess what was there.... I'd like you to transform this sentence or that expression in such a way that you introduce hedging that the sentence hasn't got and I'd like an alternative now here of course we can't see the context of the text in the... you can't guess what was there can you? The point of the exercise is not to guess but to be able to change something that is certain... change or to be more...aah... thus to be more considerate-

As we like?

Exactly.

Right.

This extended interchange starts with the typical IRF pattern but, from the fifth move onwards, the roles are reversed. That is, L2 initiates, I respond and she evaluates and initiates again and this process is repeated a number of times. As well as stemming from the difficulties L2 experienced in completing the task, this reversed pattern also probably reflects the fact that L2 is herself a lecturer and therefore used to passing down information to students and later asking them to display it accurately. Although during the sequence I do sometimes evaluate L2's comments, she takes the floor again...
immediately after and again initiates. This pattern is repeated several times until L2 is satisfied with the explanations. It also interesting to note that L2 reverses the normal situation in which the teacher has rights over the allocation of turns at talk, interrupting a number of times to seek clarification and develop her understanding of the issue. This shows that some participants are engaging with the issues, thinking and responding and working things out. Although this is the only instance of this pattern in my recorded data, it also occurred in others of the lessons that were not taped.

**Task-work**

In Activities B the tasks were either individual (no interaction required) or pair/group work. I do not have any group/pair work interaction taped because the only microphone was attached to me and I did not remain close enough to any group/pair long enough to have taped their interaction. I walked from group to group, monitoring them, or approached students whenever they asked for assistance. When I approached a pair or small group, the talk sometimes stopped or was interrupted by a comment addressed to me. Students' normal talk was also sometimes redirected by my agenda, when I asked a question or made comments. Therefore, as noted above in 5.3.5, only very short stretches of discourse were taped and because there is a lot of overlapping talk they do not make much sense. From what I observed, the interaction flowed naturally with many participant overlaps. There are not enough examples of peer-peer dialogue in the data to allow analysis of patterns of interaction in the class that are not teacher-led.

This lack of audible recordings of student interaction in classes seems to be a common problem and accounts for the fact that classroom talk which is not teacher-led is under-represented in the literature (Edwards and Westgate 1999). In order to ease this technical problem I would have needed more equipment which would have been very costly. On the other hand, participants would have felt more constrained if they had known that their talk was being recorded and it is unlikely that I would have obtained normally occurring talk.
6.5 Summary

In this chapter, I have looked at various aspects of classroom context and their importance in the research design; the constraints of setting and participants; the interaction between participants and the type of data gathered. Both lecturers and students were co-operative, motivated, involved and participative during the sessions. Another similarity between lecturers and students, one which is rooted in Portuguese culture, was a lack of punctuality, which sometimes caused timing problems in the sessions. Third, all participants both switch and mix codes with an increasing use of English as the course progressed. Finally, teacher-participant interaction did not differ from the usual types of interaction found in classes at the college. That is, the discourse is heteroglossic – most of the time English is used, but sometimes participants either switch to Portuguese or use a mixture of the two languages.

There were, also, however, a number of differences between lecturers and students. Although both groups participated actively during the sessions, asking for clarification or further explanation of issues related to the unit topics, lecturers made more witty comments, disagreed with me more and put forward alternative views to mine. These differences were probably due to the existing institutional relationships between myself and lecturers and students respectively.

In the next chapter, I will first discuss participants’ proficiency in English, which was assessed on the basis of cloze test results. Then, I will analyse the pre- and post-tests. I will also describe how the course sessions ran.
Notes to Chapter 6

1 Whenever the original text is Portuguese the text is written in italics. The original version of the transcripts, with both Portuguese and English as used in the lessons, can be seen in Appendix 1.

2 When I finished my BA degree in 1985, teachers first had to teach for a few years and could only apply for in-service teacher training later (it was difficult to get a place for teacher training and often it would be a long way from the teacher’s home). Now teacher training is part of the degree, with courses at the university and teaching practice in a school within the university area.

3 Looking at the wider Portuguese context Mavor and Trayner (2001: 347) paint a more pessimistic picture: ‘As in many countries, teaching ESAP/FL [English for Specific Academic Purposes/Foreign language] has a marginal status in Portuguese tertiary education’.
7. Preliminary data analysis

In Chapter 6, I described the most salient aspects of classroom context and ways in which they are relevant to the research design. I also outlined the limitations of setting and participants and described the interaction between participants. In the present chapter, I will describe the tests run before (pre-tests) and after (post-tests) the teaching units. In the first section, I will focus briefly on participants’ levels of proficiency in English on the basis of results obtained in a cloze test. Then I will look at the other four pre- and post-tests. Finally, I will give an overview of the nine teaching units.

7.1 The cloze test: levels of proficiency in English

As mentioned above in 5.2.1, the first pre-test was a language proficiency test with a cloze format. In this study, the construct proficiency in English as a foreign language was measured by test scores in a cloze test. It consisted of an open-ended task with a fixed time limit (60 minutes), to assess the maximal amount of correct task completion, which reflected proficiency level in the target language. This cloze test was completed before the course in order to assess levels of proficiency at the outset. 73% of the lecturers scored at levels 6 and 7 (i.e. Intermediate 3 and Upper 1) while 60% of the students scored at levels 4, 5 and 6 (i.e. Intermediate 1, Intermediate 2 and Intermediate 3). Thus, lecturers were not only more homogeneous in their scores but also showed a higher proficiency in English than students (see Figure 7.1).
Students presented the most extreme outliers (S8 and S11 at the lowest values and S5 at the highest value). Both this lack of homogeneity and the low level of English among students was quite surprising, bearing in mind that students had been clearly told that the reading course would deal with academic texts and thus was not a course for beginners. Here the agenda of some participants may have differed from mine as they possibly assumed that, although their command of English was poor, they could still gain something from the course. This point is illustrated by the weakest student’s reply to the question about what participants found most useful in the course: ‘The contact with English’ (Post-CQ S11: Q5 – my translation). Thus, some participants had a different set
of expectations or, as Holliday (1994: 143) puts it: ‘The students want one thing out of the classroom process and the teacher something else’.

In general, participants ranged between levels Intermediate 1 and Upper 1 (see Appendix 17). Due to the fact that participants were volunteers, it did not seem either ethical or appropriate to exclude any participant from the course. Students tended to come with their friends and this may partially account for some students’ low level of proficiency. However, it is clear from the cloze test results that the course was not appropriate for every course participant. That is, low proficiency participants encountered difficulties related to understanding of the content of the units or completion of tasks and tests. Therefore, it seems likely that the benefits that these weaker participants gained from the course were very limited. In 9.2.1, I will suggest that, in order to benefit from such EAP/ESP courses, learners must cross the language threshold level at which they are able to understand academic texts fully (some empirical studies confirm this view see e.g. Laufer and Sim 1985; Clapham 1994).

7.2 Pre- and post-tests

Pre- and post-tests 1 and 2

As described above in 5.2.1, the first and the second pre-tests consisted of a timed reading (60 minutes each) of two academic texts of similar length and topic, with short answer questions, one in Portuguese and another in English. For each test there was a linear text divided into eight sections. At the end of each section there was one short answer question, that is, an open-ended question in Portuguese, to which a brief response, ranging from one word to one or two sentences, had to be provided in Portuguese. The post-tests consisted of two tests with an identical structure to pre-tests 1 and 2.
As noted above in 5.2.3, immediately after the post-tests, some participants complained that the research articles used in post-tests 1 and 2 (whose topic was genetics) were difficult to understand (personal communication). In fact, when I started analysing these tests, I noticed that most participants took longer to do both post-test 1 and post-test 2 than pre-test 1 and pre-test 2, which was possibly further evidence that the post-tests were more difficult. This made me think that I had not been rigorous enough in text selection and had paid insufficient attention to text difficulty. Three reasons may be put forward to account for this. First, I had access to only a limited number of research articles on the same topic in both Portuguese and English. This is because I was unable to go Portugal to look for texts myself, due to time constraints when I was designing the tests, but had them sent to me from the college library. This greatly limited the choice of texts. Second, because of my background in another discipline and consequent limited knowledge of the topics in these research articles, I did not fully realise that neither the topics nor the contents of the post-test research articles were equivalent in difficulty to the pre-tests. This raises the issue of the problems that may emerge in EAP/ESP contexts from the fact that students and teachers come from different disciplinary cultures and therefore have different types of background knowledge, expectation and understanding of texts. This issue will be discussed in more detail in Chapter 8. Finally, another shortcoming of my research plan was the lack of piloting, as the tests were only piloted with one person, as referred to above in 5.2. In short, the lack of equivalence between these two pre- and post-tests invalidated their utility as research instruments and, therefore, led me to discard them.

Pre- and post-tests 3

The third test, mentioned above in 5.2.1, consisted of reading a very short research article in English and summarising it in Portuguese. It was designed to test understanding of the main ideas of a text and the time allotted to complete it was one hour. On the answer sheet participants were provided with a table divided into five sections (i.e. introduction, objectives, materials and methods, results and discussion) so
that they would not forget to summarise any section of the article. Participants were also
given draft paper so that they could write notes and an outline or first draft of their
summaries. The post-test consisted of a test with an identical text to the pre-test on the
same topic, written by the same authors and published in the same journal. The
summaries were analysed using as models two summaries written in Portuguese by a
lecturer at the college, who is an expert in the field and did his PhD at a British
university.

The assessment method I used was holistic, that is, I assigned a single score to each
summary based on an overall impression. I developed holistic band descriptors,
operating on seven-levels, which gave a global impression of the summary (see Table
7.1). I chose a holistic assessment method instead of an analytical scale because I was
not attempting to assess participants’ writing but rather to test their understanding of a
text (see, for example, Weigle 2002 for an overview of types of rating scales used for the
assessment of writing and arguments for and against their use). In fact, the choice of
Portuguese instead of English was made to eliminate the risk of testing writing and
reading skills simultaneously (Alderson 2000: 236), and to make the task more
meaningful and closer to a real life situation. It did not, therefore, seem necessary to give
different scores to aspects of writing such as mechanics, language use or vocabulary,
although I will briefly comment on these below.

The results of test 3 suggest that there were two main changes after instruction. First,
most participants reduced the number of words used, as shown in Figures 7.2 and 7.3.
Second, almost half of the participants improved their summary writing, that is, 60% of
the students and 33.3% of the lecturers moved up at least one band on the rating scale
(see Appendix 18). Although it does not necessarily signify any improvement in
understanding of the main ideas of the text and/or ability to separate relevant from
irrelevant ideas, the first change may indicate an increased awareness of the importance
of conciseness in summary writing.
Table 7.1: Holistic descriptors for marking the summary.

<table>
<thead>
<tr>
<th>Mark</th>
<th>Descriptor for summary writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fulfils the requirements of the summary</td>
</tr>
<tr>
<td></td>
<td>• Selects relevant information/ main ideas</td>
</tr>
<tr>
<td></td>
<td>• Communicates the message clearly and concisely, i.e. properly represents the original text</td>
</tr>
<tr>
<td>2.</td>
<td>Fulfils most requirements of the summary</td>
</tr>
<tr>
<td></td>
<td>• Selects most relevant information/main ideas</td>
</tr>
<tr>
<td></td>
<td>• Communicates the message clearly and concisely, i.e. properly represents the original text</td>
</tr>
<tr>
<td>3.</td>
<td>Partly fulfils the requirements of the summary</td>
</tr>
<tr>
<td></td>
<td>• Fails to select most relevant information, i.e. some information is missing and/or unnecessary</td>
</tr>
<tr>
<td></td>
<td>• Communicates the message, or most of the message, clearly, i.e. partially represents the original text</td>
</tr>
<tr>
<td>4.</td>
<td>Partly fulfils the requirements of the summary</td>
</tr>
<tr>
<td></td>
<td>• Fails to select most relevant information, i.e. a lot of unnecessary information</td>
</tr>
<tr>
<td></td>
<td>• Communicates the message, or most of the message, clearly but not concisely</td>
</tr>
<tr>
<td>5.</td>
<td>Fulfils few requirements of the summary</td>
</tr>
<tr>
<td></td>
<td>• Fails to select most relevant information, i.e. information is missing and/or unnecessary information</td>
</tr>
<tr>
<td></td>
<td>• Poor sentence construction leads to inadequate representation of message content in one or more sections</td>
</tr>
<tr>
<td>6.</td>
<td>Fulfils few requirements of the summary</td>
</tr>
<tr>
<td></td>
<td>• Fails to select most relevant information, i.e. information is missing and/or unnecessary and one or more sections is/are almost a literal translation of the text</td>
</tr>
<tr>
<td></td>
<td>• Poor sentence construction leads to inadequate representation of message content in one or more sections</td>
</tr>
<tr>
<td>7.</td>
<td>Summary is inadequate</td>
</tr>
<tr>
<td></td>
<td>• Unable to select relevant information/main ideas, i.e. too close to the original text or essentially literal translation of the text</td>
</tr>
<tr>
<td></td>
<td>• Poor sentence construction leads to inadequate representation of message content</td>
</tr>
</tbody>
</table>
Figure 7.2: Histograms of lecturers’ summary number of words.

Figure 7.3: Histograms of students’ summary number of words.

The histograms above show that after instruction there was a considerable decrease in the number of words used by participants. There were only five lecturers who did not reduce the number of words. Although these five summaries were longer or, in one case, the same length (i.e. 170 words), this increase was not meaningful because the post-test
summaries were still short – 174 words (L11), 148 words (L14), 107 words (L15). The exception was L12's 240 word summary. Reduction in student summary length was more marked than that of lecturers. The likely reason for this difference is the fact that students have far less experience of reading and writing academic texts than lecturers.

The second and most relevant change was an improvement in summary writing after instruction – students 60% and lecturers 33.3%. The improvement was measured in terms of the number of bands that each participant moved up on the rating scale. For example, zero means no improvement, 1 means that the participant(s) moved up one band (e.g. from band 6 to band 5), 2 means that the participant(s) moved up two bands (e.g. from band 4 to band 2) and so forth. As expected, students made greater improvements in their summaries than lecturers (see Appendix 18). Three different factors are likely to account for these results. First, as mentioned in the previous paragraph, students read less academic texts than lecturers. Second, they have more difficulty in selecting the main ideas and perceiving the relationships between the various parts of the text and/or argument than lecturers. Finally, many students misunderstood what they were required to do in the pre-test, that is, they made almost a literal translation of the article instead of summarising it. This misunderstanding was also a feature of some of the summaries written at home (see below 7.3.10). In short, students had poorer results than lecturers both before and after instruction. However, despite this, students showed more improvement in both conciseness (i.e. number of words used) and accuracy in summary writing.

I will now comment briefly on other aspects of the summaries, as there were a few problems with mechanics, language use and vocabulary. Students made several spelling mistakes or errors of agreement and had problems with verb tense, sentence structure and use of punctuation. In addition, they used abbreviations and either forgot to accentuate words or accentuated words unnecessarily. Lecturers also exhibited these problems but to a lesser extent. Students also wrote in a less academic, in particular a less nominal, style than lecturers.
Another noticeable vocabulary problem was correctness in word choice. Some participants had difficulty with technical vocabulary if their area of research or study was different from the one in the article (i.e. crop management). This is related to the importance of background knowledge (discussed above in 3.1.2.5), which 'is not just an extra resource' but also 'a filter through which we view all texts' (Urquhart and Weir 1998: 114). This lack of background knowledge is illustrated by:

- wrong word choice/translation;
- use of scare quotes to show awareness of possible inaccuracy in word choice;
- inability to distinguish similar terms.

For example, the two mathematicians in the group of lecturers had the first two types of problem in their summaries, even though their summaries were otherwise good. One translated ‘spawn’ as ‘pós’ (‘powder’) and the other ‘cultivated mushroom’ as ‘criação de cogumelos’ (‘mushroom breeding’) and ‘agar medium’ as ‘agar medio’ (‘agar average’). The former also used scare quotes with the word ‘pós’ to denote that the word choice might not be the most appropriate as, in fact, it was not. The third problem is illustrated by S20’s use of the term ‘pesticida’ (‘pesticide’) and ‘fungicida’ (‘fungicide’) as if they were synonymous. Obviously, this student was not from the field of agriculture, as he did not pay attention to the difference between the two terms.

In short, it can be suggested that improvement in summary writing (i.e. 33.3% of the lecturers and 60% of the students) may be due to an improvement in reading skills, since participants were not taught how to write summaries during the course.

Pre- and post-tests 4

The fourth test consisted of a set of tasks related to the different unit topics and, like all other tests, lasted one hour. Because there is no ideal test format, since all approaches have some limitations and none can fulfil all the different purposes for which students
might be tested, I used a variety of formats, ranging from dichotomous items to multiple matching. As Weir (1990: 42) comments: `Given the limited state of knowledge concerning the effect of test formats, the only practical approach at present is to safeguard against possible format effect spreading the base of a test more widely through employing a variety of valid, practical and reliable formats for testing each skill.' Table 7.2 shows the outline of the task types in relation to course topics. As noted above in 5.2.1, this test aimed to assess whether, by the end of the course participants were more aware of the topics analysed than at the beginning. The post-test consisted of a test with an identical structure to the pre-test.

Table 7.2: Pre- and post-tests 4: task types in relation to course topics.

<table>
<thead>
<tr>
<th>Items</th>
<th>Course topic</th>
<th>Task types</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Journal articles and textbooks</td>
<td>Identifying type of text (genre)</td>
</tr>
<tr>
<td>2</td>
<td>Reviews, previews and action markers</td>
<td>Labelling different sentences</td>
</tr>
<tr>
<td>3</td>
<td>Connectors</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>4</td>
<td>Discourse structuring words</td>
<td>Choosing one of two alternatives</td>
</tr>
<tr>
<td>5</td>
<td>Noun chains</td>
<td>Choosing one of two explanations</td>
</tr>
<tr>
<td>6</td>
<td>Nominalisation</td>
<td>Matching terms with their definitions</td>
</tr>
<tr>
<td>7</td>
<td>Thesis statement</td>
<td>Choosing the research article title from five given titles after reading the introduction to the research article. Underlining the sentence(s) that helped with the previous choice</td>
</tr>
<tr>
<td>8</td>
<td>Reporting verbs</td>
<td>Choosing in which of two sentences the author is less committed to the proposition</td>
</tr>
<tr>
<td>9</td>
<td>Topic sentences</td>
<td>Matching given topic sentences with paragraphs</td>
</tr>
<tr>
<td>10</td>
<td>Hedging</td>
<td>Ranking sentences according to tentativeness of the statement</td>
</tr>
<tr>
<td>11</td>
<td>Journal articles and textbooks</td>
<td>Labelling paragraphs with headings given in a box</td>
</tr>
<tr>
<td>12</td>
<td>Connectors</td>
<td>Replacing the connector in the sentence by another connector (connectors not provided)</td>
</tr>
<tr>
<td>13</td>
<td>Nominalisation</td>
<td>Writing the noun corresponding to an action or process defined</td>
</tr>
</tbody>
</table>
The results of pre-test 4 show that participants were able to complete a number of tasks successfully before instruction (see Appendix 18). This suggests an implicit knowledge of some course topics since, in the feedback questionnaires, most participants admitted that the topics were new to them (see Appendix 19). Post-test results suggest that this implicit knowledge was greater in the case of lecturers. That is, in the answers to several questions such as questions 1 (on genre); 4 (on discourse structuring words) and 5 (noun chains), the results after instruction were either similar to or only slightly better than before instruction.

However, both lecturers and students showed improvement in questions 2 (on reviews, previews and action markers) 6 and 13 (on nominalisation), 8 (on reporting verbs) and 9 (on topic sentences). Another noticeable similarity between students and lecturers was their difficulty in ranking sentences according to the tentativeness of the statement (question 10). This is likely to be related to their perception of hedging, which is discussed below in 7.3.7 and 8.7.3. Another difficulty both groups experienced was in choosing the title for a research article after reading the article introduction (question 7.1) even though they showed improvement when underlining the sentence(s) that helped with that choice (question 7.2). That is, less information was missing and/or unnecessary, which suggests an increased ability to select the relevant information.

As expected, students made greater improvements in the different items tested than lecturers. This improvement is very clear, for instance, in questions 1 (on genre), 3 and 12 (on connectors), 7.2 (on thesis statement), and 9 (on topic sentences). As in test 3, the likely reason for this difference is the fact that students have far less experience of academic discourse than lecturers and, therefore, learnt more during the course.

However, those participants who showed a very limited language proficiency in English did not seem to have benefited much from the course as illustrated below in Table 7.3.
Table 7.3: Comparison of the results of the six weakest participants in pre- and post-tests 4.

<table>
<thead>
<tr>
<th></th>
<th>Number of incorrect questions out of 15</th>
<th>Number of correct questions out of 15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Result worse in the post-test</td>
<td>Result the same in the post-test</td>
<td>Total</td>
</tr>
<tr>
<td>L11</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>L12</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>S8</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>S11</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>S15</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>S20</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

In contrast with the more proficient students, most of whom showed some improvement, after instruction, five of the six lowest proficiency participants had unchanged or worse results in approximately one third of the questions of post-test 4.

7.3 Description of the course

7.3.1 Unit 1 (Journal articles and textbooks)

I began the course with an explanation of how each unit was structured. I thought this would help to establish a framework for the course as well as a ‘routine’. Participants were shown an OHP of a unit plan template so that they could familiarise themselves with the lesson pattern to be used. They were also informed, for instance, that certain activities would recur throughout the course (e.g. warm-up and follow-up tasks). However, participants were not informed about the topics of each unit because the warm-up tasks were designed to find out about participants’ awareness of the unit topics. This introductory stage was essential to establish a common ground between participants and me as a teacher. That is, although there would be room for a few improvised elements in the lessons, the fact that the unit plan was presented, ‘len[t] a certain reassuring predictability to lessons’ and thus helped to provide ‘an element of ritual
which is an essential part of any culture (or subculture, if we wish to define the classroom that way)' (van Lier 1996: 200). Van Lier (1996: 200) sums it up as follows:

A teacher who, for the sake of spontaneity and variation, looks for new things all the time, and just lets things happen, may be forgetting that most students also need points of stability in lessons, and these are achieved by recycling tasks, planning certain sequences of activities in predictable ways, ritual beginnings, endings, and transitions, and so on.

This introduction also helped to break the ice in the first lesson, as some participants, including myself, were probably not completely at ease in this new situation. My nervousness and apprehension at the beginning of the course is clearly illustrated in comments on the first unit (1a) and (1b) for the first three groups, while with the fourth group, LL2, which started later in January, the situation was clearly different as shown in (1c):

(1a) 'This was the first group I taught and I was particularly nervous. It was the first time I had taught a group of lecturers. I was also afraid of being assessed by my peers. Most lecturers had been working in the college for a long time and were either my age or older' (1CN LL1).

(1b) 'In the first three groups I felt nervous as it was the first lesson and did not know how it was going to be' (1CN GC).

(1c) 'This lesson went very well as it was the 4th I taught (and I had already taught other lessons to different groups). I was/felt more at ease. Moreover this group was smaller and the lecturers were all younger than myself and had been in college for a shorter period of time' (1CN LL2).

Timing was an additional difficulty in this first unit. Five factors contributed:

- lack of an established routine;
- my performance as teacher;
- mode of reading chosen by participants;
- great quantity of reading material;
• participants' lack of punctuality.

First, as noted above, the fact that this was the first lesson slowed progress as there was not yet an established 'routine'. Therefore, participants had more difficulty in performing the tasks in the time allotted. This had already been taken into consideration for participants were allowed 25 minutes for both the warm-up and follow-up tasks instead of the 20 minutes allotted in the other eight units. However, possibly even more time should have been allocated. Second, nervousness affected my performance. Third, in Activities B (i.e. tasks completed during the session) some participants attempted to read the academic text in detail ignoring the instruction to skim and scan them. Throughout the course whenever asked to read a text, some low proficiency level participants very often assumed that reading meant 'careful reading at local level' (Urquhart and Weir 1998: 101), which slowed down the rhythm of task completion. However, most tasks required other kinds of reading such as search reading, skimming, scanning and 'careful reading at global level' (i.e. understanding of the main ideas in a text or of the discourse topic) (Urquhart and Weir 1998: 101-103). Fourth, this unit included more reading material than the others did which might have been tiring for some participants, especially because this was the first lesson. In fact, this unit would have benefited from an extra 30 minutes. Finally, participants' lack of punctuality in three groups also affected the lesson. Below I will suggest that in order to overcome these problems this topic should be covered over three units instead of just one.

As I expected, most participants were familiar with the topic of Unit 1, as 53% of the lecturers and 40% of the students did not consider it new (see Appendix 19). Therefore, even before instruction, many participants were able to identify both genres (i.e. journal article and textbook). In fact, every participant had already been exposed to texts of the two genre types -- lecturers both in their academic work and their teaching and students both for their studies and in their 3rd year degree project report. Thus, participants could draw on their 'formal' and 'content schemata' (Carrell 1983) to identify the text genres (for an overview of schema theory see 3.1.2.5 above). In other words, 'knowledge of
prior texts may lead to sufficient recognition of informational and rhetorical structure to invoke a formal schema’ (Swales 1990: 86).

However, the aim of this unit was to introduce an approach to academic texts different from the one participants were used to: it was an attempt to draw on their formal and content schemata. The intention was to make them reflect on, discuss and become aware of the differences between those genres. There was also the additional goal of helping participants to use the macrostructure of texts either to choose the type of reading appropriate for their purpose or to discard the text as irrelevant to their reading needs. Some feedback questionnaire answers suggest that these aims were achieved, as the following five examples illustrate:

(2a) ‘It will help to understand better the articles (texts) by knowing its structure’ (1FBQ L6: Q4).

(2b) ‘I have learnt what are different parts of a text (academic or technical) in order to, next time, I only read what I really need and what I can expect to find in each part’ (1FBQ L14: Q6).

(2c) ‘That different texts have different content thus different aims and intended audience, this distinction is easy to see through the text structure’ (1FBQ S3: Q6 – my translation).

(2d) ‘In the case of this lesson, the topics are not new, they are often dormant due to our own laziness about reading more in English. Sometimes the topics are new in the sense that we are not aware of the value of each section or part from book or research article’ (1FBQ S4: Q7 – my translation).

(2e) ‘When I have to use academic books or scientific texts in my studies I already know how they are structured which will help me to save time and to go directly to the point.’ (1FBQ S15: Q6 – my translation).

Furthermore, after instruction far more participants were able to provide a correct label for the text genre rather than a description of the text. The following examples from warm-up (1A-1.2) and follow-up (1C-2.2) tasks illustrate the increased ability to identify a research article after instruction:
<table>
<thead>
<tr>
<th>Warm-up task</th>
<th>Follow-up task</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3a) 'It is an experiment about potato storage' (1A-1.2: L10 – my translation)</td>
<td>⇒ ‘Research article’ (1C-2.2: L10)</td>
</tr>
<tr>
<td>(3b) ‘Agriculture text on potatoes and the effect of chemical products on their yields’ (1A-1.2: L11 – my translation)</td>
<td>⇒ ‘Research article’ (1C-2.2: L11)</td>
</tr>
<tr>
<td>(3c) ‘It is the report of an experiment or a research work’ (1A-1.2: S6 – my translation)</td>
<td>⇒ ‘Artigo científico (research article)’ (1C-2.2: S6)</td>
</tr>
<tr>
<td>(3d) ‘This text is a report of a study carried out’ (1A-1.2: S8 – my translation)</td>
<td>⇒ ‘Research article’ (1C-2.2: S8)</td>
</tr>
<tr>
<td>(3e) ‘Specific text about agriculture’ (1A-1.2: S16 – my translation)</td>
<td>⇒ ‘Artigo científico’ (1C-2.2: S16)</td>
</tr>
<tr>
<td>(3f) ‘Scientific text that describes an experiment’ (1A-1.2: S19 – my translation)</td>
<td>⇒ ‘Research article’ (1C-2.2: S19)</td>
</tr>
</tbody>
</table>

This unit was the one participants considered the most useful – 53.3% of lecturers and 35% of students (see Appendix 20 Post-CQ: Q5). In addition, 86.7% of lecturers and 80% of students felt that their ability to use text structure and organisation had improved a lot (see Appendix 20 Post-CQ: Q1.3). Interestingly, the eleven participants interviewed had previously thought that they had no problems with text structure and organisation. Participants' comments suggest that all participants, irrespective of their proficiency and experience in reading academic texts benefit from instruction in genre. In fact, the same point has been made for teaching L2 writing. For example, Lynch (1992: 6) suggests that every type of student (i.e. apprentice writers with poor English, apprentice writers with good English, skilled writers with poor English and skilled writers with good English) needs to be made aware of genre and 'characteristic rhetorical patterns produced and expected by members of their discourse community'. Some participants also wished they had been given more time to deal with this topic. Finally, because this is the first course unit, participants would have benefited from having more time to cover the topic as shown in the present study. That is, the fact that this was the first unit slowed progress as there was not yet an established 'routine' and, therefore, participants had more difficulty in performing the tasks in the time allotted. Taking this into
consideration, I suggest that the focus should be broader – academic genres rather than journal article and textbooks – and should be covered over three units.

7.3.2 Unit 2 (Reviews, previews and action markers)

By the second week of the course, all participants, including me, felt more at ease, probably because a routine had already been established. Two short extracts from my notes illustrate this point: ‘Participants were at ease and participated mostly in Portuguese’ (2CN LL1) and in the general comments on this unit I added ‘On the whole I was more relaxed’ (2CN GC). Unlike in the first unit, despite lack of punctuality, there were no problems with timing as the lessons developed according to plan.

Participants’ reactions and answers to both the warm-up and follow-up tasks suggest that they experienced four main difficulties:

- understanding the concept of action marker;
- distinguishing between linguistic events in the text (i.e. events in the communication situation expressed through metatextual devices) and the external reality (i.e. the propositional content of the text);
- recognising the difference between connective relations which signal cohesion and rhetorical features of text organisation;
- differentiating between the use of a conversational style in which the writer addresses the reader directly using ‘relational markers’ and rhetorical features of text organisation.

I will briefly comment only on the first and the last of these difficulties because the second and third problems will be further discussed below in 8.7.1. During the correction of warm-up task and topic presentation some participants did not seem to grasp fully the meaning of action marker (i.e. indicators of discourse acts performed in the text), which I also noted: ‘The concept of action markers was not easy for everyone’
This may be the reason why quite a few participants signalled as action markers expressions described by Hyland as 'endophoric markers'. Hyland (2000a: 112) defines endophoric markers as 'expressions which refer to other parts of the text (see below, as noted above). These make additional ideational material salient and therefore available to the reader in aiding the recovery of the writer's meaning.' In short, endophoric markers include not only reviews and previews but other types of marker such as 'see Fig.' or 'Table X'. Two examples of the latter type can be found in Activity C:

(4a) 'On the contrary, all climate boundaries shift their positions from one year to the next (Figure 15-2).’ (2C: L11, L15, S10, S15, S18, S20, S21 – my emphasis)

(4b) 'Thus, a climate boundary should be regarded as a broad transition zone and not a sharp line (see Box 15-1).’ (2C: S15, S21 – my emphasis)

Others clauses or sentences underlined as action markers did not follow any particular pattern, which may simply indicate that low level participants had difficulty in processing the information. For example, the following were picked out yet show none of the relevant features:

(5a) 'It is a problem basic to all science.' (2C: S11)

(5b) 'The boundaries were the four astronomically important parallels of latitude: the Tropic of Cancer (23.5° north), the Tropic of Capricorn (23.5° south), the Arctic Circle (66.5° north) and the Antarctic Circle (66.5° south).’ (2C: S6)

After instruction some participants seemed to be over-keen to find the three metatextual elements because they underlined an excessive number of clauses and/or sentences. Students underlined more clauses and/or sentences than lecturers, for example S2 and S20 underlined 18, S7 underlined 19 and S11, the weakest student, underlined 20 when only 8 should have been underlined. This was particularly evident in the case of action markers. In fact, after instruction some participants underlined as many as 9 (S4) or 10
expressions and/or sentences that they considered to be action markers when only 2 should have been underlined.

The fourth problem noticed was the difficulty in differentiating between relational and rhetorical features. In other words, the incorrect labelling refers to sentences identified as action markers in which the writers address the reader directly, as in the three examples below:

(6a) 'You might be able to visualize this phenomenon better if you imagine an aquarium that has the same dimensions as the desk top' (2A: L1, L5, L6, L8, L11, L13, L14, S1, S3, S7, S8, S9, S13, S20 – my emphasis).

(6b) 'Now, imagine what will happen if this aquarium is placed at the top of our student desk so that all the force is directed downward' (2A: L8, L11, S1, S3, S4, S7, S9, S13, S14, S15, S16, S17, S20 – my emphasis)

(6c) ‘Notice that four of these major groups […]’ (2C: L1, L3, L5, S5, S11 – my emphasis).

In textbooks writers may address the reader directly, which can be seen as a strategy to make the text more conversational and accessible to the reader. In other words, it could be argued that this pedagogical discourse strategy has the role of facilitating communication and comprehension. Moreover, it helps the writer to build up a relationship with the reader, a strategy which is particularly relevant in the rhetorical context of textbooks. Hence, the above examples cannot be seen as metatext since they do not belong to the three features of textual organisation which were under analysis in the unit. According to Hyland (2000a: 113) this type of textual device can be included in the category of interpersonal metadiscourse which he terms ‘relational markers’. In (6a) the writers use the second person pronoun to engage readers in the discourse, while in (6b) and (6c) they use the imperative to build a relationship with readers. Therefore, they are not indicators of discourse acts performed in the text. In the above cited three examples participants appear to have confused what the writer asks them to do as participants in the text with the discourse acts performed in the text.
One likely reason for all these difficulties lies in the fact that participants were not used to looking at texts at two different levels – that of information about the text and that of metadiscourse, which is referred to above (Vande Kopple 1985: 83). In other words, participants were used to reading texts simply to seek information. Because they saw texts as objective, they were unaware of the writer’s presence in them. Thus, they found it difficult to separate these two levels within a text, probably because they were not accustomed to seeing a text as a linguistic construct. This could be due to the fact that, as Crismore (1989: 5) states, ‘[...] our society, especially those in education, seems to undervalue metadiscourse and to privilege the primary discourse.’ However, this appears to be more true for both students and lecturers in the hard sciences than in the humanities since in the hard sciences language is not an object of study but only a means of conveying information. Another possible reason is that some participants tend to read all texts in the same way, lacking awareness that ‘metadiscourse is not an independent stylistic device which authors can vary at will. It is integral to the contexts in which it occurs and is intimately linked to the norms and expectations of particular cultural and professional communities’ (Hyland 1998c: 438). In other words, different academic genres will vary in their use of metatext.

After instruction, participants were more often able to identify the appropriate chunk of text rather than underlining long passages or truncating expressions, clauses or sentences and thus not underlining the necessary information. Students had more difficulty than lecturers in identifying the correct chunks of text. Despite the difficulties encountered with metatext, especially with action markers, at the end of the lesson participants declared themselves more aware of both writers’ presence in texts and how writers could guide readers through texts. The feedback questionnaire results show that awareness of metatext was considered useful by 60% of the students. For lecturers the topic was far more relevant since 87% believed awareness of metatext would facilitate academic reading (see Appendix 19).
7.3.3 Unit 3 (Connectors)

This topic was one of the most familiar to participants, which made it more accessible, as I recorded in my notes: ‘In this unit I felt more at ease as this is part of the syllabus of the 1st year English courses taught by my colleague and myself at the college. Students were more familiar with the topic as connectors had been part of their 1st year syllabus, while lecturers had less clear and vague ideas on the topic’ (2CN GC). Second, I used a familiar approach to language teaching, as the lesson was closer to a ‘traditional’ grammar lesson. Finally, as mentioned above in 3.3.3.5 no attempt was made to distinguish between internal and external uses of connectors (cf. Halliday and Hasan 1976: 239-241; see also the previous section).

Despite their relative familiarity, connectors were felt by some participants to be a difficulty. In fact, even before the course was designed L4 had expressed the wish to have connectors included in it as she felt that she would benefit from instruction on this topic. Furthermore, in the discussion that followed the topic presentation, some participants requested the translation of connectors such as ‘thus’, ‘hence’, ‘despite’ or ‘nevertheless’ as they were either not sure about or did not know their meaning. It should be noted that, although monolingual dictionaries were available in every lesson, they were not often used, in particular by students. However, many participants found the connector table on the handout helpful and used it while completing the tasks in Activities B (i.e. tasks completed during the session). As the time of instruction was short and the number of new connectors high, some participants, especially those with a low level of proficiency, did not have enough time to process and assimilate all new information.

Another noticeable problem was finding an appropriate translation in Portuguese. Task 3A-1.5, in which participants were asked to translate connectors into Portuguese, illustrates this point. Some participants experienced processing difficulties or offered an inappropriate translation. Example (7) below taken from the warm-up tasks illustrates the former:
‘In addition to’ was translated as ‘acrescentando’, ‘somando aos’, ‘em adição’ (3A-1.5)

What we notice in (7) is that some participants have processed information step by step and somehow arrived at the gist of the meaning but chosen Portuguese words which are neither connectors nor appropriate in the context. In other words, a few participants made a literal translation of the multiword connector ‘In addition to’, which indicates that ‘In addition to’ was not seen as a lexical phrase or as being idiomatic in nature. As far as the latter point is concerned, there was a tendency towards two types of inappropriate translation:

- only part of the idiom was written (normally the last word missing) as in (8a) and (8b);
- a similar connector was chosen which was inappropriate to the particular context as in (8c).

(8a) ‘In addition to’ was translated as ‘alem’ instead of ‘alem de’ (3A-1.5)
(8b) ‘First’ was translated as ‘em primeiro’ instead of ‘em primeiro lugar’ (3C-1.5)
(8c) ‘In addition to’ was translated as ‘alem disso’ instead of ‘alem de’ or ‘para além de’ (3A-1.5)

These inappropriate translations suggest that these comprehension problems are likely to have been created either by participants’ misunderstanding or by lack of familiarity with certain connectors.

7.3.4 Unit 4 (Discourse structuring words)

In Unit 4, the established routine was disrupted to a certain extent, as this was the first observed lesson and this new situation affected my behaviour: ‘In this lesson I felt more
nervous again as the lesson was being taped and observed. However, what worried me most was the fact of being taped and I could not forget the microphone and the minidisk. I was very much aware of my own mistakes' (4CN GC) (see 5.3.4 for further details on the observer's paradox). However, the unit transcripts suggest that there was no discernible difference between participants' behaviour and involvement in this unit and others. In fact, their behaviour in this unit followed the usual pattern:

Table 7.4: Participants' behaviour in Unit 4.

<table>
<thead>
<tr>
<th>Participation</th>
<th>Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LL1</td>
</tr>
<tr>
<td>Asking for clarification</td>
<td>frequent</td>
</tr>
<tr>
<td>Making comments</td>
<td>frequent</td>
</tr>
<tr>
<td>Witty comments</td>
<td>frequent</td>
</tr>
<tr>
<td>Behaviour</td>
<td>quiet</td>
</tr>
<tr>
<td>Involvement</td>
<td>participative</td>
</tr>
</tbody>
</table>

1 In this particular unit it was mainly one student who asked questions.

While I was analysing the unit transcripts I became aware of some of the difficulties participants faced, which I would have been unable to see just from the warm-up and follow-up tasks. The most noticeable were the following:

- metalanguage problems;
- lack of academic vocabulary in English and, in the case of students, also in Portuguese; and
- written form versus pronunciation.

First, and not surprisingly, there was some confusion as to what could be considered a discourse structuring word. The reasons why participants may have classified certain words as discourse structuring words may be metalanguage problems. Participants thought that different grammar categories such as connectors, adverbs of frequency,
verbs, prepositions and expressions were discourse structuring words. Although participants should be able to identify a noun and familiar with the terminology of pedagogical grammar, this was not the case, in particular for weak students. In fact, the root of this problem is likely to be in L1 and then transferred to L2. Two short extracts can illustrate this point:

\[ \begin{align*}
S11 & \quad \rightarrow \quad 846 \quad \text{And} \text{<between> also isn't it?} \\
T & \quad <\text{Between}. It means between. It's a preposition okay?}
S11 & \quad \text{Right.} \\
(4\text{Transc. SS1}) \\
T & \quad \rightarrow \quad 1020 \quad (\text{Talking to S20}) \quad \text{Not these ones. This is a verb. This means may result may result may result. Okay? It's not. And here this word could be but it doesn’t refer you to another part of the text so in this case it's not... it's not a discourse structuring word.} \\
(4\text{Transc. SS1})
\end{align*} \]

The students do not know what a noun is in either extract. In the first case S11, the weakest student on the course, thought the preposition 'between' was a discourse structuring word. This confusion clearly shows that she does not understand the text. S20's problem again shows misunderstanding of the text as the verb 'result' is taken to be a noun, just because the noun 'result' figures in the discourse structuring table in the unit handout.

The second problem is one referred to by participants in the interviews where they state that they consider vocabulary one of their major problems. In fact, whenever there was a table with vocabulary (i.e. Unit 3 connectors and this unit) participants asked the meaning of many words and students asked the meaning of more words than lecturers. I noticed that when participants came across a new word they preferred to be given a translation rather than an explanation in English, as is shown below:
S After <disadvantage>.
T After what? Sorry?
S <Disadvantage>.
T Okay... <disadvantage>...<doubt> when you are not sure about something.
S \rightarrow A doubt?
T Yes.
(4Transc. SS1)

In this example, we notice that the student is not satisfied with a short explanation in English and wants it confirmed in Portuguese. In the extract that follows L12, the weakest lecturer, asks directly for the translation and is not happy with the idea that there is not an exact equivalent word in Portuguese while both L12 and L14 try to find a suitable translation:

L12 Aah then I was right. Thank you.
T <Mis-in-ter-pre-ta-tion>.
L15 Aah interpretation.
T Okay when you add the the prefix mis- in English it means always something done in a bad way... So if do a misinterpretation-
L12? ((unint))
T 290 No means interpret it in the wrong way you didn’t interpret it well.
L14 (Like) <misjudgement>
T Like <misjudgement> it means you did not judge in the correct way you-
L 295 ((unint))
T In the wrong way okay?
L12? \rightarrow (Mmm... how do you say it in Portuguese?) ((low voice))
T You don’t have a word in Portuguese okay?
T 300 ((unint)) opposite.
L14 \rightarrow Wrong interpretation.
T Yes it’s a bad one... It’s always something you do bad- if your child when [child’s name] doesn’t behave properly ((L12 laughs)) he misbehaves ((LL laugh)) he behaves in the wrong way in the way he shouldn’t okay?
L12 Okay.
(4Transc. LL2)
Finally, another short transcript will illustrate that this lack of vocabulary also extends to L1 in the case of students, which obviously increases their difficulty in understanding academic texts in English:

S1?  
T 335  <Inference>?  
S1?  →  What does inference mean? ((S1? laughs))  
[explanation in English by T]  
(4Transc. SS2)

Here I offered a translation as a shortcut to the explanation, as I assumed S1 would know the term. However, in this case translation was not a useful strategy as the term was unknown. Thus, I reverted to an explanation in English.

Low proficiency participants encountered difficulties related to understanding of the content of the units or completion of tasks and tests. This is illustrated in this unit with which three of the weakest students (S8, S11 and S20) had considerable problems. S20 did not manage to finish the warm-up tasks in the given time and had to be asked to stop and both S11 and S20, when required to answer a question from the warm-up tasks, gave an incorrect answer. These three participants were far more teacher-dependent than others. Moreover, they were the only three participants who were involved in extended one-to-one interaction with me as their teacher. The difficulties they experienced included lack of knowledge of vocabulary, inability to understand tasks and exercises, and confusion about the LA points which were being made (see paragraphs above). At the end of the lesson, neither S11 nor S20 had fully grasped the content nor could either of them successfully complete the last task in the unit. It was therefore suggested that they review the task at home with the key:

T  
1157  [...]  
Bye-bye. ((low voice))  
S20 I was telling S11 if you want... to have a look at home more carefully I can give you the key the answers for the text you were  
1160  doing so that you can see the words underlined... the discourse
structuring words and then when it’s not in bold is what they refer to so that you can see very clearly what it refers to. Would you want to have a copy of this… with the answers?

S20 Yes.
T 1165 Yes? Okay. So I’ll give it to you. Okay?
S20 Okay. Thank you.

(4Transc. SS1)

7.3.5 Unit 5 (Decoding noun chains)

The issue that emerged in this unit, which is not a new one, is the fact that background knowledge or content schemata about the research field influences comprehension (e.g. Alderson 2000: 29), especially in the case of specialised texts (e.g. Urquhart and Weir: 1998: 65; Clapham 1994: 281-282). In the particular case of this unit, in order to understand fully and/or find an appropriate translation of a given noun chain, it is essential to have some familiarity with the field or specific topical knowledge. Or as Montero (1995: 55) argues: ‘la competencia extralingüística del lector será decisiva en la correcta comprensión del sintagma nominal con premodificación’ ['the reader’s extralinguistic competence is decisive for correct understanding of the noun phrase with pre-modification’ – my translation]. This was particularly evident in tasks 5A-3 and 5C-3 in which participants were asked to translate two noun chains into Portuguese. Participants’ translations were compared with those of an expert. Although few participants made appropriate translations, many offered a more literal or approximate answer showing an understanding of the noun chain. This may mean that it is necessary either to be an expert or at least to have some background knowledge of the subject/topic in order to find an appropriate translation, as the technical terminology does not always allow a literal one (e.g. 5A-3 item 1).

Obviously, lecturers had more scientific background knowledge than students, which facilitated their understanding and completion of the tasks. It is also interesting to note that this difference in background knowledge between students and lecturers affected the class atmosphere. My general comments on this unit were: ‘Students in both groups had
difficulty in unravelling noun chains and more problems in translating them than lecturers. Sometimes participants seemed to understand noun chains but could not find the equivalent terms in Portuguese. Some participants, (especially lecturers) suggested alternative answers to tasks 5B-3 and 5B-4' (5CN GC). These difficulties students experienced may have made the lesson more difficult to follow especially to group SS2 who rescheduled their lesson for 6.00 pm. In contrast, according to my comments, the lessons with lecturers were easy going and entertaining:

Everyone participated a lot and jokes were made. There was a lot of discussion about the possible translations and therefore it took longer than scheduled. For example, L1 corrected the translation of one example in the handout – ‘coriander seed production’ which I had translated ‘produção de sementes de coentros’ should have been ‘produção de semente de coentros’. Unlike the general rule in this particular case, the word ‘seed’ should have remained in the singular (‘semente’) and not in the plural form (‘sementes’). There was a lot of discussion about the possible translations especially when they were related to participants’ speciality (5CN LL1).

This lesson was very funny. Lecturers participated a lot. There was a lot of discussion about the possible translations and therefore it took longer than scheduled (5CN LL2).

Finally, I will refer to the problems participants faced when converting phrases into noun chains (tasks 5A-2 and 5C-2). There were four types of difficulty:

- word order, especially with long phrases;
- use of plural instead of singular when converting a phrase into a noun chain;
- addition of plural when not required or attempt to use singular when the word was already singular; and
- some participants did not understand the task (i.e. they either paraphrased noun chains or did not omit prepositions and articles).
I will comment briefly on the first difficulty because it highlights some of the differences between English and Portuguese. The second and third difficulties are also related to differences between the two languages: in English, words in ‘middle’ position in noun chains take the singular whether referring to singular or plural. In contrast, in Portuguese whenever the head of the phrase is plural the other words (i.e. nouns and/or adjectives) agree in number. However, it is unlikely that they will cause major problems. Finally, the last one appears to be only a difficulty in understanding the task instructions.

The first problem, as mentioned above in 3.3.3.7, is related to the fact that noun chains allow the use of word order which differs from the Portuguese, where noun chains tend to be linked by prepositions (see Table 7.5 below for an example) or, in some cases, modifiers may follow the head noun. This may result in ambiguity for Portuguese readers and therefore account for difficulty in converting phrases into noun chains.

Table 7.5: Word order in a noun chain in English and the equivalent phrase in Portuguese.

<table>
<thead>
<tr>
<th>Language</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>1 economic incentive</td>
</tr>
<tr>
<td></td>
<td>2 pollution</td>
</tr>
<tr>
<td></td>
<td>3 control instruments</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Portuguese</td>
<td>5 instrumentos de controlo</td>
</tr>
<tr>
<td></td>
<td>4 de poluição</td>
</tr>
<tr>
<td></td>
<td>3 baseados em</td>
</tr>
<tr>
<td></td>
<td>2 incentivos económicos</td>
</tr>
</tbody>
</table>

The above example highlights the differences between the two languages. It shows how the word order in English is the reverse of Portuguese and how, in Portuguese, prepositions may be needed and there is number agreement in the different words of the phrase and, in this case, an extra word has to be added (i.e. ‘baseados’).

Even after instruction, participants had difficulty in converting phrases into word chains, that is, in getting the word order right, as illustrated in tasks 5A-2 and 5C-2. In task 5A-2,
which consisted of converting 6 phrases into noun chains, participants had very few correct answers (lecturers 31 and students 19 out of 210). Although after the lesson when they completed task 5C-2 participants show some improvement (lecturers 47 and students 49 out of 210), they were still very far from obtaining good results.

7.3.6 Unit 6 (Nominal style)

This unit seems to have been the most difficult both for participants and myself. Although most participants could easily distinguish a text written in verbal style from one in nominal style (tasks 6A-1 and 6C-1), they found rewriting sentences in a more nominal style (task 6B-4) hard and did not like doing it. On the latter point L4 commented: ‘I did not like very much doing exercises trying to find nominalisations, but I know they are very useful’ (FBQ L4: Q7). This is somewhat surprising since some participants commented that they would have liked to have more writing practice. As in the previous unit, students struggled to come to grips with the topic, which may have resulted in a ‘heavy’ lesson. Students’ difficulties with the topic will be further discussed in 8.7.2 below. On the other hand, although they also considered the topic challenging, both groups of lecturers engaged in discussion throughout the lesson and appear to have enjoyed it more, as my notes suggest: ‘Everyone was relaxed and participating’ (6CN LL1) and ‘[e]veryone participated and discussed the topic both in English and in Portuguese’ (6CN LL2).

However, at the end of this lesson I did not feel entirely satisfied with the way it had run. I realised that the time allotted was insufficient to present and discuss in depth a topic with which participants were not familiar. Moreover, as nominal style is a more abstract topic, it may be more difficult to reflect on than a particular discourse feature. In other words, most participants were able to distinguish verbal from nominal style, and yet they were unaware of this knowledge, and simultaneously unable to state it explicitly.
I should therefore probably place more emphasis on the contrast between nominal and verbal styles, devoting more time to this topic and introducing a focus on the differences between the two styles only gradually. This idea was also put forward in a post-course questionnaire: 'I would have liked to have had more time in some topics to internalise the concepts better and to be able to (understand) read and write in those subjects more efficiently. E.g. topics no. 5 [noun chains] no. 6 [nominal style] no. 7 [hedging]' (Post-CQ L2: Q7 – my translation).

I do not have a transcript for this lesson and therefore can only speculate as to the possible reasons for the difficulties encountered in this unit. I offer two possible reasons. First, in my explanations I may not have offered enough clear and properly contextualised examples or I could have failed to involve participants actively in the explanation process. That is, the examples, which are essential to an effective explanation (Brown and Armstrong 1984), may not have been comprehensible and sufficient in number. Moreover, reviewing the lessons transcripts (i.e. Units 4 and 7) it is evident that my approach is predominantly ‘monologic’ (i.e. direct explanations by the teacher) rather than ‘dialogic’ (i.e. mainly a negotiated discourse with learners): this provides a possible explanation why I failed to involve participants more actively (Donato and Adair-Hauck 1992: 77). Kennedy (1996: 29) refers to the former as ‘explanation’ (i.e. ‘one statement by the teacher’) and the latter as ‘explanatory discourse’ (i.e. ‘a negotiated interactive discourse between the learner and the teacher which acts as an “explanation”’). Second, at this stage of their learning process participants, the students in particular, might not have been ready cognitively and/or emotionally to accept the explanations offered. In other words, participants might have resisted this unit topic because they were either unable (readiness) or unwilling (acceptance) to process the explanation given. Therefore, I suggest that the benefits that participants gained from this unit were limited.
7.3.7 Unit 7 (Hedging)

In this lesson, which was observed and taped, I was very nervous again in one group because it was the lesson in which the minidisk microphone developed a fault and thus disrupted the lesson: 'The minidisk microphone did not work. While students were finishing Activities A I had to fetch a tape recorder to tape the lesson. The unit had to be taped on a microcassette I held in my hand. This unit could not be transcribed due to bad recording. I was very nervous due to this technical failure and having to teach holding a microcassette recorder' (6CN SS1).

This topic interested several lecturers, in particular the LL2 group: 'Participants were very interested in the topic and compared/discussed the use of hedges in Portuguese and in English. They started the discussion in English but soon switched to Portuguese' (7CN LL2). There was a long discussion as participants' views of academic texts differed from mine. That is, they had difficulty in recognising that writers manipulate and construct texts through the use of particular discourse features. Participants also found it more difficult to understand that the reasons why these discourse devices are used in academic texts in English more often than in Portuguese ones are both social and cultural. This issue will be discussed in more detail below in 8.7.3. As in other lessons, students were more reserved in commenting on the subject than lecturers either because they were shyer, less critical and observant or simply because the topic did not raise any relevant issues for them. In fact, there is no example of a lengthy exchange with students in the unit transcripts, whereas there are a few with lecturers. For example, the extended transcript quoted above in 6.4 illustrates how lecturers were more critical and confident than students. In that transcript, L2 seeks clarification about the meaning of the term 'hedging', is critical of what she believes to be the task and discusses it with me until she is clear about what should be done. The attitude of this lecturer contrasts with that of students who would probably not disagree and question me in such an overt way. Furthermore, this extract illustrates the difficulties I experienced in giving a clear explanation, as at first I seem unable to understand exactly what L2's problem is.
7.3.8 Unit 8 (Reporting verbs)

According to the few notes I have on this unit, it ran smoothly without timing problems and participants understood it easily, as their feedback comments show:

(9a) ‘That there are some words or expressions that give us the idea of the commitment of the author with the other author’s ideas’ (6FBQ L6: Q6).

(9b) ‘To pay more attention to the level of commitment of the writers to the results presented’ (6FBQ L6: Q6 – my translation).

(9c) ‘So that we can understand the writer’s interpretation/view of other articles [written by other researchers]’ (6FBQ S11: Q5 – my translation).

These comments suggest that participants grasped the core of the unit and that they had until then been unaware of how reporting verbs can assert the degree of the writer’s commitment to the propositional content which is being conveyed.

7.3.9 Unit 9 (Thesis statement and topic sentences)

Units 1 and 9 were those participants considered very useful (see Appendix 20). This suggests that participants prefer the units that deal with reading strategies than those that focus on discourse features. In fact before instruction some participants had difficulty in knowing where to look for information or what type of reading strategy to use even though, according to the interviews they use selective reading strategies and non-sequential reading patterns (e.g. Int. L5 Q2.13; Int. L10 Q2.12; Int. S4 Q2.13; Int. S9: Q2.13). This interest in reading strategies is also implicitly stated in the feedback questionnaire:

(10a) ‘Identify what a text and a paragraph are about more quickly’ (9FBQ L14: Q6).

(10b) ‘To find out more quickly what the writer is (in fact) writing about ’ (9FBQ L8: Q6 – my translation).
(10c) ‘To locate the general idea and topic of texts more easily’ (9FBQ S13: Q6 – my translation).

The comments above show participants’ perceptions of the usefulness of the topic. However, it is hard to say whether these comments come from reading the handout, the tasks completed in class or a combination of both.

7.3.10 Homework

This narrative of the course would not be complete without a reference to the homework. The general trend of participation in the different course tasks seemed to follow a common pattern. On the one hand, participants showed great involvement during the lessons although occasionally one or two lecturers complained about a particular task or the length of a text. On the other hand, most had some difficulty in completing the out-of-classroom tasks (i.e. participants did not do much reading outside the classroom, and few did the homework regularly) as mentioned above in 5.2.2. Many participants did not seem to perceive the latter as a basic requirement of the course even though they had been told before beginning that no reading course is entirely effective without reading practice and exposure to the target language. Moreover, summary writing has been considered ‘a very valuable exercise' for improving reading skills (Nuttall 1996: 206) and research has suggested that summarising may improve text comprehension and ‘summarisation training transfers to new texts’ (Urquhart and Weir 1998: 210-211). It could be argued that, to a certain extent, some participants adopted a teacher-dependent attitude. Henner-Stanchina and Riley (1978: 78) refer to this type of situation, when discussing the development of an open learning centre: ‘[...] many adults are convinced that all they have to do to learn a language is to attend a course.’ However, some participants felt they should have done the homework as they kept telling me they would do it later and offering me excuses for why they had been unable to do it. The pattern for homework also gradually changed: initially there was an effort to do it but this gradually faded as the course progressed and the end of semester approached, with a consequent
increase of academic workload for both lecturers and students (see Table 7.6 below). For example, in the first unit, 66.7% of the lecturers and 80% of the students did the homework while in the last unit only 20% and 55% respectively did it. In addition, many of those who did the homework chose very short texts, which did not give them extensive practice in reading. I will illustrate this point with two extreme examples: the text chosen by S3 for the last homework was one paragraph long and both S11 and S21 chose texts that were two paragraphs long for the same unit. One of the reasons for the choice of such short texts might be that participants wanted to help me in my research and chose short texts in order to invest less time and energy when doing so. These short texts were sometimes too short to be summarised. Moreover, they obviously could not provide examples of text features such as genre or text macro structure, which were illustrated and discussed in the first unit.

Table 7.6: Number of participants per unit who did the homework.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Lecturers</th>
<th>Count</th>
<th>%</th>
<th>Students</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>66.7%</td>
<td></td>
<td>16</td>
<td>80.0%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>53.3%</td>
<td></td>
<td>15</td>
<td>75.0%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>53.3%</td>
<td></td>
<td>14</td>
<td>70.0%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>40.0%</td>
<td></td>
<td>14</td>
<td>70.0%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>26.7%</td>
<td></td>
<td>12</td>
<td>60.0%</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>26.7%</td>
<td></td>
<td>11</td>
<td>55.0%</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>20.0%</td>
<td></td>
<td>11</td>
<td>55.0%</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>20.0%</td>
<td></td>
<td>11</td>
<td>55.0%</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>20.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I was very surprised to find that some participants, instead of summarising their texts, translated them completely or wrote long paraphrases, which might be seen as slightly abbreviated translations (see Table 7.7 below), at all stages of the course. There could not have been any misunderstanding of what the homework tasks were because the cognate Portuguese word ‘súmario’ means both summary and abstract. Moreover, they were explicitly told that this task consisted of giving a short account of the main points of the text. The summary was to be as short as possible and journal article abstracts were mentioned as examples of the desired proportions between text length and summary. Because students were likely to be less familiar with research articles, I offered them an additional example of the intended length of the summary they were being asked to
write: the abstract they had to write for their degree project report at the end of their third year. The fact that some participants chose to translate the English texts may be related to their low proficiency in English and/or their usual reading habits/strategies in English. That is, they may have been led to adopt a bottom-up reading strategy if the text was too complex or difficult to understand. Moreover, it is likely that these participants usually translate more complex texts as they read them and may therefore find translating texts less demanding than summarising them. One of the students interviewed, whose cloze test level was Intermediate 2, explained the strategy she adopted when she could not understand what she was reading:

If it the textbook is in English I... I have the dictionary nearby, I under...
... I make bullet points in the words I don’t understand and I make... I look the words up in the dictionary and after, for example, if I don’t understand a paragraph I may even write it word by word and then reorganise the sentence so that I can understand... the text, the sentence. [...] I underline, make a bullet point next to... the words I don’t understand and then I look them up in the dictionary and try to reorganise the sentence, more or less, to be able to understand it. Sometimes I can’t understand just by reading [the text] (Int. S1: Q2.13 – my translation and emphasis).

The fact that students translated texts more often than lecturers suggests that they may have some difficulties in identifying the main ideas in a text. That is, participants’ literal translations seem to require only step by step processing of the information and do not always form coherent accounts of texts. In contrast, a summary is a cognitively more demanding task because participants have to select, organise and relate the ideas from the text in coherent ways. Another feature of participants’ homework was the lengthy summaries, which may indicate difficulty in being concise and/or selecting the main points of a text:
Table 7.7: Number of participants per unit who translated texts or wrote long paraphrases of the texts they read as homework instead of summarising them.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>30.0%</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>50.0%</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>25.0%</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>40.0%</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>30.0%</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>35.0%</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>40.0%</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>25.0%</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

Despite these inadequacies in completing the homework, the questionnaires completed at home show that, while reading, some participants began to make use of things they had learned during the teaching units (Appendix 21).

Participants gave different reasons for not doing the homework as illustrated below:

(11a) '[What I found the least useful in the course was... ...the homework... It is always complicated to read something that is difficult already, and especially if on top of that if it is “compulsory”' (Post-CQ L12: Q6 – my translation).

(11b) ' [...] I would have liked [the course] to be less intensive so that I could do [what was expected of me] and be more committed, specially as far as the homework was concerned' (Post-CQ L15: Q7 – my translation).

This failure to take time to read outside lessons is a crucial issue in my research as I suppose that the outcome would have been different had participants read more widely and extensively. That is, without extensive reading it is not possible to improve reading ability (see e.g. Grabe and Stoller 2001: 191). In other words, as Grabe (1991: 396) stresses in a set of general guidelines for reading instruction there is need for extensive reading because ‘longer concentrated periods of silent reading build vocabulary and structural awareness, develop automaticity, enhance background knowledge, improve comprehension skills and promote confidence and motivation.’ Although the course I taught was not an extensive reading course, the citation above has some relevance to it. The LA course seems to have facilitated the development of ‘structural awareness’ and
the enhancement of background knowledge, specifically formal schemata of academic texts. Although at this stage it is impossible to say whether participants have improved their reading, the results of pre- and post-tests 3 above (7.2) indirectly suggest that there was an improvement in reading skills. Finally, as the answers to questions 3.3 and 3.4 in the post-course questionnaire show (see Appendix 20) the course helped to build up participants’ confidence and increased their motivation to read in English.

However, as mentioned above in 7.2, when discussing pre- and post-tests 4, those participants who showed a very limited language proficiency in English did not seem to have benefited much from the course. To substantiate this finding, I will now look at the case of the weakest student, S11, in some detail. Although, according to the post-course questionnaire, she considered the course very positive and believed she would read more in the future because she felt encouraged and confident, S11 acknowledged that she had made little progress in reading speed, vocabulary improvement, and her ability to use text structure or organisation. Moreover, her answers to the questionnaire completed at home show that S11 hardly ever paid attention to what had been taught, which suggests that she used her cognitive resources to figure out the language of the text rather than to observe and make use of the discourse features focused on in the course (Table 7.8).

Table 7.8: S11’s answers to the questionnaire completed at home.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>the structure and organisation of the text.</td>
<td>unsure</td>
</tr>
<tr>
<td>reviews, previews and action markers.</td>
<td>yes</td>
</tr>
<tr>
<td>the use of connectors.</td>
<td>no</td>
</tr>
<tr>
<td>discourse structuring words.</td>
<td>no</td>
</tr>
<tr>
<td>noun chains.</td>
<td>unsure</td>
</tr>
<tr>
<td>the use of nominalisations.</td>
<td>no</td>
</tr>
<tr>
<td>hedging.</td>
<td>no</td>
</tr>
<tr>
<td>reporting verbs.</td>
<td>no</td>
</tr>
<tr>
<td>topic sentences.</td>
<td>yes</td>
</tr>
</tbody>
</table>
7.4 Summary

In this chapter, I analysed the results of the pre-and post-tests. I demonstrated that in the cloze test lecturers were not only more homogeneous in their scores but also showed a higher proficiency in English than students while, in the other tests, although lecturers tended to have better results than students, the latter showed a greater improvement after instruction.

I argued that as the course progressed participants felt more at ease and attempted to speak in English more often. Although all participants were involved and participative, lecturers, as mentioned above in 6.3.2, disagreed with me more and put forward alternative views to mine more often than students. Another difference I noticed was that, throughout the course, lecturers saw a connection between what was taught in the reading course and its usefulness in writing more often than students. This is probably because they have to publish in both Portuguese and English. Students tend to read only when they are required to do. However, some of them expressed concern in different feedback questionnaires about their final degree reports and only saw the usefulness of the course in relation to this.

I also showed that students experienced more problems in the lessons than lecturers. I argued that there are three likely reasons for this discrepancy. First, students have a lower proficiency in English than lecturers. Second, they have far less experience of reading and writing academic texts than lecturers. The third and last factor is related to the previous one. Students sometimes lack the appropriate background knowledge to understand academic texts. Nevertheless, the results of the tests and the description of the course suggest that both groups increased their awareness of genre and academic discourse features. In the next chapter, I will describe and explore the conflict which emerged as a result of the different views of texts and knowledge or science held by participants and myself as course designer/teacher.
Notes to Chapter 7

1 The complete testpack with the placement test in the form of a cloze test was kindly ‘lent’ by the Edinburgh Project on Extensive Reading (E.P.E.R.), IALS, University of Edinburgh (1990, 1995) which gives reliability and validity to the results obtained.

2 In 1988 in a survey review Hill and Reid explain the scoring system of the Placement tests of E.P.E.R.: ‘We have established over the years nine levels of readability (see Table 1). Each level can be described by an average word count, by length, and by approximate level proficiency. Students’ starting levels are determined by a cloze test which we have correlated with reading levels [...] The procedure by which we have sought to establish readability levels is one of trial and error’ (1988: 49-50).

Table 1: E.P.E.R. readability levels

<table>
<thead>
<tr>
<th>E.P.E.R. level</th>
<th>Average vocabulary</th>
<th>No. of pages</th>
<th>Proficiency level</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>*</td>
<td>*</td>
<td>Beginner</td>
</tr>
<tr>
<td>G</td>
<td>300</td>
<td>16</td>
<td>Elementary</td>
</tr>
<tr>
<td>F</td>
<td>500</td>
<td>32</td>
<td>Intermediate</td>
</tr>
<tr>
<td>E</td>
<td>800</td>
<td>48</td>
<td>Intermediate</td>
</tr>
<tr>
<td>D</td>
<td>1200</td>
<td>48</td>
<td>Leading to First Certificate</td>
</tr>
<tr>
<td>C</td>
<td>1600</td>
<td>64</td>
<td>Advanced</td>
</tr>
<tr>
<td>B</td>
<td>1900</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2200</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>3000</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>

* (pre-extensive reading)

More recently Hill (1996, 2000) has produced a slightly different table:

E.P.E.R. ladder of readability levels

<table>
<thead>
<tr>
<th>E.P.E.R. level</th>
<th>Average vocabulary (headwords)</th>
<th>Average length (words)</th>
<th>Proficiency level</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>300</td>
<td>700</td>
<td>Elementary 1</td>
</tr>
<tr>
<td>F</td>
<td>500</td>
<td>2000</td>
<td>Elementary 2</td>
</tr>
<tr>
<td>E</td>
<td>800</td>
<td>4000</td>
<td>Intermediate 1</td>
</tr>
<tr>
<td>D</td>
<td>1200</td>
<td>8000</td>
<td>Intermediate 2</td>
</tr>
<tr>
<td>C</td>
<td>1600</td>
<td>12000</td>
<td>Intermediate 4</td>
</tr>
<tr>
<td>B</td>
<td>1900</td>
<td>15000</td>
<td>Upper 1</td>
</tr>
<tr>
<td>A</td>
<td>2200</td>
<td>24000</td>
<td>Upper 2</td>
</tr>
<tr>
<td>X</td>
<td>3000</td>
<td>30000</td>
<td>Upper 3</td>
</tr>
</tbody>
</table>

I used this later table but added information for both the level below G (level 2 in my histogram) and the level above X (level 9 in my histogram) because the score guide in
the placement test pack (1990/1995) also considered these two scores under the headings of ‘starter cards and reading cards’ and ‘reading unsimplified materials’ respectively. The former corresponds to the beginner level in the 1988 table and the latter, because it does not refer to any graded reader, is likely to correspond to proficiency level as shown in the table below:

<table>
<thead>
<tr>
<th>My level numbers</th>
<th>E.P.E.R. level 1996/2000</th>
<th>Proficiency level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H (1988)*</td>
<td>Beginner</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>Elementary 1</td>
</tr>
<tr>
<td>3</td>
<td>F</td>
<td>Elementary 2</td>
</tr>
<tr>
<td>4</td>
<td>E</td>
<td>Intermediate 1</td>
</tr>
<tr>
<td>5</td>
<td>D</td>
<td>Intermediate 2</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>Intermediate 4</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>Upper 1</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>Upper 2</td>
</tr>
<tr>
<td>9</td>
<td>X</td>
<td>Upper 3</td>
</tr>
<tr>
<td>10</td>
<td><strong>Proficiency</strong></td>
<td></td>
</tr>
</tbody>
</table>

* ‘starter cards and reading cards’ (Testpack 1990/1995)
** ‘reading unsimplified materials’ (Testpack 1990/1995)

No description is offered of what these proficiency levels mean specifically in terms of the four skills (speaking, listening, reading and writing) possibly because these tests ‘measure general proficiency’ (Hill 1992: 153) and do not consider the skills separately. However, in the E.P.E.R. guide Hill (1992: 153) draws attention to the fact that these placement tests ‘have been found to be very accurate in assessing general proficiency in English language across many cultures.’

3 All students but two had to write a research project during the 3rd year of their studies which was formerly the final year of every course. As mentioned above in 2.2.1.1 curriculum restructuring was implemented after a proposal by the College of Agriculture in 1998 to extend the duration of several courses (i.e. 3-year courses would become 5-year courses). This was because in the Portuguese educational system a 3-year course leads to a different degree from a 5-year course and, on the whole, both students and lecturers wanted that change.

4 ‘Relational markers are devices that explicitly address readers, either to focus their attention or include them as discourse participants. [...] Relational markers focus more on reader participation and include second person pronouns, imperatives, question forms, and asides that interrupt the ongoing discourse’ (Hyland 2000a: 113). Vande Kopple (1985: 85) labels them as ‘commentary’.

5 I use the term here as defined by Brown and Armstrong (1984: 122): ‘explaining is an attempt to provide understanding to others’.
8. Conflict of cultures

8.1 Introduction

Drawing on contrastive rhetoric and, in particular, on contrastive text linguistic studies (e.g. Clyne 1987, 1991; Hinds 1987; Mauranen 1993a, 1993b; Cmejrková 1994, 1996; Valero-Garcés 1996), the course drew participants' attention to certain rhetorical and linguistic aspects of English academic writing which reflect different writing conventions from the ones they are familiar with in their L1 culture.

In addition to raising awareness of these differences, the course focused on how certain linguistic features, chosen by the writer to orient readers, may help them through the text (e.g. Clyne 1987; Crismore, Markkenen and Steffensen 1993; Hyland 1999c) and are, therefore, likely to facilitate understanding of academic texts. As Hinds (1987: 143) suggests, English is a writer-responsible language because 'the person primarily responsible for effective communication is the speaker [or the writer]' and readers should take advantage of this. When reading, participants are usually only concerned with their cognitive expectations (see 8.6 below) because they are not aware that 'texts are [...] where readers and writers meet, linguistically and cognitively' (Candlin 2000: xv). Similarly, Hoey (2001: 187) suggests that a text is a site for interaction between the author/writer and the reader where 'writers and readers engage in a kind of dance whereby the writer seeks to anticipate the questions that a reader will want answered and the reader seeks to predict the questions the writer will try to answer.' In this dialogue, the reader's expectations operate at two different levels. At a lower level the reader has 'expectations about the immediate unfolding text' while at a higher level he/she formulates 'larger-scale expectations about the text as a whole' (p. 35). Hoey further suggests that the writer, with these expectations or these 'larger' and 'local' hypotheses in mind, models the text 'in terms of a question-answer dialogue' (p. 35). Hence, the writer will signal, either consciously or subconsciously, where these expectations can be met. At a lower level, the signals may, for example, take the form of 'specialised nouns
(e.g. consequence)’ or ‘propositional phrases (e.g. therefore, as a result)’ while at a higher level the use of cohesion can supply this signalling (Hoey 2001: 27; 41 – emphasis in the original). Thus, the course attempted to show how, in addition to cognitive expectations, L2 readers should also have linguistic ones, and benefit from ‘clues provided by the writer’ (Candlin 2000: xv). Participants were made aware of several devices used in academic English and of the similarities or differences to those in use in Portuguese. This was used as a pedagogical strategy to facilitate the reading of English academic texts and help participants bridge these differences.

As discussed earlier in 3.4.2, it was unlikely that participants would be familiar with awareness-raising as a learning technique or with most of the course topics, as the results of the feedback questionnaires confirmed (see Appendix 19). I expected participants to have difficulties related to cross-cultural rhetoric, and, to a certain extent, with proficiency in English. My expectations seemed to be confirmed when, during the course, the problems that arose in task completion were related mainly to cross-linguistic aspects of academic writing and to the proficiency levels of some participants. In some cases, however, the level of proficiency of course participants was much lower than I had anticipated when designing the course (for further discussion see 7.1). In addition, when I started analysing the data and the results from each unit, I found that there was often some improvement in task performance at the end of the lesson.

Both while the course was running and later when analysing the unit results I questioned whether it was too intensive and therefore participants might experience some difficulty in keeping pace with and processing the new information. This concern was reinforced by a few participants’ comments in feedback and post-course questionnaires in which they considered that more time should have been allotted to allow reflection on each topic, task completion or note taking (e.g. 1FBQ L6: Q7; 1FBQ L7: Q7; 1FBQ S9: Q7; 2FBQ L15: Q7; Post-CQ L2: Q7).
However, as I analysed data such as lesson transcriptions, questionnaires and interviews, I started to notice that in addition to participants having too little time to complete tasks and to their cross-cultural rhetoric and proficiency problems, there might be something else going on. I went over the data repeatedly to see whether I could find recurrent patterns that would lead me to new themes. As I reflected on the data, a few questions emerged as mentioned in 4.3:

1.a. To what extent are participants’ difficulties related to proficiency in English?

2.1a. Are participants’ difficulties related to rhetorical differences between Portuguese and English academic writing styles?

2.2a. What are the cross-linguistic aspects of academic writing that participants had problems with? What is the source of these problems?

3a. Why did participants read texts differently from me? Are there underlying cultural/social/educational reasons for this?

In the present chapter I will first discuss participants’ cross-cultural understanding of academic writing. Next, I will consider participants’ perspectives on reader orientation and the change in their view. Finally, I will argue that there was a conflict of cultures between course participants and myself as researcher-teacher-participant and that these different disciplinary cultures may influence the perception of knowledge, texts, language and cross-cultural rhetoric.

8.2 Participants’ cross-cultural understanding of academic writing

According to the feedback questionnaires, participants were largely unaware of most of the linguistic features and genre characteristics discussed during the course. Or, they had only an implicit knowledge of the unit topic and therefore needed to be made aware of
linguistic and generic features in order to notice them while reading. However, in the interviews carried out at the beginning of the course, when explicitly asked whether English and Portuguese academic discourse differ, some participants mentioned what they perceived as differences. In comparison to Portuguese, English academic writing was seen by some participants as: being more accessible and having a more linear organisation; having a different word order; and being difficult to read when texts were very technical (possibly a reference to nominal style). These three points will be illustrated in the sections that follow.

8.2.1 Explicitness as a rhetorical strategy in English texts

The comments below show that students have an implicit knowledge that texts in English favour explicitness. That is, Anglo-Americans write in a simple, precise and straightforward manner, which implies a concern to guide the reader through the text leaving less room for misinterpretation. In other words, they endeavour to make their texts more readable than Portuguese writers.

(1a) Sometimes I think they’re [English academic texts] easier [than Portuguese academic texts] In my opinion the content is easier, they’re simpler [...] Umm... I believe that sometimes the Portuguese make the texts more complicated... I’m talking about scientific texts, they complicate more and... they use words, aah... much more difficult that we’ve got to look up in the dictionary, don’t we? I think that the English ones are easier to read... to understand... they’re simpler, I think they’re simpler.’ (Int. S1: Q2.4 – my translation and emphasis).

(1b) ‘Yes, they’re [different], I think so. I think they’re, even the way of he... of writing [...] I think they’re different. [...] I believe the English are somewhat more practical they say immediately what the thing is and I think we don’t. I think we go round the point before getting really to it, but I think it has to do with the way Portuguese people write maybe, it’s a bit like that and I think that... it’s relative... the English it’s a bit different I think the way they present the, the issues, is slightly different and all the rest I think it’s slightly different from ours’ (Int. S17: Q2.4 – my translation and emphasis).

(1c) [...] as far as academic texts are concerned I think sometimes the English ones are easier because... [...] And they are a bit ... more direct... when they want to
say something they say it while in Portuguese or, even, in Spanish they're going round and round to say something and that's a bit tiring. When you have to study it's not so appealing [the digressions in Portuguese and Spanish texts]... having to read all that stuff (Int. S5: Q2.4 – my translation and emphasis).

The excerpts above suggest that, in the opinion of students, the Portuguese tradition of writing differs from the Anglo-American one at least in two ways. The sentences italicised in (la) suggest that English-speaking writers favour simplicity and straightforwardness in academic texts while those highlighted (lb) and (lc) emphasise that the Portuguese prefer a different pattern of textual organisation, since the latter tend to be digressive with discontinuities in their arguments.

This view is supported by Kaplan’s (1966) suggestion that students’ paragraph development in Romance languages contrasts with the linear development in English. Kaplan describes the structure of a typical expository paragraph as being linear because it usually starts with a topic sentence which is then supported by examples and illustrations related to the main argument. Escobar (1996) makes a similar point about paragraphs written by professional Spanish writers. Likewise, Clyne’s (1987) analysis of German academic texts confirms and even expands this view to include both the development of arguments and the hierarchical development of text superstructures. Frankenberg-Garcia (1991), in a study of English writing instruction for skilled Brazilian writers, found that, in the pre-treatment essays, a ‘[...] major factor of non-compliance with the discourse of English expository prose perceived was the relative lack of linear organization in the presentation of the ideas’ (p. 85 – my emphasis).

Students’ awareness of different discourse patterns may be related to the fact that they have more difficulty in understanding academic texts, less disciplinary background knowledge, and that they probably read fewer academic texts than lecturers. This may contribute to the fact that they appear to be more sensitive to these differences across languages. In fact, one of the lecturers acknowledged that she had never noticed any
difference before the beginning of the course (Int. L4: Q2.4) and believed that her difficulties were due to her lack of vocabulary, grammar problems and general proficiency level: ‘It’s the fact of having a poor command of English, you know, not having a good command of the language aah... I take longer to read texts in English and... and... [...] Maybe vocabulary, it’s not having a good vocabulary and... well, as I don’t feel at ease with grammar to be aah... unless [in English in the original] or any other similar word, sometimes I get confused because [the word] means exactly the opposite [of what I think]’ (Int. L4: Q3.1 – my translation).

8.2.2 Word order in English differs from Portuguese

Word order in Portuguese is relatively more free than in English (Frankenberg-Garcia 1991; Shepherd 2001). The four comments below suggest an implicit realisation that noun phrase word order in Portuguese is different from that in English as Shepherd (2001: 122) explains: ‘The difference in noun phrase word order can lead to misunderstandings: administrative activities may be understood as administration of activities; few moving parts can be understood as little movement of the parts.’ Another example, which may account for comment (2c) is the fact that ‘[a]djectives follow nouns in Portuguese’ (Shepherd 2001: 122).

(2a) ‘Sentence structure [in English] yes, it’s the other way round, but... text [organisation] itself I don’t think it’s much different’ (Int. L10: Q3.4 – my translation).

(2b) ‘[...] and then as the English language has nothing to do with ours because we it’s a Romance language and theirs isn’t, it isn’t. And the way the sentences and verb conjugation are completely different from ours [...]’ (Int. S17: Q2.2 – my translation).

(2c) ‘Aah... Sometimes yes... [the sentence structure is a problem] sometimes it’s still a problem because okay... reading in English aah... I have... well sometimes... it changes well a bit... the... it seems that information comes afterwards... that the verb comes first after I think comes the adjective, I don’t know if I’m saying something that’s not correct... but sometimes yes’ (Int. S18: Q3.4 – my translation and emphasis).
In the above quotations, participants seem unable to state their ideas clearly as if they were organising their own thoughts as they spoke, with the result that the meaning of the sentences is slightly confused or obscured. Despite this lack of clarity these four examples point to an awareness that there is a different word order in Portuguese, which in some cases may even hinder understanding.

8.2.3 Different style in academic English

Comments (3a) and (3b) below point to the fact that academic English may be more difficult to read than other English texts, which may in turn suggest an implicit knowledge of the nominal style which characterises academic discourse.

(3a) ‘[...] maybe if [the text has] a very dense technical English then I’ll have more difficulty [...]’ (Int. L6: Q2.2 – my translation).

(3b) ‘If... if... essentially it’s not too technical... which makes me constantly look for and stop to try to understand the sense of the sentences of the text aah...I happily do that and, no... no... without great difficulty’ (Int. S4: Q2.2 – my translation and emphasis).

Even L6, who is the lecturer with the highest proficiency level, admits in (3a) that academic/technical discourse can cause comprehension difficulties for a fluent reader. This point is further developed in the second example. In the italicised sentences in (3b), S4 explains the reading strategies she adopts to cope with a dense nominal style. First, she identifies the difficulties, then stops to check comprehension and finally tries to make sense of the text by connecting one sentence to another and reflecting on what she has just read.
8.2.4 Cross-cultural differences within academic texts written in English

One interesting point highlighted in the interview by L.15 is the fact that sometimes the intelligibility of academic texts written by NNSs can be jeopardised. This suggests that ‘nonnativeness’ in writing (Connor 1996: 4) can cause additional problems for L2 readers as the transcript below illustrates:

T [Q2.4] Do you consider texts written in English very different from texts written in Portuguese?
L.15 Aah... different in what way?
T I don’t know, if you notice, well if you’ve got to read a text in Portuguese or a text in English on the same topic, if the way it’s written or organised... if you notice any difference or differences...
L.15 Of course. It depends, one of the things I feel is different even in texts written in English, if the texts are written by people whose native language is English they are always different from the texts [whose writers] first language isn’t English. The latter are more difficult to read.
T And specifically what are those differences? Could you give me an example?
L.15 Yes... It’s a more difficult read... the sentences are longer and the text is more confusing, it’s harder to read.
T Native speakers?
L.15 No, non-native speakers.
T Non-native speakers.
L.15 Maybe, because they attempt to translate... it [the text] becomes more complicated than those [written by] the English [in English] because it’s their first... language and they write more fluently than those other people, which is also normal. But I’ve some difficulty in reading... articles mainly articles from... places or by people who are not English or American... aah... in Canadian [texts] I don’t have many problems it’s more with other countries.

T = teacher-interviewer (Int. L.15: Q2.4 – my translation)
This comment raises an issue which has already been discussed (see 5.2.3) namely the need to expose students to English academic texts written by NNSs. Two reasons can be advanced: the increasing number of academic publications in English written by NNSs (Wood 2001) and the difficulties they are likely to cause some L2 readers. In fact, the former is illustrated by the fact that several participants selected texts written by NNSs to summarise at home. For example L6, who always did the homework, chose mainly texts (7 out of 9) that appear to be written by NNSs of English (I used as criteria both the writers’ names and the location of the institution where they work). The text by the editor of California Agriculture (3HW) was the only one written by a NS. The research article used in Unit 8 was a joint article by Australians and Italians (8HW). All the other texts, all research articles, seemed to have been written by NNSs: 1HW – Portuguese; 2HW – Belgians; 4, 5, 7 and 9 HW – Spanish; 6HW Italian. This need to read texts written by NNSs seems to be related to the research area.

This is linked to an ongoing debate on world Englishes and whether or not linguistic and cultural differences should be accepted in academic writing in English (Connor 1996: 16-17; Kachru 1995). It is linked in particular to the question of whether NNSs should attempt to conform to the Anglo-American writing conventions or whether diversity in writing patterns should be allowed in academic publications. Flowerdew and Peacock (2001a: 23) refer to the fact that ‘[v]ariation in World Englishes has given rise to calls in some quarters for greater tolerance of different rhetorical styles in international publication.’ For example, Mauranen (1993a) argues that the fact that Finnish writers favour reader responsibility is not a disadvantage, in fact, it can even be considered an asset. Cmejrková (1996) makes a similar point for Czech. In this line of thought, Kachru (1995: 29) suggests that: ‘instead of putting all the responsibility on the writers from the wider English-using world, it is desirable for the readers from the Inner Circle to share the responsibility of making meaning. It is necessary to train readers who, for whatever reason, come across texts produced by international users of English to appreciate writing conventions different from their own. This will enrich the available and acceptable range of linguistic structures and rhetorical modes, and serve the cultural
diversity of which we are becoming increasingly aware.' In short, it has been increasingly suggested that the international academic community should not always use the Anglo-American model to present the results of research in English (Yakhontova 2002).

8.3 Difficulties in verbalising cross-cultural differences in academic writing

Some of the comments in the three sections above are not very clear or well-organised, as if participants had difficulty in pinpointing exactly what these differences are. Two related reasons may account for this difficulty in explaining the perceived differences between the two languages. First, participants come from a different disciplinary culture and have different approaches and concerns about reading, as L6 points out when asked whether she had anything to add to the topic of reading: 'No, I mean, no I didn't think about it and therefore no... ((Silence)) Well, you know, the interest of the interviewer and the interviewee are not the same, are they? So... well no... I haven’t thought about this issue and at the moment I have nothing, nothing to add. You see linguistics has nothing to do with me, has it? ((Laugh))' (Int. L6: Q3.5 – my translation and emphasis). Second, some have not reflected about or thought of these differences between English and Portuguese academic discourse before. Moreover, they are not used to thinking critically about language and texts as the comments below indicate:

(4a) ‘Aah... No. I don't think so. I'd also never thought of that [whether the organisation/structure of academic texts in English is a problem]. But... but I've never paid much attention to that, I just read...’ (Int. S1: Q3.4 – my translation and emphasis).

(4b) ‘How do I learn [new words in English]? ((Silence)) I've never thought about it ((Laugh))’ (Int. S18: Q2.7 – my translation).

(4c) ‘Although I've never, I mean, thought much about that type of thing, but no, I don’t think there is, you know, a specific way of structuring texts globally in English’ (Int. L5: Q3.4 – my translation).
On the structure of academic genres:

'Yes [I would benefit from learning more on this topic] because I had never thought about these things in relation to study' (1FBQ S15: Q5 – my translation and emphasis).

'[What I found most useful in the course was...] the systematisation of concepts that one knows in a sort of intuitive and empirical way. After the course one can analyse a text better both structurally and also in the ability to identify certain "nuances" [in French in the original] better of which we didn't have such a clear perception’ (Post-CQ L9: Q5 – my translation and emphasis).

All comments show participants’ lack of reflection on their own reading practice and/or the strategies used. This is signalled by the negation of the verb ‘to think’ in all cases except the last one. S18’s laughter in (4b) suggests either a certain uneasiness about the question or even a feeling that it is irrelevant. The comments also suggest that participants had not even considered reflecting on language, texts or the differences between English and Portuguese. The short pauses indicated by the dots in (4a) and the longer pause in (4b) mark participants’ reflection on what is being said. Comment (4a) shows clearly that S1 looks uncritically at texts, taking them for granted. The italicised sentences in the last example, (4e), emphasise the importance of raising awareness of text genre and discourse features.

However, after instruction participants were more comfortable about expressing what they saw as cross-linguistic differences in academic writing conventions. This may be because they had to reflect on issues they had never considered before and were more prepared to pay attention to writing conventions across languages:

On academic genres:

'The structure of academic texts – that they have a few things in common with Portuguese texts, but also a lot of differences, so maybe I’ll be able to search the information I need faster' (1FBQ S5: Q6).

On metatext:

'I learnt that we write in a different way from English writers and I understood
the way themes are presented better and how they can be read in English’ (2FBQ L8: Q6 – my translation).

(5c) On noun chains:
‘I learnt that sentence formation in English can be completely different in Portuguese. And also the meaning of summarised sentences in English in only a few words’ (5FBQ S10: Q6 – my translation).

(5d) On nominal style:
‘Understand the way of writing in English which will (maybe) facilitate faster translation in the future (understand better what the author wants to say) (Sometimes it is difficult to translate into Portuguese, especially the meaning the sentence is supposed to convey)’ (6FBQ L8: Q6 – my translation).

(5e) On hedging:
‘[I learnt] the cultural differences between writing in English and in Portuguese [...]’ (7FBQ S3: Q6 – my translation).

The above comments suggest that the feedback questionnaire ‘forced’ participants to reflect on the content of the unit. In the open-ended questions participants gave factual reports of what they had learned and/or wrote about the personal insights that arose from this short reflection on the unit. In this sense, this questionnaire was a tool for on-going reflection on the content of the course. Moreover, participants kept copies of their answers to question 6 (i.e. ‘What I have learnt from this unit that I will use next time I read…’) so that they could reread them later and remember the connections between what they were learning and what was happening in their reading practice. It is interesting to note that two participants considered this awareness of cross-linguistic aspects of writing the most useful thing in the course:

(6a) ‘A better understanding of text structure which will certainly allow better reading comprehension due to the structural and conceptual difference between writing in English by English people and writing in Portuguese’ (Post-CQ L3: Q5 – my translation).

(6b) ‘What I found most useful in the course was becoming aware of scientific language as a type, as well as how people write in a language different from Portuguese’ (Post-CQ S14: Q5 – my translation).
In this section, I suggested that participants' initial difficulty in verbalising cross-linguistic differences in academic writing decreased as the course progressed and they reflected, discussed and wrote about these differences.

8.4 Participants' perspective on reader orientation

8.4.1 Different types of reader

Before the course, participants were likely to have an implicit knowledge of how different genres relate to their writers, purpose(s), audience and prototypical structure. And, although their comments on the first unit point only to the relevance of different genres and their prototypical structure, they seem to have gained insight into the fact that different types of texts target different audiences and become able to decide whether they see themselves included in those intended readers or not, or in Bakthin's (1986: 95-96 – emphasis in the original) words:

An essential (constitutive) marker of the utterance is its quality of being directed to someone, its *addressivity*. [...] Both the composition and, particularly, the style of the utterance depend on those to whom the utterance is addressed, how the speaker (or writer) senses and imagines his addressees, and the force of their effect on the utterance. Each speech genre in each area of speech communication has its own typical conception of the addressee, and this defines it as a genre. [...] 

When speaking I always take into account the appreciative background of the addressee’s perception of my speech: the extent to which he is familiar with the situation, whether he has a special knowledge of the given cultural area of communication, his views and convictions, his prejudices (from my viewpoint), his sympathies and antipathies – because all this will determine his active responsive understanding of my utterance. These considerations also determine my choice of the genre for my utterance, my choice of compositional devices, and, finally, my choice of language vehicles, that is, the *style* of my utterance. For example, genres of popular scientific literature are addressed to a particular group of readers with a particular apperceptive background of responsive understanding; special educational literature is addressed to another kind of reader, and special research work is addressed to an
entirely different sort. In these cases, accounting for the addressee (and his apperceptive background) and for the addressee’s influence on the construction of the utterance is very simple: it all comes down to the scope of his specialized knowledge.

Only one participant explicitly referred to this new awareness that texts are always addressed to a particular audience and that this changes the way they are written: ‘Differences between scientific articles and others, different types of books and targeting different addressees’ (1FBQ L12: Q6 – my translation and emphasis).

However, there was an increasing awareness of audience in academic texts. The effect of this on participants’ decisions about whether or not to read academic texts for a particular purpose is illustrated by a situation which occurred in the last unit of the course. In this unit, on thesis statements and topic sentences, students and lecturers reacted differently to the same text on the basis of their varying expectations as readers and the disparity in levels of background knowledge. In task 9B-1.2, after reading the first sentence of each paragraph of an article taken from the journal Scientific American, participants had to decide whether they would read the rest of the text to help them to prepare a talk on a given topic (i.e. the use of genetic engineering to protect crops from diseases). The article, which had many popular features, was considered worth reading in detail by most students but not by most lecturers, specially those whose field of research was connected to the text topic (i.e. making rice disease-resistant). This may be due to the fact that, as mentioned above, different genres structure and present the same reality differently depending on the writer’s purpose, audience and the social context to which it belongs. In other words, the text was considered useful for student talks because their expectations and knowledge of the topic were limited. Moreover, lecturers often recommend popularizations to students when introducing a new topic. In fact, I was given this particular article by one of the participating lecturers who uses it in one of her own courses. It was seen as useful for students but it was of no value to lecturers/researchers because it did not have the rhetorical organisation and depth of argument required by a research article. Lecturers would be more likely to read the
journal articles on which this article from *Scientific American* was based. This coincides with Latour and Woolgar's (1986: 72) view that articles in *Scientific American* are papers addressed to lay audiences and are therefore a 'laymen's genre'. They can be used in a teaching context but they do not bring anything new to scientists who will read 'insider reviews' or 'specialised articles'. Or, going a step further, it can be said that 'popularizations and scientific articles present two views of what a scientist does, two views that are incompatible but that both play a part in creating the cultural authority in science' (Myers 1990: 142). These two differing views, are outlined in the table below, which is based on Myers’ analysis of articles on evolutionary biology:

<table>
<thead>
<tr>
<th>Professional articles</th>
<th>Popularizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• narrative of science</td>
<td>• narrative of nature</td>
</tr>
<tr>
<td>• follow the argument of the</td>
<td>• the subject is the plant or the animal, not the scientific activity</td>
</tr>
<tr>
<td>scientist</td>
<td>• the narrative is chronological</td>
</tr>
<tr>
<td>• arrange time into a parallel</td>
<td>• the syntax and vocabulary emphasize the externality of nature to scientific</td>
</tr>
<tr>
<td>series of simultaneous events</td>
<td>practices</td>
</tr>
<tr>
<td>all supporting their</td>
<td></td>
</tr>
<tr>
<td>claim</td>
<td></td>
</tr>
<tr>
<td>• emphasize the conceptual</td>
<td></td>
</tr>
<tr>
<td>structure of the discipline</td>
<td></td>
</tr>
<tr>
<td>in their syntax and</td>
<td></td>
</tr>
<tr>
<td>vocabulary</td>
<td></td>
</tr>
</tbody>
</table>

(adapted from Myers 1990: 142)

In sum, comments made by both students and lecturers reflect the fact that they were attentive to the text genre, the writer’s aim(s) and argument and, depending on their background knowledge, whether they felt like the intended audience of the article. Or as Hyland (2000a: 9) suggests: ‘The student neophyte, the laboratory research assistant, the professional theorist and the industrial applied scientist interact with and use the same texts and genres for different purposes, with different questions and different degrees of engagement’.
8.4.2 Reader-responsible versus writer-responsible view of texts

Although only one participant refers to fact that the reader has to be, at least partially, responsible for effective understanding, this may be a view shared by most participants. This view that readers have to dig out the meaning of the text may be linked to the fact that, when reading, participants usually remained at the ideational level (Halliday 1973) of texts. They were not used to noticing the interpersonal aspect of texts nor were they aware that English is a writer-responsible language. This point is illustrated by the comments of L6:

Right, I think that that’s... that’s the author’s, the author’s responsibility... well [the writer] writes the article with the structure he wants, with the organisation he wants and... I think that it’s the reader who has to adapt to... I mean to the organisation to the structuring of the text, isn’t it? Therefore, that question of the structure does not worry me much. Of course that... if it’s a whole text that has no divisions from the beginning to the end ... the thing is more complicated. Now, if it’s a text that is actually divided into sections with introduction, material and methods aah... results, conclusion... there... well... you know my task is easier because it will be easier, if I don’t want to read it all, to select the parts that interest me most, won’t it? So, I’m not interested in the structure, I believe that the author is free and that he will choose the text organisation that suits him most and it will be the reader who has to adapt, won’t it? (Int. L6: Q3.4 – my translation and emphasis).

In this extract we notice that the writer is not perceived as someone who should help, guide or structure the text in a way that would facilitate the reader’s understanding of his/her argument. On the contrary, the reader is the one who has to make the effort to adapt to what suits the writer. However, this view gradually changed, as some feedback comments show. That is, participants began to pay attention to intended audience, clues provided by the writer and how they could use them to facilitate their reading:

(7a) On genre and audience:

‘It will be more easy when I have to read some textbook and articles and now I understand the main audience of it’ (1FBQ S9: Q6).
On metatext:

'To pay attention to the “clues” given, such as the [way the writer calls] attention to the actions [markers used to say] what the author is going to do, so that I can understand the text I’m studying better' (2FBQ S17: Q6 – my translation).

On metatext:

'[I will use the content of this unit for reading] all texts I will read in English because if the English write like this, we have to take the opportunity!' (2FBQ L10: Q4 – my translation).

On connectors:

'[I will use the content of this unit for reading] in other languages when writers use them [connectors] and I’ll use them to make the texts I write easier to read' (2FBQ L14: Q4 – my translation).

On discourse structuring words:

'...learning certain forms of academic writing, and using them as a sort of guide [...]’ (Post-CQ S5: Q5 – my translation).

These seven comments highlight the writer’s responsibility to present his/her argument in a clear, explicit, simple and accessible way. The writer’s role as the facilitator of understanding is conveyed by the use of word ‘easy’ in (7a), (7d) and (7e) and the expressions ‘sort of a guide’ in (7g) and ‘help the reader’ in (7f). The reference to ‘clues’ in (7b) also points in the direction of a writer-responsible view of texts. Finally, the comment ‘if the English write like this, we have to take the opportunity!’ in (7c) implicitly states that this is not the case in Portuguese, where the reader has to make an additional effort to comprehend the text.
In short, participants' initial perspective on reader orientation, based on their L1 reading experience, was that the reader alone is responsible for understanding texts. However, as they became gradually aware of the differences between academic genres and began to notice the discourse features and the academic writing conventions discussed in the sessions, their perception of the writer's role changed. Participants realised that in English the writer (and not the reader) is primarily responsible for effective communication and that this is achieved through the writer's rhetorical preference for a reader-oriented attitude, which may facilitate reading.

8.5 Two cultures

One common association with the term 'culture' in an EAP/ESP context, referring to the differences between students and lecturers, is the concept of 'ethnic culture'. That is, 'culturally based, social-psychological features which affect the behaviour of lecturers and students' (Flowerdew and Miller 1995: 346) and may be reflected both in linguistic and cultural differences. These cross-cultural differences may sometimes cause communication difficulties, misunderstandings, breakdown (e.g. Flowerdew and Miller 1995). However, this dimension of the notion of culture did not apply to the present study as course participants and I share a common background as far as L1 and ethnic culture are concerned.

8.5.1 Disciplinary cultures

Another issue related to the notion of culture is the contrastive rhetoric model first suggested by Kaplan (1966, 1987). Kaplan and others maintain that writing varies with culture, in particular in the way L2 writers draw on a variety of cross-cultural and cross-linguistic influences at the different discourse levels, i.e. sentence, paragraph and even whole text (e.g. Kaplan 1966, 1987, 1988; Connor 1987, 1996). This cross-cultural variation in written texts, for example in academic discourse (e.g. Mauranen 1992, 1993a, 1993b; Cmejrková 1994, 1996; Connor 1996), may reflect the fact that different
Writing conventions are taught in different countries. In the reading course, I attempted to attend to what I perceived as cross-cultural rhetorical differences between English and Portuguese. However, these differences concerned only academic texts and did not account for differences between course participants and myself, which could have been related to another dimension of culture — ‘disciplinary culture’ (Flowerdew and Miller 1995: 366). According to Flowerdew and Miller ‘[d]isciplinary culture refers to the theories, concepts, norms, terms, and so on of a particular academic discipline’ (1995: 366).

The attitudes of course participants differed from mine because of their contrasting educational backgrounds and fields of research. That is, we belong to two distinct disciplinary cultures: course participants came from the hard sciences (the only exception was the college librarian who has a history degree) while my background is in literature, languages and linguistics. These differences impinge on views of both knowledge, language and academic texts. This ‘metaphor of disciplines being like cultures’ (Myers 1995: 5) is not new. In fact, it has been present in both WAC [Writing Across the Curriculum] and EAP research and Myers (1995: 5) sums it up as follows:

Disciplines are like cultures in that: their members have shared, taken for granted beliefs; these beliefs can be mutually incomprehensible between cultures; these beliefs are encoded in a language; they are embodied in practices; new members are brought into the culture through rituals.

8.5.2 Two paradigm

Lecturers and students at the college, the groups who provided the participants in my study, positioned themselves within a positivist scientific paradigm in which knowledge is seen as discovered/found and the predominant concern is ‘model-building and the analysis of observable experience to establish empirical uniformities’ (Hyland 1999c: 114). Their view of knowledge is positivistic also in the sense that for them ‘knowledge is an accurate representation of the real world’ and ‘scientific studies are factual, and
hence best designed to be faceless and agentless’ (Chang and Swales 1999: 154 – emphasis in the original). It is also likely that, because course participants came from hard science disciplines, they had never considered an alternative to this positivist-empirical epistemology. Hence, they most likely believed that ‘scientific language is simply a transparent transmitter of natural facts’ and that to write science is ‘[... ] not to write at all, just simply to record the natural facts’ because ‘[e]ven widely published scientists, responsible for the production of many texts over many years, often do not see themselves as accomplished writers, nor do they recognize any self-conscious control of their texts’ (Bazerman 1988: 14 – my emphasis). Language is just a tool to express the truth found/discovered in nature and texts are faithful representations of the world (for a discussion of cognitive view vs. social construction of knowledge and language see Kaplan and Grabe 1991). Bazerman (1998: 15) explains why this is a prevailing belief not only among scientists but also in the general population:

Over the past centuries; several forces have tended to suppress our consciousness of the rhetorical, communicative and symbolic character of scientific knowledge: the desire to get closer to the material object and the empirical experience of it; the warranting of representation through material practice; and the desire to remove misleading forms of representation. Perhaps the very success of scientific representation has suppressed awareness of language in the production of scientific knowledge, for scientific knowledge seems to be cast in naturally authoritative forms, unthinkable in any alternative representation.

In contrast, my view draws mainly on a social constructionist perspective (e.g. Bruffee 1986; Bazerman 1988, 1990; Kaplan and Grabe 1991). The underlying assumption of social constructionism is as Hyland (2000a: 6) suggests:

[...] that academics work within communities in a particular time and place, and that the intellectual climate in which they live and work determine the problems they investigate, the methods they employ, the results they see, and the ways they write them up (my emphasis).
Knowledge within scientific discourse communities is also constructed (e.g. Kuhn 1970; Knorr-Cetina 1981; Latour and Woolgar 1986; Bazerman 1988; Myers 1990) and academic texts, as ‘the actions of socially situated writers’, are ‘persuasive only when they employ social and linguistic conventions that colleagues find convincing’ (Hyland 2000a: 8 – my emphasis). Science, that is, is ‘socially constructed through discourse’ (Bazerman 1990: 77). In sum, participants’ perceptions differed from mine as I see knowledge as socially constructed and believe that this in turn influences the rhetorical choices and academic writing conventions adopted by different disciplinary discourses.

I did not expect participants to share this social constructionist view of knowledge but I wanted them to pay attention to rhetorical and writing conventions in texts. However, our different underlying assumptions, together with the fact that an awareness-raising approach to teaching English was new to participants, may have contributed to making this divergence in outlook more obvious. The different attitudes to knowledge, language and text that emerge from these paradigms are summarised in the table below:

Table 8.2: Participants’ view of knowledge, language and academic texts.

<table>
<thead>
<tr>
<th>Course participants</th>
<th>Researcher-teacher-participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>• academic texts as ‘photocopies’/’photographs’ of reality/real world.</td>
<td>• academic texts are representations of reality/real world but they are socially constructed by writers bearing in mind:</td>
</tr>
<tr>
<td>• academic texts are not questioned and taken for granted (text authority)</td>
<td>• aim(s)/purpose(s)</td>
</tr>
<tr>
<td>• knowledge discovered (nature authority)</td>
<td>• claim/argument</td>
</tr>
<tr>
<td>• not aware of writer/reader interactions in texts:</td>
<td>• audience(s)</td>
</tr>
<tr>
<td>• participants remain essentially at the ideational level</td>
<td>• text genre</td>
</tr>
<tr>
<td></td>
<td>• academic texts as ‘sites of disciplinary knowledge-making’ (Hyland 2000a: 104)</td>
</tr>
<tr>
<td></td>
<td>• knowledge discovered but also constructed</td>
</tr>
<tr>
<td></td>
<td>• ideas are constructed, negotiated and made persuasive</td>
</tr>
<tr>
<td></td>
<td>• writer/reader interaction in texts:</td>
</tr>
<tr>
<td></td>
<td>• texts as a conversation between writer and reader</td>
</tr>
<tr>
<td></td>
<td>• ideational, interpersonal and textual macro-functions of language (Halliday 1973)</td>
</tr>
</tbody>
</table>
8.6 Participants’ approaches to texts

The reading course was designed on the basis of the underlying assumptions that texts are constructed and that there are differences between the linguistic conventions of academic English and Portuguese. Writers make choices about how to express their ideas but, simultaneously, need to accept ‘a set of conventionalised discursive practices’ (Bhatia 1999: 23) that conform to disciplinary writing conventions in their discourse communities.

Before the course, participants were not aware of certain academic writing conventions, of what meanings they convey and in what ways they may facilitate reading. Participants believed that a text is solely a ‘vehicle for information’ (Johns and Davies 1983: 1). As they read, they attempted to puzzle out the meaning of texts and extract useful information for their reading purposes as can be seen in comments such as:

(8a) ‘[...] I can make sense of some articles or texts immediately’ (Int. S1: Q3.3 – my translation).

(8b) ‘[...] if I want to know, to access that type of information, it [the English language] will not interfere unless it’s a text with a difficult vocabulary’ (Int. S18: Q2.2 – my translation and emphasis).

(8c) ‘Why do you read texts in English?’
‘Aah... It’s the information I’m looking for... It’s the information I’m looking for’ (Int. S18: Q2.3 – my translation and emphasis).

(8d) ‘[...] one of the ways of obtaining information I use more often is reading’ (Int. L5: Q1.1 – my translation).

(8e) ‘Other texts which are neither literary nor scientific [...] I think I find it easy to, to extract the information’ (Int. L5: Q1.7 – my translation).

(8f) ‘[...] if it is a text to squeeze out and extract the information it contains [...]’ (Int. L6: Q3.2 – my translation).
The above comments show that participants approached texts only at the ideational level and did not pay attention to the interpersonal and textual functions of language. Moreover, participants seemed to see texts almost as a picture, a ‘photocopy’ or a ‘photograph’ of nature or the real world. Texts in this view are a source of information which does not seem to be questioned, that is, they appear to take for granted ‘the academy’s perception of its texts as objective, rational, impersonal’ (Hyland 2000a: 4). Because participants were looking for information in academic texts, they tended to remain at the ideational level of language (Halliday 1973), unaware that ‘it is not just what people say or write but also how they word it that conveys meaning’ (Clark and Ivanic 1997a: 10 – emphasis in the original). That this lack of awareness of how certain text features present in academic discourse may affect our understanding of texts is illustrated by some feedback questionnaire comments:

(9a) On metatext:
'I learnt to “situate” myself in the text, i.e. to understand what is going to be “done”, what “has already been done” and what the author “is doing” at that moment in the text’ (2FBQ L11: Q6 – my translation).

(9b) On connectors:
' [I learnt] [t]hat these words make an idea salient and that they are guides for better reading’ (3FBQ S1: Q6 – my translation).

(9c) On discourse structuring words:
'[I learnt] [t]o identify “discourse structuring words” in texts, and their role in them’ (4FBQ S5: Q6).

(9d) On noun chains:
'[I learnt] [t]hat there are complex ways of shortening the texts’ (5FBQ L7: Q6).

(9e) On noun chains:
'I had not realised the complexity of nouns chain [in English in the original] and I believe that they are very important for the understanding of texts’ (5FBQ S17: Q4 – my translation).

(9f) On hedging:
'[I learnt] to categorise the opinions expressed in the text’ by levels of
“commitment” [in English in the original]’ (7FBQ L2: Q6 – my translation).

(9g) On reporting verbs:

'[I learnt] to understand better the position of the author towards the references he/she uses’ (8FBQ L13: Q6).

These comments from the feedback questionnaires of different units show that participants gained new insights into how academic texts are written and a new way of approaching them. They have begun to perceive the presence of the writer in the text and to let the writer guide them – (9a), (9b) and (9g). They are also now paying attention to certain discourse features with a particular role, as in (9c), and which facilitate understanding as in (9e), (9f) or (9g). The verbs chosen – e.g. ‘situate’, ‘understand’, ‘identify’, ‘realised’, ‘categorise’ – point also to the emergence of a new way of looking at texts.

8.7 Participants’ views on texts

Several participants experienced difficulties in completing some tasks because of their views of texts and language. These problems were of three types:

- to separate linguistic events in the text and the external reality to which the text refers;
- to separate the text style from its content; and
- to perceive that the writer could manipulate the text to suit his/her purposes and to conform to disciplinary writing conventions.

8.7.1 Linguistic events in the text and the external reality

Among the difficulties experienced by participants in Unit 2, one is of particular interest as an illustration of participants’ perception of texts: their inability to distinguish
between metatext and external reality. In other words, they had problems in distinguishing between linguistic events in the text (i.e. events in the communication situation expressed through metatextual devices) and the external reality or phenomena (i.e. the propositional content of the text).

This was apparent in some answers to both warm-up (2A) and follow-up (2C) tasks, as illustrated below. The sentences participants chose did not refer explicitly to the organisation of discourse because they could not be classified as any type of metatext.

For instance, the sentences below were labelled as reviews as if they referred to earlier sections of the text:

(10a) 'Recall that at sea level, a column of air weighs slightly more than 1 kilogram per square centimeter and therefore exerts that amount of pressure' (2A: L3, L4, L8, L10, L13, L15, S6, S7, S11, S13, S15 – my emphasis).

(10b) 'Remember that the classification of climates (or anything else) is not a natural phenomenon but the product of human ingenuity' (2C: L1, L3, L4, L5, L8, L12, S3, S4, S5, S6, S7, S8, S9, S11, S14, S15, S17, S19, S20, S21 – my emphasis).

(10c) 'The first attempt at climate classification probably was made by the ancient Greeks [...]’ (2C: L7, L8, S20 – my emphasis)

(10d) 'He [climatologist Wladimir Köppen (1846-1940)] recognized five principal climate groups, each designated by a capital letter’ (2C: L7, L8 – my emphasis).

In the first two examples, (10a) and (10b), many participants’ answers might have been triggered by the use of the two imperative verbs – ‘Recall’ and ‘Remember’. These verbs convey the idea that the thing or event being referred to happened or came before the time the writers are mentioning. However, it is highly unlikely that the writers are referring to previous sections of the book, as they do not make any attempt to use explicit indicators. They are rather drawing on the reader’s background knowledge using relational markers to create the conversational style common in textbook pedagogic discourse. The fact that the verb ‘recall’ was used in a review (i.e. ‘Recall in Chapter 1
that the rate at which pressure decreases with altitude is not constant.' in the same passage in 2A could have influenced participants' choices.

In example (10c), 2 lecturers (13%) and 1 student (5%) labelled the sentence as a review. This may have been because the sentence refers to a remote time. However, this remoteness is in the external reality and not a time within the communication process. In the last example, (10d), the reason for the answer may be either identical to that in (10c) or because the climatologist had been mentioned in the previous paragraph – interestingly the two lecturers were the same as in (10c).

A related problem was the difficulty some participants experienced in distinguishing between cohesive and rhetorical features, that is, between conjunctive internal relations signalling text cohesion and the three metatextual elements that were the focus of Unit 2. Halliday and Hasan (1976: 239-241), when discussing the use of conjunctions in text cohesion, make a distinction between two basic functional components in the organisation of language – the experiential and the interpersonal. As mentioned above in 3.3.3.5, they describe the former as external conjunctive relation and the latter as internal conjunctive relation. In other words, the external relations refer to ‘the relations that are inherent in the phenomena that language is used to talk about’ and internal relations refer to ‘those that are inherent in the communication process, in the forms of interaction between speaker and hearer’ (p. 241).

In Unit 2, in the warm-up task (2A), the textbook writers used connectors to ‘[make] the text hang together’ (Halliday and Hasan 1979: 18) and not to guide readers through the text by providing reference to different sections of the text. Furthermore, as Halliday and Hasan (1979: 226) state: ‘Conjunctive elements, are cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or following) text, but they express certain meanings which presuppose the presence of other components in the discourse.’ Thus, they are neither features of text organisation nor comments on the text and, therefore, cannot be
classified as reviews, previews or action markers. Connectors, which are also metatextual elements, link text material and are a rhetorical strategy employed by writers to close down alternative readings and thus provide an interpretative guide to the propositional content of the text. Below are a few examples that illustrate this misinterpretation of sentences starting with connectors:

(11a) Labelled as action marker:
'Similarly, the pressure of any given altitude in the atmosphere is equal to the weight of the air directly above that point.' (2A: S4, S18 – my emphasis)

(11b) Labelled as action marker:
'Thus, at the altitude at which commercial jets fly, (10 kilometers), the air exerts a pressure equal to only one-fourth that at sea level.' (2A: S5 – my emphasis)

(11c) Labelled as action marker:
'Consequently, the boundaries he chose were largely based on the limits of certain plant associations.' (2C: S7 – my emphasis)

(11d) Labelled as review:
'However, we cannot describe the climatic character of countless locales; that would require many volumes.' (2C: L10, S2, S4, S10, S11 – my emphasis)

(11e) Labelled as preview:
'Furthermore, the criteria are unambiguous, [...]’ (2C: S2, S10 – my emphasis)

Most of the underlined sentences starting with connectors were classified as action markers (4 in 2A and 5 in 2C). Only 2 sentences were labelled as reviews (2C) and 3 as previews (2C). This difference in labelling indicates that participants found the concept of action markers harder to grasp than the concepts of review and preview. It also suggests that their approach to texts created these misinterpretations. This difficulty some participants experienced in recognising the difference between cohesive (i.e. internal and external relations) and rhetorical features (i.e. the three metatextual elements on which Unit 2 focused) is probably related to the fact that they are not used to reflecting on language and texts.
Another example of the inability to make a clear distinction between external phenomena (i.e. external reality) and linguistic events (i.e. events in the communication situation) can be given from the unit on discourse structuring words:

In the dialogue above S8, a weak student, confuses something mentioned before in the text with past time external to it. It is also clear that S8 is unable to understand my explanation that the expression she chose (i.e. ‘during that time’) is not a discourse structuring word because it does not help to organise or structure the text by encapsulating or labelling a preceding part of it. It refers to the propositional content of the text, i.e. the time refers to external reality. This extract suggests that the inability to differentiate different levels in a text – i.e. the text as a linguistic object from its propositional content – causes this misunderstanding.

8.7.2 Text style and content

The unit on nominal style, which according to feedback and post-course questionnaires participants considered the most challenging, illustrates the second difficulty (see
Appendixes 19 and 20). During the session, I noticed that this topic and/or my explanation perplexed participants as the notes I jotted down indicate: ‘Their [SS2 group] session was late – 5.30pm-7.30pm (this may account for students’ tiredness). This group appeared to have some difficulty in following the session (could be seen in their faces and silence). However, they understood the difference between the examples (nominal and verbal style) given in the handout’ (6CN SS2). A colleague, who passed by the classroom where I was teaching this group and looked through a window in the classroom door, later confirmed my perception that SS2 looked puzzled (personal communication). This difficulty experienced by students could be linked to the degree of complexity, abstractness, compactness, formality and lexical density created by the use of nominalisation\(^3\), which may make the texts difficult to process. However, in addition to this reading problem, which the unit aimed to address, some lecturers could not accept that, although nominal style was the one used in academic texts, this was not the only possible way of writing about the same processes or events. This perception seems to reflect the view that texts are ‘photocopies’ or ‘photographs’ rather than representations of the real world, as my general comments indicate: ‘Some participants found it difficult to make a distinction between style and content of academic texts’ (6CN GC).

8.7.3 Texts and writing conventions in different disciplines

At the beginning of the course, participants were not aware that ‘scientists manipulate their texts to achieve a particular rhetorical purpose’ (Wood 2001: 74) but gradually they became more sensitive and aware that:

- the way writers write up texts has both to suit their purpose(s) and to conform to disciplinary writing conventions;
- writers’ choices of certain discourse features can change the message conveyed; and
- writers’ choices depend on genre and contextual factors such as target audience and writer’s aim(s).
In fact, during the unit on hedging, when asked to write two versions of the same sentence, hedged and non-hedged (task 7B-2), participants had no problem in understanding and completing the task, as the transcription excerpts below illustrate. In this task, to which the dialogue below refers, participants had to read the notes on the results and discussion of a short communication which compared the digestibility of five concentrate ingredients in cattle and sheep. They were then asked in pairs to write two short versions of the abstract sentence(s) referring to the results and discussion: one hedged and one non-hedged.

L9 790 Assumed? Assumed?
T Let me see.
L4 No this is the beginning of the sentence.
L9 It's like this.
L9/L4 It's like this.
L9 795 It's like this it's like this <although previous research assumed that sheeps... digested concentrates better than cattle...>
L9/L4 <our results demonstrate that maize gluten feed is better digested.>
T Yes very good... very nice ((low voice)) Just another 's'.
L 800 Aah!
T Yes it's good!
L9 → Now... now a soft sentence. ((T laughs))
L3 → Well now... we could do this [sentence] the other way round.
L7 → Now here... we write suggest.
805 The results suggest and here too and it's done. ((L3, L7 and T laugh))
T Yes you see ((T laughs)) you can say the same thing ((T and LL laugh)) (unint) just changing one or two words you can change completely-
L8 810 I'll lend you a red pen so that you can write there that you got an A. ((T and LL laugh))
L3 (7Trans. LL1) ((unint)) I'd like that.

In this extract, we notice that participants are able to manipulate their texts easily as their choice of verbs shows – 'demonstrates' is then replaced in the hedged version by 'suggest'. The view that the hedged sentence has to be 'soft' or written 'the other way round' shows a clear perception of how word choice can change meaning. Participants
found this manipulation or construction of the text an amusing task. Moreover, participants were easily able to distinguish a hedged from a non-hedged text. For example, in tasks 7A-2 (warm-up task) and 7C-2 (follow-up task), where participants had to choose between the hedged and the non-hedged parts of a discussion section, most were able to identify the hedged text both before and after instruction – only three students chose the wrong version in 7A-2 and one of those three, who had a low proficiency level, also chose the incorrect option in 7C-2. However, probably because of their perception of texts as accurate reproductions of nature, when, at other stages of the lesson, participants instead of writing or labelling text had to reflect on the use of hedging, they seemed to have difficulty in recognising that writers manipulate and construct them through the use of particular discourse features. Participants also found it more difficult to understand that the reasons why academic texts in English use this discourse device more often than Portuguese ones are both social and cultural.

Another reason for this may relate to the above-mentioned point that the hard and soft sciences have different views of knowledge and different perceptions of texts and language. This affects the conventions of different disciplinary discourses and, therefore, also the use of particular discourse features across disciplines. Hedges do not occur as often in the hard knowledge disciplines as in the soft disciplines and in hard knowledge research articles a high proportion of hedges are modal verbs, which ‘are less specific in attributing a source to a view point’ (Hyland 1999c: 117). This may be related to a positivist-empirical view according to which the academic text has more authority than the individual, and the role played by the ‘voice of nature’ is more important than the one of personal relationships (Hyland 1999c: 115). Thus, the fact that writers are responsible for the construction of their own narratives of events and express their commitment and/or attitude through the discourse features can be concealed behind ‘a cloak of objectivity, masking their involvement with an array of linguistic detachment’ (Hyland 1999c: 115). Moreover, because hedging relies heavily on subtle linguistic distinctions, it requires participants to have a higher level of proficiency in English, than was the case with these groups. Secondly, as Portuguese is a more direct and assertive
language than English it becomes more difficult for L2 learners who are not in an
English-speaking environment to perceive the importance of hedging in English, as the
following excerpts suggest:

• Comments made on writing the hedged version of the results and discussion section
of an abstract (task 7B-2)

T Or even if you want you may say the results may suggest or seem to suggest.
L3 Right... correct.
T 815 Or apparently suggest.
L3 Apparently... the results may suggest.
L7 → Then this is this is... this is too much hedging ((LL and T laugh))
T It depends for whom you’re writing how much hedging you need.
(7Transc. LL1)

• Comments made on task 7B-1, in which participants had to hedge underlined verbs

L14 660 The people those people who are...how is it...
L15 Dyslexic?
L14 No...aah... insecure they are good at doing this-
LL ((LL laugh))
L12 Are not usually compatible is okay?
T 665 Are not usually compatible yes I tell you what the writers the writers had <might not seem compatible> you see?
LL Yes ((LL laugh)) / yes.
T <Might not seem compatible> this is also something cultural this has to be with the way people speak the way people are... is not
670 something that is forced this has to do with the Anglo-Saxon culture okay?
LL ((unint))
T It has to do with politeness... in general
L14 Unbelievable! ((L14 laughs))
(7Transc. LL2)

In the first extract, L7’s witty comment indicates a certain unease in dealing with hedges.
She confirms this later by declaring that learning about hedges is of little use (Post-CQ
L7: Q4). Similarly, in the second sequence, L14 makes witty comments which go even
further. The choice of words such as ‘insecure’ and ‘unbelievable’ to describe those who
hedge implies a strong criticism and an inability to accept cultural difference. However,
although hedging may be comparatively less used in Portuguese academic discourse, it is still a feature of both academic and non-academic discourse in Portuguese. The above comments on hedging by L14 indicate that she is just not used to reflecting on language and texts, because, interestingly enough, she is unaware of her own use of hedges in Portuguese. That is, L14 used more hedges than other participants in answering a number of pre- and post-test questions, as exemplified below:

(12a) 'Water availability seems to favour ingestion. However, (the manifestation of) its effect may still appear limited due to the fact that there is another water bowl in the sty' (1Pre-T L14: Q6 – my translation and my emphasis).

(12b) 'The single-space dry-wet hopper feeder, but [the authors] suggest that this issue needs clarification' (1Pre-T L14: Q8 – my translation and emphasis).

(12c) 'No, only a small increase in the group size would be possible' (2Pre-T L14: Q6 – my translation and emphasis).

(12d) '[Heifer] first pregnancy at an early age seems more hereditary than previously reported' (2Post-T L14: Q5 – my translation and emphasis).

(12e) 'Both strains are, roughly speaking, more or less resistant to different fungicides' (3Pre-T L14 – my translation and emphasis).

In examples (12a) and (12b) L14 uses hedges to indicate that the authors of the research article in Portuguese are themselves tentative about results and therefore suggest further research. That is, the two paragraphs to which L14 makes reference in order to answer the questions include three hedging verbs (‘may still seem’, ‘seems to indicate’ and ‘we suggest’). Likewise, in (12c) and (12d) L14 uses the modal verb to express tentativeness. Finally, in (12e), which is an extract from the test that consisted of writing a summary of a short journal article, L14’s interpretation leads her to hedge. In short, comparing L14’s reaction to hedging in the session and her actual reading and writing practice suggests that she may not actually notice hedges. This idea is not new since, as previously mentioned in 3.4.3.9, hedges often seem to pass unnoticed by both L2 and L1 readers (Low 1996; Hyland 2000b) and therefore it is important to raise awareness of this discourse feature in EAP/ESP courses (Hyland 2000b).
8.8 The beginning of a new awareness of academic texts

Despite the difference in disciplinary cultures and the paradigms, which influenced the views of knowledge, language and academic texts, the course, because it ‘[...] dealt with topics which, for some reason, are not included in the usual English syllabus’ (Post-CQ S2: Q5 – my translation) gave participants the opportunity to look at academic texts more critically. That is, the course focused on ‘a conscious awareness of recurrent and useful patterns in the target genre repertoire and the need to reflect on the motives behind their use’ (Hyland 2000a: 148).

Although participants continued to experience some difficulties in analysing texts or asking questions about the reasons and possible effects of the text features discussed in the course, there was a change, however small, in their understanding of academic writing. That is, according to participants’ statements in the feedback and post-course questionnaires, in addition to the development of reading skills (e.g. Post-CQ S10: Q5; Post-CQ S19: Q5) they increased their understanding of and began to pay attention to:

- cross-linguistic differences in writing conventions (e.g. Post-CQ L3: Q5; Post-CQ S14: Q5);
- differences between genres and their structure (e.g. Post-CQ L13: Q5; Post-CQ S16: Q5);
- discourse conventions of written academic discourse in English (e.g. Post-CQ L13: Q5; Post-CQ S5: Q5).

The questionnaires completed at home show also that, while reading, participants started to make use of things they had learned during the teaching units (Appendix 21). Moreover, some participants considered the course useful for a number of other reasons:

(13a) ‘[The course] removed many doubts relating to certain issues in texts’ (Post-CQ S21: Q5 – my translation).
(13b) ‘Everything, I enjoyed the way [the course] was organised a lot, especially because it met daily needs which we weren’t even aware of’ (Post-CQ L15: Q5 – my translation).

(13c) ‘Now when reading a text in English I find it easier to interpret and understand the idea the authors want to convey’ (Post-CQ S20: Q5 – my translation).

These three comments suggest that that the awareness-raising reading course clarified issues, as suggested in (13a), met needs participants were unaware of (13b) and has thus facilitated their interpretation and understanding of academic English (13c).

Finally, S17’s answer to what she found most useful in the course to a certain extent summarises the way in which the course contributed to a new understanding of academic texts: ‘The possibility to “practise” English and to see texts in a slightly different way. It is easier to understand [texts] and to find certain ideas in the same text’ (Post-CQ S17: Q5 – my translation and emphasis).

8.9 Summary

In this chapter, I analysed how participants viewed cross-cultural aspects of writing and reader orientation in academic texts. I suggested that they had difficulty in verbalising their perceptions because they were not accustomed to reflecting on and being critical of texts and language. This is related to issues that emerged while I was analysing the data and which point to conflicting views or perceptions of language and texts between course participants and myself as researcher-teacher-participant. I also argued that these divergences in perspective are grounded in the different disciplinary cultures to which we belong and which make us operate in different paradigms. That is, my underlying assumption when designing the course that texts are constructed and that there are differences between the linguistic conventions of academic English and Portuguese, did not always match participants’ views. This is likely to be a common situation in EAP/ESP teaching contexts where teachers often come from a different disciplinary
culture from their students. Therefore, because this is a central issue in developing and designing EAP/ESP courses, it will be taken into account in the next chapter in which the conclusions of the study will be presented and the implications for designing academic reading courses will be discussed.
Notes to Chapter 8

1 Gee (1999: 27-29) discusses two examples taken from Myers’ (1990) work – an extract from a research article and another from a popularization. He agrees with Myers that research articles are concerned with methodology and theory while popularizations are about animals or plants in nature. However, he further suggests that in addition to two different views, these genres display the different identities of the writer, or what he terms ‘socially-situated identities’ (p. 39). Put differently, in the research article the writer is the ‘experimenter/theoretician’ while in the popularization he/she is the ‘careful observer of nature’ (p. 28). With reference to Bazerman’s work, Gee also argues that, although these two genres coexist in the present, they in fact replicate an historical difference: ‘In the history of biology, the scientist’s relationship with nature gradually changed from telling stories about direct observations of nature to carrying out complex experiments to test complex theories’ (p. 28). That is, ‘they [ways with words] are always acquired within and licensed by specific social and historically shaped practices representing the values and interests of distinctive groups of people’ (p. 29 – italics in the original).

2 Myers, in a later article (1994), describes the limitations of his analysis in Writing biology (1990). First, he expands his previous argument by suggesting that the ‘narratives’ of research articles and popularizations could have other kinds of actors than ‘scientists’ and ‘organisms’ (i.e. plants or animals) depending on the research field. That is, other texts with more complex narratives, such as ‘reports that link scientific innovations to social concerns’, could have different kinds of actors (p. 180). Second, in Writing biology he had only looked at a limited set of events, i.e. ‘discovery stories involving observation in the field or laboratory’ (p. 180). However, ‘[t]here are other devices for making science news – personalities, oddities, extremes of scale and, most important, links to defense or medicine’ (p. 180). He then analyses research articles and popularizations from a different field – molecular biology – and finds several differences namely in type of narrative, actor and event. He therefore expands his previous argument on the dichotomy between a narrative of science and a narrative of nature as he concludes: ‘different styles of research articles and popularizations construct different views of science’ (p. 188).

3 Gee (1999: 31) summarises this problem as follows: ‘Nominalizations are like trash compactors: they allow one to take a lot of information – indeed, a whole sentence’s worth of information – and compact it into a compound word or a phrase. One can then insert this compacted information into another sentence (thereby making bigger and bigger sentences). The trouble is this: once one has made the compacted item (the nominalization), it is hard to tell what information exactly went into it. Just like the compacted trash in the trash compactor, you can’t always tell exactly what’s in it.’
9. Conclusion and implications for teaching

In Chapter 8, I argued that there was a conflict of cultures between the course participants and myself, as we belong to different disciplinary backgrounds, and that these divergences affected the way the course ran. In the present chapter, I will start by listing the research questions which were introduced in Chapter 4 and commenting on the results of the data analysis. Next, I will reflect on the whole process of implementing a reading course in tertiary level education, drawing on the insights I gained from the present study and relating them to the discussion in earlier chapters. I will focus on:

- threshold level and background knowledge;
- needs analysis: immediate or delayed needs;
- wide- versus narrow-angled focus;
- disciplinary variation;
- disciplinary cultures; and
- LA approach.

I will then describe the changes I would make to the course, keeping in mind the insights I gained from it. I will conclude by briefly suggesting some areas in which I think further research is needed.

9.1 Conclusion

As mentioned in Chapter 1, my motivation for undertaking this study was my perception of a need to address difficulties encountered by L2 readers of academic English in a college of agriculture. I questioned whether the reason for such difficulties was lack of LA and therefore taught an LA reading course and tested learners before and after instruction. In Chapter 4, I explained how in the course of data analysis a number of issues emerged, which led to a modification of the research focus. I thus formulated new
research questions and followed up new lines of enquiry, which could be categorised under the general heading of conflict of disciplinary cultures. I will now summarise the conclusions I have drawn both regarding the original and the new research questions, beginning with the latter.

1.a. To what extent are participants’ difficulties related to proficiency in English?

As shown above in Chapter 7, low proficiency participants encountered difficulties related to understanding of the content of the units or completion of tasks and tests. The first two problems are illustrated in the analysis of Unit 4 (see 7.3.4) and of the homework (see 7.3.10). The last difficulty is illustrated in the discussion of pre- and post-tests 4 (see 7.2). In addition, many participants who were more proficient in English recognised that they had some problems, as illustrated in the comments of S9 in an interview which took place at an early stage in the course: ‘And now when I started the course, you see? I feel that after all I’m not as good as I thought ((Laugh)) I’ve... I think... It’s more difficult than I’d so far. [...] But I thought I was better [than I actually am] ((Laugh))’ (Int. S9: Q2.5 – my translation). In short, those participants who showed a very limited language proficiency in English do not seem to have benefited much from the course.

2.1a. Are participants’ difficulties related to rhetorical differences between Portuguese and English academic writing styles?

2.2a. What are the cross-linguistic aspects of academic writing that participants had problems with? What is the source of these problems?

Lack of LA is rooted in lack of cultural awareness, underlying which is ignorance (at least partial) of the fact that texts are socially constructed and written in different ways in different countries, disciplines and social groups. Therefore, participants experienced two main difficulties related to the cross-linguistic aspects of academic writing:
• a writer responsible (English) versus a reader responsible (Portuguese) view of texts;
• word order in English differs from that in Portuguese.

Two incidents throw some light on the first question. First, L6 refers in an interview to the fact that the reader is responsible for effective understanding (see 8.4.2 for the quotation). Second, my notes on Unit 2 also point to the same difficulty: ‘Most participants were unaware of the fact and had difficulty in seeing that the writer could guide the reader in the text through the use of metatext. At first it was difficult for some participants to separate earlier/later (review/preview) in the text from real time (e.g. of the experiment) or the difference between the text itself and real life. The concept of action markers was not easy for everyone’ (2CN GC). It is clear from these comments that my own view as the teacher of the course is that the first difficulty was linked to participants’ perception that the reader has to dig out the meaning of a text. That is, to the belief that readers are responsible for effective understanding which results from a focus on the ideational aspects of texts. Moreover, because they viewed scientific texts as objective, impersonal and accurate reproductions of nature (7.3.2 and 8.7.1), participants either misinterpreted the interpersonal function of texts or saw it only unconsciously. In addition to this participants were unaware that English is a writer-responsible language. This is suggested by the fact that most participants acknowledged unfamiliarity with the issues brought up in the course (Appendix 19). As a result they initially misinterpreted or failed to see the interpersonal aspects of texts and some participants had problems with hedges, a category of interpersonal metadiscourse through which writers manipulate and construct texts. They also found it difficult to understand that there are both social and cultural reasons why hedging is comparatively less used in Portuguese academic discourse than in English (examples are given in 8.7.3) as is illustrated below:

L15 Although I agree completely with their reasons for using these... the hedging I think that in certain... situations or it also depends on the type of methodologies that we're using we've to be direct and the more direct the better and we aren't impolite we've to be direct
and... more concise so that there aren’t so many uncertainties because if... there are so many uncertainties... we don’t know anything.

But not all texts not all topics you read use a lot of hedging.

Right, that’s why I’m so practical and direct because my field is like that (L15 laughs)).

The second cross-linguistic difference encountered by participants is related to the micro level features of texts. That is, the use of word order in English differs from that in Portuguese, which can cause problems of understanding, particularly in the case of noun chains (7.3.5 and 8.2.2). This is illustrated by comments in a number of feedback questionnaires:

(1a) ‘I learnt to notice noun chains, which mean something different from what [I believed could be] translatable into Portuguese’ (5FBQ L11: Q6 – my translation).

(1b) ‘[use in future reading] ease in translating on some texts in which sometimes the “word order” [of some phrases] make no sense’ (5FBQ L8: Q6 – my translation).

(1c) ‘[I would like to learn more] because then when I have to translate I won’t be so “embarrassed” when I see many nouns’ (5FBQ S15: Q4 – my translation).

(1d) ‘[I learnt] that words do not mean what we may think at first sight, and that there are differences between Portuguese and English’ (5FBQ S21: Q6 – my translation).

(1e) ‘[I learnt] how to translate and/or understand correctly expressions that are found frequently in texts and that until now I’ve misinterpreted (5FBQ S3: Q6 – my translation).

(1f) ‘It helps me to interpret certain sentences and words with a different structure from Portuguese’ (5FBQ S8: Q6 – my translation).

(1g) ‘It’s important to understand some complicated sentences’ (5FBQ S9: Q5).
Even after instruction, participants had difficulty in converting phrases into word chains, that is, in getting the word order right, as illustrated in the analysis of Unit 5 (see 7.3.5). However, in both pre- and post-tests 4 both lecturers and students show better results than in the tasks completed in the lesson, possibly because all they had to do was choose between two explanations for each noun chain. In test 4, the answers to question 5 (on noun chains), lecturers’ results after instruction were similar to the results obtained before instruction and students’ results only slightly better than before instruction (Appendix 18).

On the question of whether the course reduced these difficulties, there are not enough data to draw firm conclusions. However, according to both feedback and post-course questionnaires, participants’ perceptions suggest that, by raising their awareness of cross-linguistic aspects of academic writing, the course helped to overcome these two difficulties (Appendixes 19 and 20).

3a. Why did participants read texts differently from me? Are there underlying cultural/social/educational reasons for this?

Before the course, participants saw texts as a source of information to be accepted as such, as shown in 8.6 and in the examples below:

(2a) ‘In the case of more technical texts, or more objective texts even when they aren’t really scientific but that are more objective aah... ... […]’ (Int. L5: Q3.1 – my translation).

(2b) ‘[to read academic texts with the objective of] extracting information from the text and not so much the, the specific understanding of the text, in the understanding, let’s say, more... more precise, isn’t it?’ (Int. L5: Q3.1 – my translation).

(2c) ‘And there are others [academic texts] that... it’s really that topic and then I’ve got to read it all because I need to know it all’ (Int. S5: Q2.13 – my translation).

(2d) ‘[...] if it’s something academic or something I’ve to read aah... [...] because I’ve really got to know what’s there’ (Int. L10: Q2.13 – my translation).
(2e)  ‘Aah... [I read] the chapters that have... more need of... to understand or to learn [...]’ (Int. L15: Q2.11 – my translation).

(2f)  ‘I use books more as aah... a source [of information]’ (Int. L10: Q2.10 – my translation)

(2a) indicates a view of scientific texts as ‘objective’, of the text as the authority which reflects what was discovered in nature. Both lecturers and students rely on this text authority as texts are sources of truth as illustrated in (2c), (2d), (2e) and (2f). These comments show that participants’ concerns are only related to the ideational aspects of texts. They also indirectly reveal their underlying assumption that language and texts are simply tools for expressing the truths discovered in nature (i.e. nature authority) and are, as such, faithful representations of the world (i.e. text authority), which is related to their scientific training (see 8.5.2). In other words, they take academic texts for granted as they are not used to reflecting on or looking at texts critically1, whereas I have been trained to look at texts as linguistic and political2 objects, and to pay attention to rhetorical and writing conventions. The examples below, taken from lesson transcripts, illustrate how my view of language and texts differs from that of participants:

•  On hedging:

(3a)  ‘[...] he or she [i.e. the writer] is going to use expressions or words which are going to show this tentativeness and this is one of the characteristics of academic English...’ (7Transc. LL2).

(3b)  ‘It’s very different to say... this will happen... this should happen... or this could happen... it changes completely the meaning of your sentence just by changing for- in this case the modal verb okay?’ (7Transc. LL2).

•  English as a writer-responsible language:

(3c)  ‘[...] remember... that in English writers write for the reader and do not write for themselves... so a way... of showing that you are writing for a reader is to show... attention... to pay attention to the reader and...’ (7Transc. LL2).

(3d)  ‘So you have a sentence underlined and the author considers that this is an
<assumption> okay? It's different if the writer... said this is a statement or this is a question or this a problem. So he is explaining how he understands how he interprets what he said before or she said before. And this is very important because it's a way of helping the reader to understand the text in the correct way' (4Transc. SS1).

(3e) ‘So these are different characteristics from the language are something that the writer gives you in English to help you’ (4Transc. SS1).

(3f) ‘[...] so we are always looking at things not at the content so much of the text but how the the writer helps you to... link and connect information inside the text to help you’ (4Transc. SS2).

(3g) ‘[...] you know that academic English especially written in English has normally this characteristic of being concise short condensed and compact. So this a way of compacting information. The second reason why we talk or we can use discourse structuring words it’s it’s a way of helping the reader okay. The writer decides okay I am going to label I am going to tell you what I- the way I understand what I say’ (4Transc. LL1).

• Writers write having specific audiences in mind:

(3h) ‘So if you add these words [modal verbs] to ver- to verbs you change the interpretation you’re doing about your own research. [...] In textbooks... because... the researcher is talking to an audience that knows less than they know and because they want to teach them... they tend to use... less... aah modulation they use less hedging than in a... research article. [...] you can say it in such a different way depending ((L coughs)) to whom you’re writing depending on your audience...’ (7Transc. LL1)

(3i) ‘Now when writers are writing for their peers... it’s more complicated because... as you all know when you’re writing for being accepted to be published in a journal there are more things involved and you cannot write exactly the way you want’ (7Transc. LL1).

• Cross-linguistic aspects of academic writing:

(3j) ‘I believe or I think that hedging is more used in English than in Portuguese although in Portuguese it’s also used... but it- I think it’s a cultural thing that has to do with the way people write with the way people speak in their own language... and... sometimes if you are not aware if you’re not paying attention to this you might read what the writer is saying... not in the correct way (7Transc. LL1)
we [the Portuguese] say it in a different way but in English this is a constant the use of this or these in the plural with the discourse structuring word to help you to go to the next step in the text' (4Transc. LL1).

The fact that many participants were unfamiliar with the issues covered in the course or that there were rhetorical differences between Portuguese and English academic writing is related to their perception and understanding of texts. This view is summarised in L5’s comment in the interview: ‘That is to say at first I can’t see any difference between the structure, text organisation, let’s say, of English texts although we’ve discussed it in this course and you’ve made us aware of those aspects, let’s say and of some specificity that English writers or native speakers of English use in [academic] writing [...]’ (Int. L5: Q3.4 – my translation).

As mentioned above in 8.3, three factors may account for this. First, participants were not used to thinking critically about language and texts (Appendix 19). Second, participants come from a different disciplinary culture and have different approaches and concerns about reading (Appendix 19). Finally, as the examples taken from the interviews and feedback questionnaires in 8.3 illustrate, most participants had not reflected on or thought about the differences between English and Portuguese academic discourse before. However, when explicitly asked whether academic discourse differed in the two languages, some of the participants interviewed before the course mentioned a number of points (see 8.2 and following sections). Surprisingly, as referred to above in 8.2.1, the students interviewed were more sensitive to differences in discourse patterns across languages than lecturers. I had expected lecturers to be more aware of such differences as they are more experienced readers in both languages than students. Moreover, as mentioned above in 7.3.10, the questionnaires completed at home show that, while reading, participants started to make use of things they had learned during the teaching units (Appendix 21). This suggests that the course contributed to the development of a new understanding of academic texts (see also 8.8).
Finally, in educational research it is important to find out whether the teaching approach has face validity. In the present study this validity was provided by both participants and teacher-observer evaluation of the course. Participants’ responses to the retrospective questionnaire (Appendix 20) disclose a positive reaction to the approach used. Participants felt that the course contributed to improvement in their learning and reading strategies, that is, they believed in the instruction they received. The view that an LA approach is pedagogically valuable and addresses students’ reading needs is shared by the teacher-observer who commented, as quoted above in 5.5.2: ‘This methodology seems to facilitate the approach to texts which are not easy to understand and are compact and not easily accessible either graphically or rhetorically’ (Obs.N. GC – my translation). Furthermore, immediately after the course the same observer expressed interest in the idea of offering a joint reading course to 4th and 5th year students in the college after my return (teacher-observer personal communication 2001).

I will now turn to the initial research questions. Although there is not enough evidence to draw firm conclusions about them, some suggestions can cautiously be made. Thus, in answer to the initial research questions, which were formulated on the basis of the choice of unit topics, the following points can be proposed:

1. Is either of the groups (i.e. lecturers and students) more likely to have an improved awareness of the macrostructure of journal articles after instruction? If so, are students more likely to have an improved awareness of the macrostructure of journal articles since lecturers will already have more elaborate schema for the macrostructure?

My expectation was that since students were still in the process of specialising in their subject field, and since they might not have been exposed to as much academic writing as lecturers, they were more likely to have an improved comprehension of the macrostructure of journal articles after the course. Although the data I obtained did not shed light on this question, my perception as the teacher who taught the course was that
this expectation was confirmed by participants’ performance in class. However, surprisingly, participants’ perception differed from mine as the results of both the feedback and post-course questionnaires suggest (Appendixes 19 and 20). Although most participants believed that they made most progress in their ability to use awareness of text structure or organisation (82.9%) to guide their reading, more lecturers (86.7%) than students (80%) considered that they had improved a lot. Moreover, whereas 60% of the lecturers considered Unit 1 very useful only 50% of the students shared this opinion (Appendix 20). However, these differences between lecturers and students are slight and more research would be needed to find out whether they are significant. Surprisingly, the eleven students and lecturers interviewed before the course said they had no problems with text structure and organisation. This means that there was a mismatch between participants’ subjective needs or ‘wants’ and their ‘necessities’ (i.e. what they should know to achieve an effective performance in the target situation) (Hutchinson and Waters 1987: 55-56).

2. Are participants able to read academic texts more effectively (i.e. by getting more information from the text) and efficiently (i.e. by reading faster) by the end of the course?

Because of the change in research orientation described in Chapter 4, it is impossible to draw firm conclusions about this question. As mentioned in 7.2, there is no evidence to show whether participants read more efficiently and effectively as the results of pre- and post-tests 1 and 2 could not be used. However, there are two factors that suggest some improvement. First, the results of pre- and post-tests 3 imply that participants read more effectively. That is, improvement in the writing of summaries (i.e. 33.3% of the lecturers and 60% of the students) was likely to be due to reading skills improvement, since participants were not taught how to write summaries during the course (see 7.2). Second, participants’ commented on their reading speed on the post-course questionnaire and lecturers and students differed in their perceptions. That is, not surprisingly, more students (40%) than lecturers (20%) believe they improved their reading speed a lot.
(Appendix 20) probably due to the fact that lecturers have more reading experience both in L1 and L2 than students.

3. Do participants develop a better comprehension of the ‘real content’ (Dudley-Evans and St John 1998: 11) of academic texts (i.e. the language used in a particular context to convey meaning) by the end of the course?

The results of pre- and post-tests 4 indicate a better comprehension of the ‘real content’ as after the course a number of participants, especially students, showed improvement in their test ratings (7.2 and Appendix 18).

4. Do participants with a lower level of English proficiency at pre-test stage show more improvement in reading than those with a higher level of English proficiency? Or do participants show the same improvement irrespective of their initial proficiency level?

There was not enough evidence to answer this question, as pre- and post-tests 1 and 2 had to be discarded as previously mentioned. However, as mentioned above, participants with very limited proficiency in English did not benefit much from the course.

5. Which group makes better overall reading progress? Do lecturers make better overall reading progress than students?

Although it is difficult to determine which group made better overall progress and more evidence would be needed, according to the results of pre- and post-tests 3 and 4 students progressed more than lecturers (7.3 and Appendix 18).

6. Is instruction in the macrostructure/textual organisation more beneficial to learners? Or is instruction in micro level features of the text more beneficial to learners? Which group benefits more?
There is not enough evidence to answer this question. However, according to their answers to feedback and post-course questionnaires, overall participants perceived the macrostructure/textual organisation as more beneficial than micro level features (Appendixes 19 and 20). My perception as the teacher of the course confirms that the micro level features were more difficult for participants, requiring more reflection on language and a higher level of proficiency in English than was the case with many participants.

To summarise, it can be suggested that participants increased their awareness both of academic discourse and of the differences between Portuguese and English and that this allowed them to modify their views of language and texts. Their reading performance also improved, as is shown in the results of tests 3 and 4. Low-level proficiency participants, however, did not benefit much from the course. The insights gained from this study can be described in terms of the following diagrams. The first shows the different positions of participants and myself before the course began and the second the changes which occurred as a result of the course:
Figure 9.1: Cross-cultural factors in reading instruction in a Portuguese agriculture college before the course.

Figure 9.2: Cross-cultural factors in reading instruction in a Portuguese agriculture college after the course.
At the start of the course, because I wanted to improve the reading ability in English of the participants by raising their awareness of academic text features and to show them how English differs from Portuguese, my aim was to lead them from the bottom right-hand area of the diagram to the top right. However, during this process I realised that, because I was introducing participants to a new way of approaching language and texts and making them aware of text features they had never noticed before, I was also attempting to show them that texts are a human creation which always carry values of some kind. In terms of the diagram, I was therefore leading them from the right-hand side (i.e. sciences) to the left-hand side (i.e. humanities).

My experience during the study

Because this study is also my ‘story’ as a teacher-participant-researcher I will comment now on how this whole process has been simultaneously a ‘journey’ and a learning experience for me and describe the insights I gained from the whole process. During this study I attempted to combine the insider view of a situation with which I was familiar with the outsider vantage point, which helped me to develop a deeper knowledge not only of my own teaching practice but also of my assumptions and views.

As I acted, listened to and scrutinised the views of course participants in a way that I was unaccustomed to doing and later reflected on the whole process, I became increasingly aware that the environment where I work is more rich, interesting and complex than I had previously thought. I came to realise that the teaching reality was not exactly as I had seen it so far and I discovered pedagogical problems of which I had previously been, at best, only vaguely aware. That is, I gradually became conscious that there was a difference between the course participants and myself. I recalled that in the past I had often discussed with my English-teaching colleagues and the college librarian (the only people with backgrounds in the humanities) how we felt intuitively that, as engineers or ‘science people’, most of our colleagues perceived the world in a different
way from us, wrote about it differently and had a different sensitivity to the written word. In short, they lived in a different ‘world’ from ours.

As I taught the course and experienced difficulty in explaining course topics such as nominal style and hedging in a simple, clear way I reflected on participants’ reactions (or lack of) to what I taught them. As I considered the possible reasons for their attitudes and responses, I came to understand that I was not only trying to improve their English and their reading skills but I had also been trying, to a certain extent unconsciously, to convey to them my own view of language and texts. Moreover, in the course of this study I also changed my own view as I gradually became more interested in and attached more importance to the qualitative data and the ideas ‘hidden’ in participants’ words and attitudes. I realised that the main pedagogical problem in my teaching was that I needed to come to a deeper understanding of the disciplinary cultures of participants and appreciate how they differed from mine. On the other hand, I continued to believe that it would be useful for learners to come to understand that texts carry values, because they are created by people and follow social or academic conventions because writers are not only part of a discourse/academic community but also situated historically. In short, the information conveyed in academic texts should not obscure the fact that there is also rhetoric in texts and that awareness of this can facilitate comprehension. This was a gradual discovery which resulted from a critical reflexive research process in which I looked at myself, examined the assumptions that lay behind my views and attempted to view my own behaviour with the eyes of a stranger or ‘by making the familiar strange’ (Holliday 2002: 13). At the end of this process, I had a new view not only of the course participants and their beliefs but also of myself. This experience is summarised by the diagram below, which shows how my own position changed:
9.2 Practical implications for designing an academic reading course

In the following sections I will reflect on a number of implications for teaching which are rooted in what this study enabled me to learn about L2 reading instruction using a LA approach.

9.2.1 Threshold level and background knowledge

Both the language proficiency and the background knowledge (i.e. knowledge of the subject-area treated by the texts used in English courses) of students seem to play a major role as a foundation for L2 reading. Thus, both must be taken into account when developing an academic reading course. In the present study, the former was taken into consideration because the course I designed was aimed at students at Upper-Intermediate
level or higher, or Intermediate 3 upwards to use the cloze test level description (see 7.1). However, several participants, especially students, were well below this level of proficiency as the cloze test results show (7.1 and Appendix 17). This inadequate mastery of L2 created serious difficulties for some participants (e.g. S8, S11, S15, S20, L11, L12) when reading some of the academic texts, discussing the unit topics and engaging in course tasks and tests (7.3.2, 7.3.4 and 8.7.1).

This problem is related to what has been referred to in the literature as the Language Threshold Hypothesis (e.g. Alderson 1984), which states that ‘students must have a sufficient amount of L2 knowledge (i.e. vocabulary, grammar and discourse) to make effective use of the skills and strategies that are part of their L1 reading comprehension abilities […] The threshold will vary depending on the reader, the text and the topic’ (Grabe and Stoller 2002: 50-51). Because there is not a general threshold level, but it varies with text language, text topics, background knowledge and task type (Urquhart and Weir 1998; Alderson 2000; Grabe and Stoller 2002), even the weak participants mentioned above were occasionally able to read certain texts which seemed to be above their levels of linguistic proficiency. However, the benefits that those weaker participants may have gained from the course are likely to have been very limited, as the numerous difficulties they encountered show (some examples are given in 7.3.2 and 7.3.4). That is, because of insufficient L2 linguistic knowledge, they were forced to ‘devote most of their cognitive resources to figuring out the language of the L2 text’ (Grabe and Stoller 2002: 51) leaving few resources either for processing texts fluently or for observing and making use of the discourse features which were the intended focus of the course.

There is ample evidence in the literature to support this view of the existence of an L2 proficiency threshold in reading. As mentioned above in 3.1.2.5, limited language proficiency in L2 may obstruct general reading ability in a foreign language (Cohen et al. 1979; Clarke 1980; Hudson 1982). This can result in partial failure, even in proficient L1 readers, because a poor command of L2 may cause a ‘short-circuit’ in the reader’s
ability to use L1 reading skills in it (Clarke 1980). Two other studies which provide evidence for the threshold effect, showed that, although the students were supposed to have the necessary background knowledge, they were unable to use it when reading in English because of their limited L2 proficiency (Mohammed and Swales 1984; Ridgway 1997). Another study of the effect of background knowledge in EAP reading test performance shows that low proficiency students were neither able to make use of top-down processes to interpret reading texts nor to make full use of their background knowledge because they did not reach a certain linguistic threshold (Clapham 1994: 268; 282).

More recently, Schoonen, Hulstijn and Bossers (1998) carried out a study of metacognition and language threshold level with Dutch students in which the students completed tests on reading comprehension and language-specific vocabulary knowledge in both L1 (Dutch) and L2 (English). They also completed a questionnaire on the metacognitive knowledge of reading. According to these authors, the most important implication for L2 teaching is that the authors ‘found evidence for the so-called threshold hypothesis, according to which (metacognitive) knowledge of reading strategies, reading goals and text characteristics cannot compensate for a lack of language-specific knowledge if the latter remains below a certain threshold level. The limited FL knowledge “short-circuits” the transfer of reading skills to the FL’ (p. 72). Thus, this study stresses that an effective L2 reader needs to have both language knowledge, which will allow bottom-up processing, and background knowledge for top-down processing, while strong metacognitive abilities will act as a mediator.

In short, all these studies show that there is an L2 linguistic threshold that has to be crossed before a student can both become an effective L2 reader and transfer L1 reading ability to an L2 reading context. Similarly, it can be argued that ‘[o]ne major consequence of passing through the linguistic threshold is that students free up cognitive resources, which were previously used to figure out language structures and vocabulary, to read more strategically and transfer L1 strategic reading practices to the L2 setting’
(Grabe and Stoller 2002: 51-52). There is, therefore, a strong case for the use of a placement test at the outset of an academic reading course in order to ensure that students do not attend a course well beyond their proficiency level.

In addition to the finding that inadequate language knowledge prevents successful L2 reading, the data analysed also suggest that background knowledge (here it means knowledge of the subject-area treated by the texts used in the course) plays an important role in L2 reading. In the present course, the relevance of background knowledge is illustrated, for instance, by Unit 5 in which participants were asked to translate noun chains. Lecturers completed this task more easily than students did. This is likely to be because the former had more scientific background knowledge than the latter (see 7.3.5).

As mentioned above in 3.2.2.5, this view is supported both by reading theorists (e.g. Rumelhart 1980) and other reading researchers (e.g. Alderson and Urquhart 1985; Nunan 1985; Clapham 1994). This question is also taken up by Carrell (1983, 1988) who argues that lack of content schemata knowledge hinders comprehension. Moreover, Clapham (1994: 281-282) suggests that the contribution of background knowledge to reading comprehension increases with text specificity. This issue of text specificity is directly related to the perspective (wide- or narrow-angled) chosen for a course and to the question of text selection, which I will deal with in 9.2.3.

9.2.2 Needs analysis: immediate or delayed needs

In addition to the consideration of learners' levels of proficiency and background knowledge, needs analysis should also be taken into account. That is, before designing and implementing a course information should be gathered about the course participants, their academic needs and the teaching situation. This has been widely discussed in the literature (e.g. Munby 1978; Hutchinson and Waters 1987) but here I will only consider immediate and delayed needs (Dudley-Evans and St John 1998: 148-149). The former
refer to needs at the time the English course is run and the latter to those at a later stage, either during the participants’ studies or in their future professional life.

This issue is neglected in some tertiary institutions, especially in situations where subject courses are taught in the national language and students are therefore less exposed to academic English. In such cases English courses are included to support other subject courses, that is, English is only ‘a “carrier” subject’ (Kennedy 2001: 25). Probably as a result of increasing economic pressure, course designers’ perceptions and student needs are not always matched by the willingness of institutions to offer English at different stages of a degree course. As mentioned in 2.1.1, students are generally at an early stage in their university studies, more often than not in the first year, and thus unaware of a need to read academic English which will become more pressing towards the end of their undergraduate studies (Robinson 1991; Dudley-Evans and St John 1998).

The present study shows that there is a strong case for running such EAP/ESP courses in the final years of undergraduate study as a complement to the work done in earlier years. Whereas the latter deal with students’ delayed needs, the former answer the student’s immediate need to write a dissertation or a degree project report in the final year. This can be seen in final year students’ motivation and participation (see 6.3.4), as well as their perception of the usefulness of the course for both L2 reading/writing and for their degree project reports (Appendixes 19 and 20). Furthermore, in the case of my own work place, this might encourage subject lecturers to include more English texts in their reading lists (see 2.1.1) and could also lead to more regular collaboration between language and subject lecturers (see 9.2.5 below). Finally, this could also contribute to raising the status of EAP/ESP courses (Dudley-Evans and St John 1998: 149).

Another important issue that emerged from this study, and which has already been addressed in the literature, is the increasing need to run courses for academic staff (see e.g. Frankenberg-Garcia 1991; Sengupta, Forey and Hamp-Lyons 1999). In the case of the college where I work the course described in this study was the first English course
to be offered to the academic staff. Lecturers’ comments in feedback questionnaires confirm the relevance of implementing courses that address their particular needs (Appendix 19). In other words, ‘the growth of English as the leading language for the dissemination of academic knowledge has had a major impact around the world, binding the careers of thousands of scholars to their competence in a foreign language and elevating this competence to a professional imperative’ (Hyland and Hamp-Lyons 2002: 2). Hence, higher education institutions, especially in non-English speaking countries, should offer EAP/ESP courses to address the immediate need of their staff to become proficient in English. This might not only foster the promotion of these institutions through their staff publications in English, but also contribute to bringing their countries into the international scientific forum and eventually help to increase the economic prominence of their countries in the world.

9.2.3 Wide- versus narrow-angled focus

Another issue that needs to be considered is whether the course should have a wide- or a narrow-angled approach, which will, in turn, influence the selection of academic texts, as discussed above in 5.2.3. When the group is as mixed in terms of level as the ones I had in this study the materials used in the tasks completed by every student should be mainly common core materials so that understanding is not impeded (Dudley-Evans and St John 1998: 152; Clapham 2001: 199-200), especially in the case of undergraduate students. Otherwise, I would suggest the use of specific texts only if the students all work in the same scientific area and thus have the same background knowledge, or when the course is designed for postgraduate students or staff from different disciplines.

However, I will suggest below in 9.2.4 that, in a number of tasks, even undergraduate students could work individually with specific texts from their own field and then compare or contrast the results with a peer who specialises in another area so that disciplinary variation can be taken into consideration. A portfolio with specific texts could be provided, covering the different academic genres in the scientific areas studied.
by a particular group of students. The material selected for the portfolio would include academic texts written by both NSs and NNSs. As discussed in 5.2.3 and 8.2.4, the reason for including such a wide range of texts, is to expose students to the types of material they are likely to come across, i.e. texts that come from practising scientists and observe the norms and conventions of international research, and to teach them to distinguish different academic genres (e.g. the distinction between research articles and undergraduate textbooks). Thus, for certain tasks, students would be able to select the texts they found more appealing or which were related to their area of study. The use of such a portfolio would avert some of the difficulties faced in the present study, in which participants were encouraged to read their own texts at home and bring them in to analyse during the sessions (see 5.2.3). There were three problems in allowing participants, especially students, to choose their own texts. First, some of them did not know which to choose and asked me to provide them with texts (e.g. 5CN SS2). Second, they often either chose over-difficult texts or texts which were not long enough (see 7.3.10). Third, frequently participants did not bring texts and, as I recorded in my notes, relied on me to supply them in the class. In this last situation, participants did not necessarily find the texts I had selected either interesting or relevant either to their studies or their work (see 5.2.3).

This attempt to balance the tensions between a wide- and narrow-angled approach, and the use of specific and core materials in the course, is a means of dealing simultaneously with heterogeneous groups and other institutional constraints. Put differently, it is a way of addressing ‘the tension between pedagogic convenience and pedagogic effectiveness’ or ‘the tension between disciplinary overlap and variation’ (Bhatia 2002: 25), which will be outlined in the next section.

9.2.4 Disciplinary variations

A further factor to take into account is the issue of disciplinary variation. In other words, academic reading courses should raise awareness of the fact that, although genres and
certain discourse features are common in academic discourse, there may be disciplinary variations and preferences (e.g. Dudley-Evans 1993; Hyland 2000a, 2002b, 2002c; Bhatia 2002; Samraj 2002) and that the core features presented in any course must be seen critically in the context of each discipline (e.g. Dudley-Evans 1994, in which this issue is discussed in relation to listening). Or, as Bhatia (2002: 39) puts it ‘[o]n the one hand, it is necessary to take advantage of the common ground; however, on the other hand, it is equally desirable to be aware of disciplinary distinctions’. One possible way of exploring this issue in a course would be through the introduction of comparative elements in tasks completed during the lesson such as:

a) genres within the same discipline (e.g. textbooks, research articles, review articles, short communications, scientific letters);
b) discourse features in different genres (e.g. hedges and boosters);
c) genres in different disciplines (e.g. biology, biotechnology, horticulture, pest management, dairy science, soil science);
d) discourse features in the same genre but in different disciplines (e.g. previews and reviews in textbooks in microbiology and ecology);
e) the same text in English and L1 (e.g. conference proceedings abstract; chapter of a textbook written originally in English and the L1 translation).

This strong emphasis on comparative elements, which the present study lacked, would be of pedagogical value (e.g. Bhatia 2002; Hyland 2002b, 2002c; Samraj 2002; Swales and Feak 2000), as the comparison of different genres or contrasting features may facilitate the understanding of the topic, especially if it is a new one. It may also help students to understand texts and writing practices in a new way by developing a critical distance (i.e. ‘preparedness to question and reflect on the meaning and uses of language’ (Wallace 1999: 98)) towards the texts they read, which the course participants lacked (discussed in Chapter 8); and by questioning the view, often shared by subject specialists, that academic discourse conventions are universal and self-evident rather than the result.
of different literacy practices (Lea and Street 1999). In other words, ‘[t]he challenge is to show that the forms and structures revealed by analysis and presented in teaching materials are simply ways of organising arguments and knowledge within particular communities’ (Hyland 2000a: 147). Exploitation of this discipline specificity will thus allow students to become aware that certain features may vary across contexts and purposes and ‘often differ considerably in their frequency, expression and function across disciplines’ because ‘[t]he discourses of the academy do not form an undifferentiated, unitary mass but a variety of subject-specific literacies’ (Hyland 2002c: 391; 389).

9.2.5 Disciplinary cultures

The fact that language course designers/teachers and students frequently belong to very different disciplinary cultures also needs to be taken into account in the design of any EAP/ESP reading course. Drawing from the experience of the present study, I will suggest two possible ways of addressing this conflict of cultures.

First, cooperation between course designers/teachers and subject lecturers should be sought. Examples of such cooperation could be the creation of a mixed-genre portfolio (mentioned above) or the use of the same texts simultaneously in subject and English courses, a change which could be beneficial in both contexts and also enhance students’ motivation. This type of subject-specific work is what has been termed ‘cooperation’ (Dudley-Evans and St John 1998: 42-43), and is the first of three means (the others are collaboration and team-teaching) of engaging with the disciplines. It involves taking the initiative to obtain information from academic staff about the content of subject courses, students’ assignments, and ‘the expectations of the department and its related discourse community about the nature of communication in the subject’ (Dudley-Evans 2001: 226).

On the one hand, this cooperation would allow course developers and EAP/ESP practitioners to gain an improved awareness of the underlying assumptions of subject
disciplines and the extent to which they differ from their own disciplinary culture and vice versa for subject lecturers. This field familiarity might help to avert difficulties that arise from discrepancies in background knowledge, expectation and understanding of texts between course designers/teachers and students. This point is illustrated by the inappropriate text selection for pre- and post-tests 1 and 2 in the present study (see 7.2). On the other hand, subject lecturers might feel encouraged to reflect on language and texts and, thus, might become more conscious that language features, discourse practices and conventions are neither self-evident nor universal (see e.g. Lea and Street 1999).

Second, students should be given more opportunities for in-depth reflection and discussion on language and texts. This could be achieved by using an inductive approach, rather than the predominantly deductive approach adopted for my course. That is, students would be encouraged to spend more time noticing, reflecting on and discussing contexts and the use of academic conventions, the motives behind their use and the differences between texts across genres and disciplines. This might result in a reduction of teacher talking time, avert a teacher-dominated lesson, a shortcoming of the present study (see 6.4), and also provide more time for peer-peer interaction. There are a number of ways in which this could be achieved:

- give students a wide range of reading experience through the use of a portfolio with academic texts of various genres and disciplines that would attempt to meet their interests and needs (see previous section);
- design tasks that focus on contrasting discourse features (e.g. hedges and boosters); compare the use of discourse features in L1 and L2; analysing the effect of presence or absence of a discourse features (e.g. metatext); or exploring the effect of different styles (i.e. nominal and verbal) (see previous section);
- allow more time for discussion in pairs or groups after task completion;
- encourage students to keep a diary which could act as a tool for on-going reflection on the content of the course and their own reading practice. This could also satisfy some students’ wish to practise writing in a reading course;
• if concordancing programmes are available, allow students to explore corpora of academic texts, i.e. to search for particular discourse features and see how they are used in authentic models.

In these ways students might gain an increased awareness of academic discourse features and different academic genres and, at the same time, come to understand that these writing conventions vary across genres and disciplines.

9.2.6 Language awareness approach

In this final section I will look at the LA approach used in this study and discuss its advantages. This approach helps students become familiar with written academic conventions and genres while, at the same time, encouraging them to notice cross-linguistic aspects of writing and reader orientation. Participants’ comments in the feedback and post-course questionnaires suggest that this facilitates the reading process (see 8.8). Moreover, when students are invited to pay attention to and make use of the features of the text themselves, they are encouraged to become autonomous readers. Another advantage of this approach is that it may encourage students to read texts more critically (see note 1 below). In other words, as students are invited to ‘reflect on experiences with texts, roles and contexts’ (Johns 1997: 129), they will no longer take texts for granted or accept text authority uncritically. Hence, they are likely to become increasingly aware of contextual factors such as purpose, reader or writer that affect the way texts are written as well as the way the information is conveyed. That is, ‘[d]eveloping hypotheses about who wrote the text, when and where, and for whom the texts are written are important if students are to process texts intelligently’ (p. 99). The use of metalanguage may also be considered an advantage of such an approach. That is, it helps students to develop metalinguistic awareness and, thus, offers them a tool to ‘name language phenomena’ (Wallace 1999: 106), on the one hand, and, to analyse, discuss and interpret other people’s writing, on the other (see 3.4.2). In fact, participants seemed quite comfortable with the use of metalinguistic terms once they were explained
and started using them to ask questions during the lessons, and even when completing and discussing tasks among themselves. This has also been observed in other studies (e.g. Frankenberg-Garcia 1991: 100). Another strength of this approach is that it can be used in courses with a limited number of hours, which other approaches such as graded reading schemes or those which focus solely on reading skills and strategies do not seem to allow so easily.

LA can also be seen as essential for skills improvement, because it encourages students to pay attention to both bottom-up and top-down strategies. In the present study, the former were used in for example Units 3 (connectors) or 5 (noun chains) and the latter were explored in Units 1 (journal articles/textbooks) and 9 (thesis statement and topic sentences), where participants were invited to use different ways of reading (e.g. skimming for gist, search reading, browsing or careful reading). This variety of tasks aimed to raise the awareness of participants that their choice of strategy would depend on their reading purpose (e.g. reading to write, to search for information, to learn from texts, or for general comprehension). It is interesting to note that there was a discrepancy between participants’ perception of their reading strategies and what they actually did in the lessons. In the interviews all participants but S9 (i.e. 10 out of 11) stated that they used different strategies depending on the text genre, topic, interest in the topic, time available, the language or even on their mood. However, during the course participants often assumed that, irrespective of the task, careful reading was required (see 7.3.1). Thus, it seems important to encourage students to ‘assess, expand upon and revise strategies for approaching literacy tasks’ as this emphasises a conscious awareness that there is not a single “reading process” but many’ (Johns 1997: 127).

Another issue that emerged was the connection participants perceived between reading and writing. For example, in Unit 1, 4 lecturers (37%) and 6 students (43%) referred to the structure of academic texts as being helpful in writing. Four students added that it would be helpful for writing their degree project report. This suggests that participants saw a connection between what they had learnt in their reading course and their writing.
L8, for example, commented that it had helped her understand how to write, especially a journal article introduction (IFBQ L8: Q6). The reason for this comment is that, when the warm-up up tasks were corrected, a transparency was used to show how the research article introduction which had just been read fitted the prototypical research article introduction (Swales and Feak 1994: 157). L8’s comment indicates her instinctive perception of how ‘the rationale behind a genre establishes constraints or allowable contributions in terms of their content, positioning and form’ (Swales 1990: 52). In fact, throughout the course lecturers saw a connection between what was taught and its usefulness in writing more often than students (Appendix 19). Obviously, this difference may result from the fact that lecturers need to write in English for their academic work while students are seldom required to do so.

Another interesting finding related to this reading/writing connection are the results of test 3, which show that participants’ summary writing in Portuguese improved (Appendix 18) although the course did not focus on summary writing. Thus, it seems that participants’ writing improved because their reading processing skills improved too (see 7.2). However, the present study does not provide any evidence as to whether consciousness-raising of discourse features and genres may extend to L2 writing or not and further research would be needed to establish this. In fact, this hypothesis should be viewed with caution because an intention to use the content of the course in writing would not necessarily lead to L2 writing improvement. For instance, my own experience as a non-native writer of English suggests that awareness raising helps the writing process, but is not enough on its own. In fact, consciousness-raising activities need to be combined with practice in writing texts in academic writing courses (e.g. Frankenberg-Garcia 1991; Hyland 2000a, 2002a; Swales and Feak 2000).
9.3 Changes to the reading course

If I were to redesign the course, I would make a number of changes. First, I would use a placement test at the outset, to ensure that participants did not attend a course beyond their proficiency level, as happened with some of the participants in this study. Second, I would have a more collaborative stance i.e. I would seek subject lecturers’ cooperation, as mentioned above in 9.2.5. Third, I would also rethink the approach to the course. If we revisit the diagram shown previously, I could start from the bottom-right corner of the diagram (see Figure 9.4), because I am now more aware of where participants come from. Therefore, I would pay attention to the interface between what I know as a teacher and what students need to know. I would favour a more cautiously metacommunicative approach avoiding the use of over-elaborated descriptions. For example, in Unit 2 (i.e. previews, reviews and action markers) I would use fewer subcategories or not emphasise these fine discriminations. I would draw students’ attention to these signposts by gradually sensitising them to these features so that they could respond to them when reading. Instead of being teacher-centred, as was the case in the present study, the course would be a predominantly learner-centred one, as I would be more sensitive to the academic needs and scholastic identities of students.

The course would be designed to favour a more inductive approach although some explicit teaching would be retained, especially in the introduction of the topics. That is, I would allow participants more time to notice, reflect on and discuss the topics, tasks and texts and then to report their conclusions. This might be achieved by allotting more time to each topic and placing greater emphasis on comparative tasks of the types suggested in 9.2.4 (see Appendix 22 for sample tasks). Additionally, I would encourage participants to keep a diary on the content of the course and their own reading practice, the content of which could be used in pair, group or plenary discussions. In short, it would be a less teacher-led course.
As far as the unit topics are concerned, I would introduce a number of changes. The first unit would have a broader focus i.e. it would consider in more depth a wider range of academic texts instead of focusing mainly on journal articles and textbooks. As a result, the topic would have to be covered over a number of lessons instead of only one. In Unit 6, the most difficult for participants, I would place a greater emphasis on the contrast between nominal and verbal styles and allow more time for in-depth discussion and writing tasks. The major change in Unit 7 would be the introduction of boosters. That is, it would aim to raise awareness by contrasting and comparing hedges and boosters because the introduction of a comparative element might facilitate comprehension of hedges. Finally, Unit 9 on thesis statement and topic sentences would be moved so as to follow Unit 1 on genre. The reason for this alteration in the sequencing is to begin by focusing on the macrostructure/textual organisation, which seems easier to grasp, and then move to the more subtle micro level features. This unit could be covered in two
lessons to allow more discussion and comparison of reading strategies at an initial stage of reading or 'attacking' an academic text, allowing learners to draw on their own reading experience.

I would also attempt to make a more judicious selection of texts, spending more time on selection and seeking specialist advice from subject lecturers. Instead of encouraging participants to use texts of their own choice in the last task of lesson and in the homework as was the case in this study, a portfolio could be provided from which texts for these two tasks could be chosen. Finally, instead of piloting the tasks and tests with just one person I would involve a group of students and then make the adjustments or changes deemed necessary.

9.4 Suggestions for further research

A desirable extension of this study would have been to follow up participants to find out whether the LA reading approach has made a permanent difference to their reading skills. This was, however, not feasible due to time constraints and participant availability. Yet, as suggested above in 4.1, it is my intention to offer an option course which will be a modified version of this course for 4th and 5th year students in my college. When designing it, I will take into consideration what I have learnt from this study. This will also allow me to research the LA reading approach further and so continue the investigation started with this PhD.

Further research on the use of an LA reading approach in different tertiary institutions, with students from different disciplines and also in different countries, would be needed to find out more about its effects on reading. There also seems to be a need for studies comparing reading strategies used by specialists (i.e. lecturers) and the socialisation of novices (i.e. students) into discourse communities. Lastly, although some studies of EAP/ESP reading courses have been carried out in institutions where subject courses are taught in the national language (e.g. Spector-Cohen, Kirschner and Wexler 2001) I
would suggest that further research is needed, since most research on EAP/ESP tends to be conducted in situations where English is the medium of instruction.

9.5 Summary

In the initial section of this concluding chapter, I suggested that participants experienced problems related to their levels of proficiency in English, and to cross-linguistic and cross-cultural variation. These cross-linguistic and cross-cultural problems resulted both from the differences between English and Portuguese and the different disciplinary cultures to which participants and myself as teacher-participant-researcher belong. This shows that I work in a rich and interesting cross-cultural environment. Therefore students have to come to an understanding that English speaking writers and Portuguese writers are different (i.e. writer versus reader oriented). However, because we come from different disciplinary cultures this causes a pedagogic problem. On the one hand, I need to deepen my understanding of the underlying assumptions of their disciplinary cultures. On the other hand, students need to understand that texts always carry values because they are human creations and they have to learn to deal with those values and conventions.

I have also proposed that a number of considerations should be kept in mind during the development of academic reading courses. First, I argued that a placement test should be used at the outset of an academic reading course, because there is a linguistic threshold level that students need to reach before they become effective L2 readers. I also looked at the importance of background knowledge of the subject and topic familiarity in course materials and suggested that the background knowledge of both students and teachers should be taken into account. I argued that this difference in background knowledge is related to the different disciplinary cultures of teachers and students and suggested that ways should be sought to minimise the difference. Two possible solutions were proposed: the cooperation between EAP/ESP teachers and subject lecturers and the
adoption of an inductive approach. The latter would allow in-depth reflection and discussion during tasks resulting in more peer-peer interaction.

I also claimed that some tertiary institutions address students' needs only partially because English courses are offered in the first years of study but no provision is made for additional courses in the final years when the need for English is more pressing. Similarly, I proposed that tertiary institutions should offer courses to their academic staff. I argued that a balanced combination of core and specific materials could be used to address the needs of heterogeneous groups of undergraduate students. Moreover, I suggested that a narrow-angled approach (i.e. use of discipline specific texts) to teaching could be used with undergraduate students, postgraduate students and academic staff.

Finally, as noted above in 3.4.2, an awareness-raising approach seems to be an effective way of attending to reading problems in L2 because it allows learners to work on the development of their skills (e.g. skimming, scanning), using bottom-up and top-down strategies while, at the same time, increasing their understanding of the rhetorical structure, discourse conventions and social contexts of written academic discourse in English.
Notes to Chapter 9

1 As I explained in 3.4.2, my understanding of ‘critical’ in the present study is the ‘relatively weak view’ of the term (Wallace 1999: 98). Therefore, being critical here is not taken in the more politicised sense used in CLA discussed above in 3.4.1 (e.g. Fairclough 1992b), critical EAP (e.g. Benesch 2001) or critical applied linguistics (e.g. Pennycook 2001). That is, in this study the term critical does not assume an engagement in social critique or deal with questions of power, inequality or ideology.

2 I use the term ‘political’ here in the sense Gee (1999: 1-2 – italics in the original) proposes: ‘language-in-use is everywhere and always “political”’, that is, ‘[w]hen we speak or write we always take a particular perspective on what the “world” is like’.
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