15 Thesis and Dissertation Writing

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Introduction

The terms "dissertation" and "thesis" are used differently in different regions of the world – in North America, the lengthy text produced as the culmination of doctoral research is generally referred to as a dissertation, while in the United Kingdom it is referred to as a thesis. This chapter follows British conventions by describing the extended piece of written work at the masters level as a dissertation and that at the doctoral level as a thesis.

Although many British undergraduate programs as well as postgraduate programs do require students to write a dissertation, the focus in this chapter is on post-graduate writing, either the masters dissertation or the doctoral thesis, and on how research conducted in this area can inform the teaching and support of such students, within the framework of English for specific purposes (ESP). Some space will be given to discussion of research into the writing practices of second language (L2) writers on masters courses, but the majority of the work discussed here is concerned with the PhD thesis. The doctoral thesis is still a relatively neglected area of research (Starfield and Ravelli 2006), although interest has grown as increasing numbers of students choose to study for a doctorate. In the United Kingdom, the number of doctorates awarded in 2009/10 was 15,610, compared with a figure of 10,660 in 2002/3 (http://www.hesa.ac.uk/). The majority of ESP research on theses and dissertations to date has appeared in either the journal *English for Specific Purposes* or the *Journal of English for Academic Purposes*, as is evident in the list of references at the end of this chapter. Reference is not made to the many manuals that have been written for thesis writers; as Paltridge (2002) has noted, published advice on thesis writing is often at odds with actual practice, and the research that is discussed here is empirically driven.

A thesis or a dissertation is for many students the longest and most challenging piece of assessed writing that they will have to do in their degree program. The sheer size of the text and the complex task of planning one's research, of synthesizing one's reading, and of sustaining a coherent and extended argument, is an immense challenge for any student writer; this challenge is magnified when writing in a language that is not one's mother tongue, and in a foreign academic culture. Furthermore, as Leki, Cumming, and Silva (2008) observe, second language post-graduate students face not only linguistic difficulties but also considerable threats to their sense of identity, as they try to adjust to unfamiliar environments in which their disciplinary expertise is neither easily expressed nor immediately recognized.

This chapter begins by asking what type of text a PhD thesis is, its purpose who it is written for and who it is written by, and how a thesis is typically structured. This is followed by a review of genre descriptions of PhD theses. Attention then turns to a process view of doctoral research, which focusses on the individual and on the context in which research students study and write. Finally, questions concerning support and language guidance for thesis and dissertation writers are discussed, and suggestions for future research are made.

Purposes and Descriptions

As Paltridge (2002: 126) states, dissertations and theses differ from research articles in their purposes, scale, audience, and the requirements they need to meet. A thesis or dissertation is a text that is produced for assessment purposes, and the immediate audience is the examiner, or examiners. The length of a masters dissertation can be around 10,000–20,000 words while a doctoral thesis in a humanities or social science subject may be about 80,000–100,000 words long. Each typically presents an original and extensive piece of research conducted by the writer. In the case of the PhD thesis, in particular, the writer has to demonstrate to the examiners that he or she has made an original contribution to knowledge, and is an authority on the subject of research.

Providing a comprehensive definition of the forms and functions of such texts is difficult because there is considerable variation across disciplines, and also across different national educational systems. In the *Reading Academic Text* corpus of doctoral theses (Thompson 1999), for example, the shortest thesis is 10,000 words long (biotechnology) and the longest (history) is over 110,000 words (the word count refers to running text within the main body of the thesis and it does not include the list of references, appendices and all front matter).

With respect to form, Paltridge (2002) has proposed four types of thesis organization: "traditional simple," and "traditional complex" (after Thompson 1999), "topic-based" and the "compilation of research articles" (after Dong 1998). In the first of these, the thesis follows the structure of a scientific research report, with separate chapters for the introduction, methods, results, and discussion; this is often referred to as the "IMRD" model. The traditional complex thesis typically

begins with an introduction and a review of the literature and then is followed by a sequence of chapters, each of which follows the IMRD pattern, before concluding with a general summary chapter. The topic-based thesis begins with an introductory chapter and then a series of chapters that are each based on a topic; such theses are common in the humanities, for example. The fourth form that Paltridge proposes is the compilation of published research articles. The compilation of articles is an increasingly common type of thesis in which most, if not all, of the sections of the thesis are articles, which have been published in international journals, and there may be an introductory and a concluding chapter appended, in which the author tries to give unity to the complete text. In some European countries, for example, Belgium and Sweden, doctoral students are expected to publish their articles in journals with high impact factors in order for these papers to qualify for a doctoral thesis.

This is not, however, a form model *per se* – the article-compilation thesis may use the complex traditional form, for example, with introductory and concluding chapters added at either end of a series of IMRD chapters, each of which has been published as a separate research article in international journals. What changes with the article-compilation thesis, however, is the audience. Thompson (1999) reported that supervisors in Agricultural Economics saw the examiners as the immediate audience for a thesis, and fellow researchers in the discipline as the audience for a research article. Supervisors in Agricultural Botany added fellow lab workers as a potential audience for a thesis (where a group of researchers were engaged on the same project). With the article-compilation thesis, then, the audience broadens to the wider research community (Dong 1998), and the rhetorical situation is considerably changed. Much research has been done on the genre of the research article (see Charles, Paltridge, this volume), and so the article-compilation thesis is not discussed further in this chapter. Table 15.1 below presents a simplified model of the typical patterns of rhetorical organization in the three types of thesis discussed in this chapter.

Swales (1990), in discussing the difference between theses and research articles, proposed that what differentiates the former from the latter is that theses employ larger quantities of metadiscourse; a thesis is a much longer text than the research

Table 15.1   Three forms of rhetorical organization for PhD theses

Traditional simple	*Traditional complex*	*Topic-based*
Introduction	Introduction	Introduction
[Literature Review]	Literature Review	Chapter: Topic 1
Methods	Chapter: IMRD	Chapter: Topic 2
Results	….	….
Discussion	Chapter: IMRD	Concluding chapter
	Conclusion	

article, and there is consequently a greater need to include sections of text that provide the reader with explanations about what is to come, and with references to other parts of the text that relate to what the author is discussing at a given point. Bunton (1999) investigated what he refers to as "higher level metatext" (metatext/metadiscourse which works at the chapter or thesis level); in 13 Hong Kong doctoral theses, he found that 57 percent of the metatext in the theses was at this higher level. He observed also that L2 writers still needed to do more to orient their readers, which suggest that the 57 percent is not a high enough proportion. Hyland (2004) analyzed metadiscourse in a corpus of 240 theses and dissertations written by Hong Kong Chinese students, and found that the most frequently used devices were hedges and transitions, followed by evidentials (references to sources of information from other texts) and engagement markers. Hedges mitigate the writer's commitment to a proposition, while transitions indicate additive, contrastive, and consequential steps within the discourse. Between the two types of texts, Hyland found that the doctoral theses used 35 percent more metadiscourse than the dissertations, and also that they used more interactional metadiscourse (hedges, boosters, attitude markers, *inter alia*) than the masters dissertations.

It should be noted that the category of the "topic-based" form of thesis tends to be a catch-all for a wide range of frameworks that do not fit into the traditional IMRD patterns, and this is either evidence that there is less conventionalization of form in research paradigms outside that of traditional experimental studies, or that further research needs to be done to categorize other patterns.

While it is understandable that the IMRD structure has tended to dominate the attention of ESP researchers, given that it is a widely used form, in recent years several researchers have argued that more attention needs to be given to alternative forms of writing and specifically to research that takes a qualitative (rather than quantitative) approach. Belcher and Hirvela (2005), for example, studied six L2 doctoral students who were writing a qualitative research dissertation, with the aim of understanding what motivated these students to choose a qualitative topic and also to find out how they viewed the linguistic demands. Three of the students had intrinsic motivation, and three had extrinsic motivation, but all six succeeded. One of the keys to success for these writers, Belcher and Hirvela proposed, was writing support from a sympathetic and experienced reader. Casanave (2010) goes further to propose that students should be encouraged to take risks when writing qualitative research, as, she argues, unconventional writing can lead to creative thinking.

Starfield and Ravelli (2006) investigated visual and verbal representations of what they term the "writerly self" in History and Sociology PhD theses. They propose that in the postmodern age there is a new form of topic-based thesis emerging in which the writer is constructed as a reflexive self that is not able to write with the classic detachment of positivism, such as one might find in traditional "scientific" writing. Writers, they argue, are playing with forms and looking for new ways to make meaning. One of the key questions for the postmodern writer is how to represent and position himself or herself textually.

Genre Descriptions

The most productive research approach to thesis and dissertation writing to date has been in the area of genre analysis. In this section, I briefly review the genre descriptions that have been made of some components of theses and dissertations: introductions, literature reviews, discussion sections, and conclusions.

Introductions

The classic framework for the genre analysis of introductions in research articles is Swales' (1990) Create a research space (CARS) model, which consists of three moves: (1) "Establishing a territory," (2) "Establishing a niche," and (3) "Occupying the niche," each of which contains a number of steps. Bunton (2002: 74) has developed a modified CARS model for PhD theses, which uses the same moves, but he introduces different optional steps within these moves. These include "defining terms" (within Move 1) and "thesis structure" (cf, the observation made above that dissertations and theses are characterized by the frequent of higher level metadiscourse which informs readers of the "bigger picture," as it were), "research questions/hypotheses," "method," and "theoretical position" (within Move 3).

Samraj (2008) looked at variation in the uses of "I" and of references to literature in the introductions of masters dissertations in three different disciplines (biology, philosophy, and linguistics) and found that the Philosophy students in her sample tended to construct a stronger authorial identity but they also established weaker intertextual links (there was less citation). Samraj also observed that not all the dissertation introductions in her sample conformed to Swales' CARS model.

Literature reviews

Kwan (2006) applied Bunton's framework for thesis introductions to an analysis of literature review chapters in 20 Hong Kong dissertations. She found that the two dominant moves in the literature review section were Moves 1 and 2, with Move 3 occurring less than a quarter of the times that Move 1 did.

Thompson (2009) argued that the three moves in Kwan's move model for literature reviews function to establish a strong case for the writer's own work on which he or she is to be evaluated. Thompson then took a corpus-informed approach to the analysis of evaluation in literature reviews in theses in four disciplines. He selected the words "problem," "data," and "evidence" (selected because they are key nouns – "key" as determined by the "KeyWords" tool in WordSmith Tools (Scott 2010) – in the literature review chapters), and showed that they play an important role in maintaining the writer's voice through the literature review, in patterns such as the following:

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DET + ADJ [optional] + PROBLEM + [optional postmodification] +
BE + that/to (Example: "The fundamental problem is that ... ")
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there + BE + ADV/ADJ [optional] + evidence + that/to (Example:
"There is little evidence to ... ")
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The gaps in findings, theories, explanations or descriptions of previous research-ers are thus identified as constituting problems that are in need of resolution, or evaluated in terms of how much evidence they provide to support a line of argument.

Both Kwan and Thompson conducted their research on native speaker authored theses. Akindele (2008), by contrast, looked at literature reviews written by Bot-swanan doctoral students and also interviewed the writers. He identified the ability to write critically about the literature as a major challenge facing these L2 writers.

Although citations are not confined to the literature review sections of a thesis, it is worth commenting on research that has been conducted on citation practices in thesis and dissertation writing here. Thompson (2006) categorized all instances of citation in a corpus of agricultural botany theses written by native speakers and investigated how writers position themselves and what they place focus on. In the introduction, literature review, and discussion sections, the tendency was to use non-integral citation types with a focus on information rather than on people (non-integral citations are citations that are placed outside the sentence, usually inside brackets). However, some writers did integrate the names of researchers into the syntax of the sentence, particularly where comparisons of a number of studies were made.

Petrić (2007) adapted Thompson's coding framework for her analysis of citation practices in masters dissertations written by L2 writers of English at a Central European university. She found that citation at this level was used primarily for knowledge display, but that higher-grade students used citations for a wider range of functions, in order to support the writer's line of thought.

Charles (2006) examined what she terms "research reports" (that is, reporting clauses used by writers to make reference to others' work) in thesis citations in two disciplines, and found much higher levels of integral citation use in the theses than were reported by Hyland (2002) in his analysis of research articles. Charles speculated that this was because the integral citation form is part of a more extended discussion of a reference, which is possible in a thesis where there is more room to elaborate than in a journal article.

Discussion sections

Dudley-Evans (1994) presented a nine-move model for discussion sections of masters dissertations and research articles, and Bitchener (2010b: 4) provides the following revised three-move model that is directed at writers of empirically based doctoral theses:

1. *Provide background information*
    a. restatement of aims, research questions, hypotheses
    b. restatement of key published research
    c. restatement of research/methodological approach

2. *Present a statement of result (SOR)*
    a.   restatement of a key result
    b.   expanded statement about a key result
3. *Evaluate/comment on results or findings in a. restatement of aims, research questions, hypotheses*
    a.   explanation of result – suggest reasons for result
    b.   (un)expected result – comment on whether it was an expected or unexpected result
    c.   reference to previous research – compare result with previously published research
    d.   exemplification – provide examples of result
    e.   deduction or claim – make a more general claim arising from the result, e.g. drawing a conclusion or stating a hypothesis
    f.   support from previous research – quote previous research to support the claim being made
    g.   recommendation – make suggestion for future research
    h.   justification for further research – explain why further research is recommended

In this framework, the writer is likely to repeat a cycle of 2 followed by 3, so that the pattern may be: 1 – 2 – 3 – 2 – 3 . . . (where the three dots indicate that the sequence 2 – 3 can be repeated several times).

Bitchener and Basturkmen (2006) conducted four in-depth interviews with L2 dissertation writers and their supervisors, and asked them how they perceived the task of writing the discussion of results section (DRS) of the dissertation. Students tended to see their language problems at the sentence level while the supervisors saw it in terms of creating clear meaning at the paragraph level, and in terms of understanding the rhetorical and organizational requirements of the genre. Cooley and Lewkowicz (1995, 1997) also reported that supervisors at the University of Hong Kong claimed that difficulties with surface forms and structures are less problematic than difficulties affecting the development of coherent ideas and arguments, and they also observed that difficulties with appropriate lexical choice tended to obscure meaning.

Conclusions

Bunton (2005) proposes that the generic structure of a conclusions chapter is not the same as that of a discussion chapter. The following is his model for a conclusions chapter, with a small amendment to Move 4 drawn from Thompson (2005):

Move 1: restatement of aims and research questions
Move 2: consolidation of present research (findings, limitations)
Move 3: practical and theoretical implications
Move 4: recommendations for further research
Move 5: concluding restatement.

Writers and Supervisors

We have so far talked about the thesis or dissertation primarily as a product. It is important to recognize, however, that the models that genre analysis have proposed are simply attempts at describing what is common to the texts that the analysts have examined and that these models need to be tested against examples of theses written in the local context. Doctoral students need to look at theses written in their subject area and see how they are structured and what the typical moves are in each section, rather than uncritically adopt the models suggested by genre analysts. It cannot be said that there is one single way to write a thesis, as Paltridge (2012) observes, but it is important for students to find out what conventions exist within their own discipline and also to find out how binding those conventions are. Students can learn about this by examining previous theses and also by asking their supervisors, advisors, and other researchers at their institution.

The final text emerges from a complex of processes, over a long period of time. The student writer may work individually or as a member of a group (within a funded research project for example), and much of the time is guided by one or more supervisors. Starfield (2010) observes that social sciences and humanities students do not work in teams, unlike science students, and international students in these contexts have few opportunities for informal learning about the research culture of their field. In a science subject, Shaw (1991) reported that supervisors tend to have a strong influence on choice of research topic, on research design, and on the writing of the literature review. In an arts or social science discipline, by contrast, the student may be expected to exercise greater independence (Turner 2003).

Recent research has illustrated how doctoral study is a socially mediated activity: Kwan (2009), for example, describes the interactions between students, supervisors and other advisors in the development of literature reviews by thesis writers at a Hong Kong university. Casanave and Li (2008) is a collection of fascinating papers that explore how graduate students learn the unwritten rules of participation in their research communities, how they learn to negotiate their relationships with supervisors and peers, and how they cope with the challenges to their sense of identity. Casanave (2008) draws on Lave and Wenger's (1991) concept of *community of practice* to describe graduate academic literacy work as "participatory practice" and she goes on to argue that the major challenge for graduate students is not simply one of achieving proficiency in English, but one of "learning what it means to participate fully, not superficially, in an academic community of practice" (Casanave 2008: 27).

The thesis can be seen, therefore, as the culmination of a multitude of experiences through which students are socialized into the values and the ways of doing that are conventional to a given research community (although it should be admitted that the concept of a research community itself is problematic, particularly in multidisciplinary research contexts). Included within these values are notions of

what the goals of research writing are and of reader expectations, and it has been found that less successful students differ from their more successful counterparts in their understandings of these values, and that their perceptions diverge markedly from those of their supervisors (Belcher 1994). Conversely, more successful supervisors display and make explicit the values and practices that are held by their community, and provide students with the language, skills, and opportunities that they need in order to become fuller participants (Duff 2010: 176).

San Miguel and Nelson (2007) conducted research into the expectations of a supervisor by looking, firstly, at two assignments written by L2 professional doctorate students, and, secondly, at the responses of the supervisor to those assignments. In the assignments, the students were required to use practice-based knowledge in order to solve real-world problems, and the task required them to frame the research. The finding was that the higher rated text of the two placed theoretical knowledge before action knowledge and was judged to be better framed.

Swales (2004: 122–38) presents a valuable overview of the range of case studies that have been conducted on individual doctoral students, and supervisors, in the years 1984–1997. He cites James (1984: 112) who writes, "students need help with what they find most difficult. What they find most difficult can only be discovered by observing them on the [writing] job." The difficulties can be linguistic (under- or over-complexity of sentences, vocabulary difficulties, poor referencing, underuse or overuse of metadiscourse, and so on) or rhetorical (writing for the wrong audience, assuming too much knowledge on the part of the reader, and so on), and subject supervisors are not always able to make explicit what the linguistic and rhetorical problems are, nor how students can overcome them.

Difficulties can also arise from epistemological and cultural differences. Cadman (1997) makes the point that L2 texts can be culturally inappropriate, as well as structurally inappropriate. She writes of the difficulty for L2 writers of constructing a suitable personal voice in the text, through evaluation and stance, and describes working with a Thai PhD student to cultivate a more authoritative voice in the writing, over a period of a year. During this period, the writer gradually moves from a concern with small details to an attention to the "bigger picture." Cadman also emphasizes the value, within this process, of reflexive writing in allowing students the opportunity to develop a more confident identity.

Phan Le Ha (2009) presents a fascinating account of the interaction between an Indonesian Master's student and her supervisor (the researcher herself, for whom Vietnamese is a first language) at an Australian university, in which both her own experiences of nurturing a writer's voice in English and those of her student are narrated. The account gives a powerful insight into the feelings of alienation L2 writers can experience and the inferiority complexes that are inculcated in them through rejection of their prior experiences and voices. Phan Le Ha and her student, Arianto, challenge the norms of the dominant discourse, and forge their own writing spaces in English. While not all L2 dissertation and thesis writers may choose the same routes as Phan Le Ha and Arianto, the struggles of these to achieve their own identities as academics in English are highly revelatory. This

article is also representative of an approach to English for academic purposes known as "Critical EAP" (Benesch 2001; see also Starfield, this volume), which challenges the predominant norms and questions the concept of initiating students into disciplinary communities, with the concomitant assumption that the students must adapt to the values of the power holders (or gatekeepers).

Dong (1998) surveyed 169 post-graduate L2 writers and their thesis and dissertation supervisors in two US universities, and found that the L2 writers were at a disadvantage not only because of linguistic challenges but also because they lacked an adequate support network for their writing, compared to their NS counterparts. Although both groups of students had equal access to support resources, the L2 student writers did not make use of them in the same way. In spite of the fact that science students tend to work in teams, the L2 writers expressed strong feelings of isolation, which derived to varying degrees from the difficulties they found in communicating with those around them, the sociocultural divides and in some cases a sense that their perspectives were not valued.

A linguistic marker of identity expression in a thesis is the first person pronoun singular. John (2009) investigated writer identity in a corpus of applied linguistics MA dissertations, written by English as L2 writers, and showed how dissertation writers use the first person pronoun singular to establish different aspects of their identity and roles as thesis writers: as a person, as "Academic: Scholar," and as "Academic: Organizer." John examined the changes in use of first person pronouns across thesis drafts, and charted the move from a more personal starting point of their thesis to the projection of a more scholarly persona as academic in the final version of the dissertation.

Teaching

Specialist EAP writing support may be provided to dissertation/thesis writers before they begin the research process, during the process or when they are writing chapters of the thesis (in what many people term the "writing up" phase – though it should be noted that many thesis writers engage in writing throughout the research process). Where teaching is provided well in advance of the writing of thesis chapters, it is likely that the focus will fall on interim genres, such as "assigned writing for supervision sessions," the "extended research proposal" (the names used in different national and institutional contexts vary), and on writing articles for publication, and the course will prepare students for writing those genres. Paltridge (1997), for example, describes a short course delivered to doctoral students on writing research proposals, which consisted of three sessions. The emphasis here was on the texts that students needed to produce on their way towards writing the thesis.

Casanave and Hubbard (1992) conducted a survey of graduate faculty about what writing they required of first-year doctoral students, and found the following range of types of writing assigned: critical summaries, problem-solving, brief

research papers, linguistic research papers, non-critical summaries, lab reports, literature reviews, and case studies. Given this plethora of writing types, Casanave and Hubbard make a case for discipline-specific writing instruction. They also make the point that writing increases in importance across the years of doctoral study, and that therefore writing support needs to be offered across the whole period of registration rather than being focussed on in the first year.

Allison et al. (1998) conducted interviews with supervisors and a survey of graduate students. They raise questions about how teachers should structure doctoral writing skills sessions. One question they pose is as to whether the content should be organized by dealing with the component parts of the thesis in sequential order. Such an approach would look at how to write an introduction, then the literature review, followed by sessions on the methods, results and discussion sections. Teaching guides such as Swales and Feak (2004), Weissberg and Buker (1990) and Bitchener (2010a) work sequentially through the stages of abstract, introduction, literature review, and so on, and focus on the linguistic features of each of these sections. Paltridge and Starfield (2007), in their guide for supervisors, acknowledge that abstracts are usually written last, by placing their chapter on abstracts after the "conclusions" chapter.

John Swales and Christine Feak have published three short textbooks looking at different sections of the IMRD thesis: the abstract (Swales and Feak 2009), the introduction (Feak and Swales 2011), and the literature review (Feak and Swales 2009). These are based on a genre approach to the sections and make use of samples of student writing for illustration. Both the books on the abstract and the introduction include chapters that focus on thesis writing, and in the chapter on abstract writing, the authors make it clear that abstracts are important in the North American context where examiners are asked to comment explicitly on the acceptability of the abstract. It is worth observing too that institutional and national requirements for the length of an abstract can vary considerably: Russian thesis abstracts (Swales and Feak 2009) are on average 5,600 words in length, while the University of Birmingham, UK, states that abstracts should be 200 words long.

The field of study, the methodology used and theoretical persuasion are "prime determinants of models of organization" (Johns and Swales 2002). Consequently, in a heterogeneous class of graduate students, it cannot be taken for granted that all students will write a thesis that follows the IMRD model. Even within a homogeneous group (students from the same discipline), there is a possibility of variation because of differences in methodological approaches used.

A further difficulty may be that, within a homogeneous group, students may be at different stages of their research, and teaching therefore needs to accommodate this range of development. Richards (1988) reports on an interactive needs analysis exercise, conducted as part of an intensive ESP thesis-writing program, in which students were asked to analyze exemplar texts (methods chapters, for example) and then work on a piece of writing that was relevant to them at that point in their research. Kwan (2008) made the point that writing a literature

review, for example, is an iterative process, which takes place at various stages during doctoral studies, and it is possible therefore to approach the writing of a literature review at different levels of complexity, to suit the needs of students at varying levels of development.

Students are often not sure what the conventions are in their discipline, and a useful activity, where resources are available, is to ask the students to find examples of the types of dissertation that they are going to write. Furthermore, in many EAP contexts the writing support advisor has not written a thesis in the same subject, if he or she has written a thesis at all. In such contexts it is important that the adviser has access to examples for information about what is expected of theses in the disciplines that the students aspire to belong to, either by locating published texts on the internet or by asking supervisors to guide them to relevant examples.

Starfield (2003) describes the use of the Bunton/Swales and Feak thesis introduction three-move model with humanities and social sciences students in doctoral writing workshops. In these workshops, she asked the students to apply the model to a sample introduction taken from a history thesis. In applying the generic model to an authentic instance of a thesis introduction (the model did not fit neatly to the example, it should be noted), students became aware of a vocabulary and method for defining moves and also developed an understanding of the range of options available to them.

As indicated above, it is also important for students to find out about the expectations and values of their disciplinary community, and through classroom activities they can be encouraged to act as researchers into the practices of their communities (Johns 1997). The teaching of advanced academic literacy requires sensitivity towards the contexts in which writers develop their texts and this sensitivity can be nurtured through structured literacy research activities (Thompson 2005). Differences in the expectations that supervisors and students have about each other's roles and responsibilities can lead to problems in situations where the supervisors and students come from different cultural and educational backgrounds, but there can also be problems where the two parties share cultural backgrounds but still have different expectations (see Paltridge and Starfield 2007; Paltridge and Woodrow 2012). Doctoral writing workshops can address the nature of expectations through discussion between student participants of what they expect their supervisors to do and what they believe is the student's responsibility. Paltridge (2003: 87) provides a list of questions that can form the basis for discussion, including questions such as:

- Is it the student's or the supervisor's responsibility to select a promising research topic?
- Who assumes responsibility for the methodology and the content of the dissertation, the supervisor or the student?
- Should the supervisor assist in the actual writing of the dissertation if the student has difficulties or does the student have full responsibility for presentation of the dissertation, including grammar and spelling?

Paltridge reports that students generally have similar views to their supervisors on procedural issues such as arranging meetings, but diverge on the three questions shown above. After discussing the questions in a workshop, students can be asked to carry on the discussion with their supervisors, so that the expectations are made explicit.

Writing has tended to be perceived to be as an "autonomous" (Street 1984) set of skills that have to be learned, but Aitchison and Lee (2006) argue that supervisors and students need to recognize the role that writing plays in knowledge creation, and therefore its centrality in the research process. This point is also made forcefully by Murray (2011) who proposes that doctoral students need to write regularly throughout their period of study; she suggests a range of activities for developing greater ease in writing and a set of writing strategies. Aitchison and Lee (2006) stress the importance of viewing writing as a social activity and they discuss the value of setting up writing groups for doctoral students: group activities can lead to an enhanced sense of identity, readership and community.

Areas for Further Research

This chapter has looked at how theses and dissertations are organized and at what research has uncovered about the linguistic features of different parts of such texts. We have also considered the implications of this research for writing support and instruction in EAP contexts. It is clear that there is considerable variation between and within disciplines as regards what is conventional and what is appropriate, and that there is a need for much more research into such differences.

A major development in this field is the move towards electronic theses. In several countries, universities are requiring students to submit their thesis in both paper and electronic form, usually in PDF format. This makes access to authentic representative texts much easier than in the past. Researchers can now obtain electronic copies of theses for linguistic analysis from university libraries, and either work with the PDF version or convert the PDF files to a text format, for use with corpus analysis tools such as concordancers (e.g. WordSmith Tools or AntConc). It will still be necessary to consult subject specialist informants in order to gather information about the values of the discipline, and about the relationship of sub-disciplines to each other and to the parent discipline, but the widening of access to large quantities of empirical evidence will greatly assist research (and teaching, too, as Starfield 2003 demonstrates) in this area.

As shown above, there has been some investigation of the various types of writing that doctoral students are required to produce at different stages of their research. At the end of the first year, for example, students may need to produce an extended research proposal, or some draft chapters, for review by a university panel. Paltridge (1997) describes a course that he developed which focussed on the thesis proposal, and in which, *inter alia*, students looked at exemplar proposals written by previous students in order to determine the structure of such texts. Because such interim texts are not in the public domain, they are typically only

available to researchers and instructors locally, but there is still a need for more research on such texts to be conducted within institutions and then reported at an international level.

There is also scope for much more interview and student tracking research into the experiences of L2 thesis writers. Bitchener and Basturkmen (2006: 14), reflecting on their interviews with students and supervisors, write:

> From the interview data, we also became aware of the need for future research to go beyond the mere identification of writing difficulties as they appear in the written text and identify the specific causes of these difficulties.

Engagement in discussions with the student writers and close observations of their interactions with their supervisors, their peers, and with other academics in their communities of practice promises therefore to illuminate our understanding not only of *what* student writers find difficulties with, but also of *why* these things are difficult.

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