Teaching the literature review to international graduate students

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Teaching the Literature Review to International Graduate Student

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From a rhetorical perspective, doctoral education in the U.S. can be see cumulative, if untidy, acquiring of expertise in the academic genre s orchestrates a graduate student's chosen field. We can see this as a kind of g escalation, marked by steps that impose increasing levels of commun demand on the student. Thus, in terms of academic speaking, the student prog from class participation to presentation, and from there to internal coll regional conferences, and finally, to speaking at national and international c ences. The student's instructional trajectory might well take the steps c working as a tutor or as an assistant in the lab, then as a teaching assistant r discussion sections attached to a lecture course, and on to having sole respons for a small class. A typical writing sequence might show a cumulative dem tion of expertise in course assignments, term papers, independent research p research proposals, publications, and finally a dissertation.

Although we believe that this account has a certain kind of clarity that especially appeal to those interested in genre-based approaches to advanced l and oracy development, we also acknowledge that it is oversimplified and id in a number of ways. First, it ignores the fact that much of contemporary d writing (like faculty writing) is avowedly or prospectively multipurpose. A p lar piece might serve to satisfy a program requirement (such as a preli examination), set the groundwork for a publication, be a follow-up to a presen or be projected to form part of a dissertation. This last is particularly commo science and engineering fields with their preference for an "anthology" disse the central chapters of which consist of a small number of published or ac

papers. Second, the simple account leaves out all those semihidden genres that are, in fact, strong determinants of a student's degree of success (Swales, 1996); these are genres like *fellowship applications, curricula vitae, responses to reviewers' comments, meetings with advisors, discussions with visitors,* and the like. Third, recent investigators have shown that the process of putting together a plausible Ph.D. student persona is much more complicated than might be supposed from the foregoing. Belcher (1994), Casanave (1995) and especially Prior (1998) have provided evidence of the complex two-way interactions of students and faculty, of the importance of local defining moments in relationships, and of the "up and down" character of progress toward goals. The progress of the doctoral pilgrim is undoubtedly beset by thickets, Sloughs of Despond, and stony ground. Finally, the very nature of those genre goals are often themselves discovered and coconstructed over time. As long ago as 1984, Miller crucially observed that when we learn a genre set, we can also learn to do things that we did not know we could do, such as asking for a second opinion, questioning an editorial decision, or inserting an epigraph. Boxer and Pickering (1995) showed, for example, that international students do not always know that when their colleagues complain about a particular department, instructor, or assignment, this is, as much as anything else, an opening for commiseration, sharing of woes, and hence rapport building.

Even with all these concerns and caveats, viewing doctoral education as a generic ladder makes a fair amount of pragmatic sense. Indeed, at the English Language Institute at Michigan, we have developed a "longitudinal" EAP syllabus designed to help international students with these jumps in communicative demand. The first author has been responsible during the last decade for the two most advanced graduate student writing courses in a four-level sequence: Research Paper Writing (ELI 520, Fall semester) and Dissertation and Prospectus Writing (ELI 600, Winter semester). The participants in these courses are all volunteers (although sometimes "leaned on" by their departmental advisors) and can come from any of the university's 19 colleges. Although there may be an occasional student from, say, music or theater, most are working in the broadly quantitative areas of science, social science, and engineering. They can also come from any country (the university's lone student from Albania attended in 1997), but most come from East Asia, particularly from China, Taiwan, Korea, Japan, and Thailand. There is usually a faculty member or postdoctoral researcher in the class. On average, about 20 attend ELI 520 and 15 take ELI 600. They enjoy, toward the end of their student careers, the social atmosphere of an across-the-campus class and its weird revelations of how things can be so different elsewhere. For example, they come to realize that some departments and programs are much less or much more supportive of their students than their own. They relish academic stories and scandals, and academic humor and parody, as in:

- Recommendation letter: "I am pleased to say that this candidate is a former colleague of mine."

- Joke: "How many doctoral students does it take to change a lightb
  "Only one, but it takes five years."

- Dissertation acknowledgments: "Finally, I would like to thank the
  my committee without whose help and immense attention to de
  dissertation would have been completed years ago."

The classes meet once a week for two hours and are supported by inc
consultations, and by help provided by the ELI's Writing Lab, staffed in 199
by the second author.

The ELI 600 material includes attention to those semihidden—or occl
genres mentioned earlier, such as *curricula vitae, job application letters,*
correspondence, and *fellowship applications*. Other topics include titles, ac
edgments and conclusions. One special focus involves metadiscourse (e.g., Ma
1993) because of its strong relevance to the successful composition of lo
such as dissertations. (For example, nearly all dissertation opening chapters
a substantial outline of the whole work.) In these classes, the amount of hor
and for-class writing is deliberately kept light because the students are al
engaged on their own research projects and the audience for their writin
directly the ELI instructor but departmental advisors and instructors, sc
panels for conferences, or journal editors and reviewers. In ELI 600, th
exceptions to this stance occur with the *conference abstract*, the *conferenc*
(a recent addition), and the *literature review*. This last is the topic of this c

THE LITERATURE REVIEW REVIEWED

The Literature Review (LR) is a part-genre or sub-genre of wide significanc
academic world and in graduate education. It may occupy an eponym
separate section of a thesis or dissertation, or it may be incorporated within a
introduction, a prospectus outline, or a proposal. University faculty often cc
that their students do not write impressive LRs, not so much because they h
done the requisite readings, but because of the poor organization of the r
Typical complaints include the following: LRs are "not sufficiently theme-
"not structured according to the issues," "insufficiently informed by the r
hypotheses," "merely a list," "boringly chronological," or "just describes eac
of research one by one without adequate linkage." Even at a prestigious r
university, doctoral student anxiety on this topic can run high. In Decembe
the first author was asked to offer a workshop on this topic for both native a
native speakers. Instead of the 30 to 40 expected, more than 200 showed up;
professional expectations in this regard can be threatening, perhaps especi
those working in interdisciplinary areas.

However, for a number of reasons, the LR is one of the more difficu
genres for an EAP writing instructor to teach. First, as we shall attempt to sh

LR is not really susceptible to the kinds of move analysis that have proved popular for introductions (e.g., Swales, 1990), abstracts (e.g., Melander, Swales, & Fredrickson, 1997), results (e.g., Brett, 1994; Thompson, 1993), discussions (e.g., Hopkins & Dudley-Evans, 1988; Peng, 1987), and many kinds of professional documents. The second important reason is that our current information on the LR is bifurcated toward the extremes of specificity and generality with little of substance in the middle. On the one side, we know a lot about tense (Malcolm, 1987), citation (Bloch & Chi, 1995), reporting verbs (Hyland, 2000; Thompson & Ye, 1991), and adjuncts of reporting (Tadros, 1985), all on the lexico-syntactic level. Some of this knowledge is reflected in writing guides, which contain instructions on (for example) the placement and form citations should take (Biddle & Holland, 1987; Day, 1998; Kronick, 1985; Michaelson, 1986). On the other, there is a subtantial amount of advice with regard to macro features such as aims and purposes, library searches, and taking notes (Biddle & Holland, 1987; Bond & Magistrale, 1987; Michaelson, 1986).

In contrast, we find very little information about how writers get from the macro level to the micro level. Manuals do exist that deal with midlevel functions such as how to use citations (Becker, 1986), what and how much to cite (Woodford, 1976), paraphrasing and synthesis (Biddle & Holland, 1987; Hamp-Lyons & Courter, 1984), or even possible ways of organizing the LR (Rudestam & Newton, 1992; Weissberg & Buker, 1990). However, advice given on organizing an LR is often so brief and general as to be unlikely to enlighten the potential writer who is trying to find out what to include and in what order. For example, Day's (1998) ambitiously titled chapter "How to write the introduction" is a mere three pages; The *APA Publication Manual* (1994) advises the writer to both "assume that the reader has knowledge in the field for which you are writing and does not require a complete digest" (p. 11) and "develop the problem with enough breadth and clarity to make it generally understood by as wide a professional audience as possible" (p. 12). As students might say, "Go figure"! Although some (especially Rudestam & Newton, 1992; Weissberg & Buker, 1990) suggest possible ways of organizing LRs, they only mention a few candidate structures. What this chapter hopes to provide by illustration, then, is how to negotiate a solid middle between the macro and micro levels in a relatively small-scale case study context.

TEACHING THE LITERATURE REVIEW

True to the spirit of this volume, we now offer some actual genre-based teaching materials for consideration and possible adaptation. What immediately follow are the handouts given to the ELI 600 class about a third of the way through the 14-week course. Although they are somewhat lengthy, we include them here because (a) the material is currently "freeware" and (b) some grasp of it is essential for the subsequent analysis and commentary.

ELI 600. LITERATURE REVIEW

Fulan A. Fulani is writing his prospectus. The proposed topic for his dissertat

A Formative Evaluation
of
Current Problems in Engineering Education

He is now at work on the Literature Review. He has divided this into six secti has reached Section Five, which deals with the teaching of communication Engineers.

He has managed to find nine items for this section. This was hard work as th were scattered across a wide range of journals. He has made notes on the articles assembled photocopies of the abstracts on separate pieces of paper.

He is now looking at the abstracts and trying to puzzle out which studies which, and for what kind of reason. As an ex-student of ELI writing classes, h that he cannot just describe or summarize each one separately.

He knows that he has to: a) *impose some order* on the material in demonstrate that there is an *organizing mind* at work, and b) exhibit some app level of *evaluation*.

He recollects his advisor's comment, but he is not quite sure if he fully und it: "One final thing, Fulani. Either you control the previous literature, or it will you."

But what order and organization? This is his first problem.

What can you suggest? Draw a tree-diagram of the nine abstracts that follo number or first author's name) outlining your proposed scheme. Come wi diagram on an overhead or a handout for the next class. Be prepared to exp thinking processes behind your choices.

1. Van Hoek, J. (1990). Information in Manufacturing Systems and the Need Graduating Engineer. *European Journal of Professional Education*, 17: 67–7

Few opportunities for developing communication skills exist in the c curricula of most B.S. Engineering courses in Western Europe. It is thus impor those few available are spent on fundamental aspects of the most relevant are course developed at the University of Amsterdam is built around case studies c manufacturing problems. Students are required to form engineer-manager gr task forces to solve problems as they arise. In this way they become socialized engineering community. Evidence is presented from student evaluations a success of this approach.

2. Scott, J. (1989). The Logical Structure of Technical Reports: Software Sup *Journal of Technical Documentation*, 11: 273–282.

The "expression" problem in writing engineering technical reports is seco the "comprehension" problem—i.e., the ability to perceive relevance, organize r into sections, and then organize sections into a logical order. This paper be considering the question of efficiency and the contributions that "logical sec

logical order" can make to the effectiveness of reports. It then presents an algorithmic IBM-compatible software program which encourages the kind of analysis and organisation underlying effective report writing.

3. McWrath, A. (1984). Communication Skills for Engineering Undergraduates: An Engineer's Response. *The Professional Engineer*, 47: 21–23.

The growing employment of "specialists" in communication skills has recently become problematic in many Engineering Schools. As a professor of Engineering, I am committed to helping my undergraduates improve their writing and speaking abilities. I argue that this is best achieved in the context of real Engineering courses taught by real engineers, not by "outsiders" to the profession who often fail to understand the nature and purpose of engineering communications.

4. Leon, A. & Deng, W. (1993). Developing Communication Skills in Civil Engineering Students. *The Civil Engineer*, 73: 507–519.

Civil Engineers are responsible for devising economic practical solutions to satisfy the needs of the community for roads, bridges, water supplies and other major works. Throughout their education and training it is unlikely that they will receive much formal training in effective communication. To remedy this, a new course of communication studies was introduced two years ago at Manchester University. The essential feature is to have all the communication topics set in the context of civil engineering practice. Thus, a large civil engineering contract is simulated and all aspects of communication skills are related to the simulation. Preliminary results suggest that the students have appreciated the linking of communication studies with civil engineering work.

5. Ahmed, S. & Williams, B. (1991). Content in Engineering Courses for Engineering Students. *Studies in Higher Education*, 33: 74–92.

Communication courses for Engineering undergraduates vary widely in content, from mass media on the one hand to the social responsibility of the engineer on the other. As a rule, students find little interest in such courses because of their distance from their immediate concerns (Olsen, 1987). In contrast, our research shows good responses—as measured by interview and questionnaire—for courses that focus on the day-to-day communication problems of engineers, both with their colleagues and the general public.

6. Lo, C. and Li, C-S. (1993). Empowering Female Students in Engineering Education. *Cross Currents*, 24: 96–109.

Many reports speak of a "chilly climate" toward women engineering students (EEGR Survey [1991] for an overview). Our experimental program provides opportunities for women students to develop their communication skills in sheltered, women-only environments and then apply their new-found confidence in mainstream situations. Follow-up studies report improved grades, more effective participation in class, and increased job offers (p = 0.5; QZ = 4.78; ff = X4+ on the Fittori scoring rule).

7. Pradip, S. & Rahim, R. (1992). Moving from National to International Prom
Computer Engineering in Bombay. *UNESCO Journal of Technical Education*
14.

There has been much talk of the "Bombay Miracle" (e.g., *Time* 8/3/92), bu
less of the communication failures of the computer engineers and scientists in t
We have developed training courses for engineering graduates stressing cross-
differences in negotiation, writing styles, patent laws and contractual obligations
Indian, Japanese and North American leaders in technological change. Altho
empirical evidence is yet available, there are signs that the case approach to succ
failure in Indian computer engineering initiatives for export is having beneficial

8. Sullivan, P. (1991). Problems in Communication Skills Courses. *Journal of*
cal Education, 24: 23–40.

A survey of undergraduate technical communication programs in the US (
suggests that the acceptability of the program to both students and faculty d
depend on the quality of the program (as measured by staff profiles, curriculum a
and level of integration with engineering courses). Rather, the prime determi
engineering faculty support (or otherwise) for the program. The study suggests
way forward lies more in canvassing for faculty support than in internal improv

9. Fredrickson, K. (1993). Provision for the Non-native Speaker in Graduate En
ing Programs. *English for Specific Purposes*, 12: 222–233.

The increasing numbers of NNS in US graduate Engineering program
caused various kinds of strain, including faculty burn-out (Perillo 1986),
between NS and NNS populations for financial support (Luebs 1990) and diss
tion with NNS after graduation when their English skills are shown to be le
promised (Swales 1990). An experimental program of "English internships" w
research associates and scientists has proved highly effective in helping NNS s
develop their technical writing skills in English. The conclusions suggest th
programs should be expanded to other campuses.[1]

In 1998 we recorded the class presentations and explanations of the sc
(or architectures) the students had devised and the subsequent discussions c
approaches. There were eventually 13 offerings in all, 11 by students and t
visiting scholars attending the class (one a German in philosophy and the
Brazilian in applied linguistics). Three of the overheads (or handouts) are
duced: those of a Puerto Rican student from Public Health (B2), a Korean s
from Social Psychology (S2), and a Thai student from S. E. Asian Studies

The public health student offered a general–specific model. The psych
student, at the time writing his dissertation and with a tenure-track job offe
a major research university already in his pocket, said that he "tried to creat
own story" and wanted to show this at the outset by contrasting a "bad exampl

[1] In case readers are curious, the nine abstracts were specially constructed for this activity. N
participants, however, believed that they were authentic.

a "good example." The student from S. E. Asian studies, in contrast, offered a problem–solution format, and one uncannily similar to the classic schema of Hoey (1983): situation —> problem —> solution —> evaluation. A further clear difference among the three architectures can be seen in their handling of Abstract 8, the one where the author basically argues that nothing can be done in this area without the support of the engineering faculty. The public-health student put it first because of its greatest generality; the S. E. Asian Studies student put it last. The psychology student, however, dropped it altogether, ending his presentation with: "... that's my story. So, I dropped study 8, which doesn't have anything to do with this claim."

Table 5.1
Literature Reviews: Initial Individual Architectures

Social Sciences:	
S1 Organizational Psychology (Korea)	[3 5 1 4 7] [6 2] [9 7] [8]
S2 Social Psychology (Korea)	[3 2 5] [4] [6] [1 7] [9]
S3 Social Work (Japan)	[5] [8 9 3 4] [7 9 2 6]
S4 Urban Planning (Korea)	[1 5 3 4] [7 6 9 2 8]
S5 S. E. Asian Studies (Thailand)	[1 4] [2 3 6 7 9] [2 3 4 6 9] [5 8]
Humanities:	
H1 Vis. Sch., Applied Linguistics (Brazil)	[8] [5 6 9 7] [3 1 4 2]
H2 Vis. Sch., Philosophy (Germany)	[1 5 8] [4 6 3] [2 3 9]
H3 Latin-American Literature (Mexico)	[1 4 7 8 9] [6] [2 3 4 5 8]
H4 Theater (Thailand)	[5] [8 3] [4 1] [6] [9] [7] [2]
Biological & Health Sciences:	
B1 Dental Public Health (Thailand)	[3 5 8] [1 4 7] [9 2 6]
B2 Public Health (Puerto Rico)	[8] [3 2] [1 4 5] [6 9 7]
B3 Cellular Biology (China)	[8] [5 3 4 2] [1 6 7 9]
Physical Sciences & Engineering:	
E1 IOE (Korea)	[5 1 8] [3 4 9 6]

The full panoply of "intelligent variation" is shown in Table 5.1. We have subclassified the students' provenance using the graduate school's four divisions. The numbers refer to the numbers of the abstracts listed on the handout, which are then given in the order in which they appeared on the diagrams. The square brackets refer to their schematic groupings; in previous classes these groupings have tended to be closely correlated with paragraphs in the subsequent write-ups.

As the table shows, the number of groupings ranged from two (E1) to seven (H4), which is likely to be reflected later in variation in the number of paragraphs. Visual scan of the features in the table shows few overall tendencies, although several combinations appear together frequently (e.g., Abstract 4 appears with either 3 or 1 in all but two LR structures). However, readers may have noted that all groups except the social sciences group consistently placed Abstract 8 near the beginning, almost always in the first grouping. In contrast, the social scientists tended to place Abstract 8 at the end; one student (S2) resolved its problematic

nature by boldly dropping it. Another detectable trend is quite understandable a majority of students placed the three "special cases" (6, 7, and 9) toward t the two most obvious exceptions to this were H1 and H3. Finally, S5's stru more complex, in that she repeated a number of citations.

However, these tendencies may be deceptive. For example, when we c the four biological and health sciences students from the previous year particular view to seeing how they had handled Abstract 8, we found these pa

[1 4 5] [3 8] [9 6] [7 2]
[5 4 1] [6 9] [8 3 2]
[5 3 8] [1 4 7] [6 2 9]
[5 4 1 9] [6 7] [8 3 2]

As can be seen, only one of these four placed Abstract 8 in the first group.

In the 1998 class discussion, one of the most debated versions was that a Mexican student in Latin American literature. Her primary opening categ "engineering student populations by geographical region." One of the scientists (S1) observed that this choice was "not the major thing," and the ins noted that it would be "difficult to write up." In response, in the intervening before the next class, the student wrote an impassioned defense of her s arguing that in different educational locations, needs and solutions could different and that these need to be taken into account. Here is her opening pa (unedited):

> My last assignment reflected the categories I, as a student of literature, wou chosen, not what an engineering student would. I think I did not see the relev other choices, and the biased side of mine. Maybe the tendency to classify by the literary production comes, among other things, from the awareness of terri I see in post colonial countries such as mine. So, this explains, in a way, my inc to do what I did in my classification. Maybe that also explains the devotio category for considering engineering women. I see that this classification was n a "scientific" one as the other approaches showed in class where the categories result of a very different way of thinking. Personally, doing this exercise was in to me mainly because it showed me the way that I am used to thinking, the idea about other fields and my criteria for forming categories.

No EAP instructor could wish for a more eloquent or perceptive response, an the class read it the next week, the others were happy to retract their criticis to acknowledge that they too had learned something new about the academi from H3's justification of her "post-colonial" thinking.

Overall, two general precepts emerge from this first phase of this LR e The first is that the *imposition of order* on this recalcitrant material can tak plausible forms, even when the literature available for review and the diss topic are preset. Secondly, the nature of that order seems to be partly affecte

participants' disciplinary training and education. The literature student, as we have seen, focused on territory; in contrast, B3, a biochemist who spends much of his day performing laboratory experiments, said that he organized his literature review "following the steps of science research." In 1996, a Peruvian systematic botanist produced, as part of his disciplinary tradition, a complex multilayered taxonomy. Intellectual confidence may also play a part, at least evidenced by the fact that S2, a brilliant and highly successful student, was the only individual in 1998 to deliberately exclude an abstract because it did not fit his argument. On the other hand, in these groups of well-acculturated students, we have not been able to find any influences from the participants' first language and culture. We suspect that any remaining traces of national–cultural proclivities have been overlaid by disciplinary conventions.

At the end of this first session, participants are asked to send their first draft LRs to the instructor before the next class. They are reminded that there may well have been something to learn from the class discussion and are warned that, irrespective of the merits or otherwise of a particular scheme, some approaches may be harder to write up than others. In fact, a number of the class did make adjustments. Here is the attached commentary from H1, the visiting scholar in applied linguistics (unedited):

> Brief comments on why I changed my framework:
>
> When I first thought of the framework to be used in the section, I imagined it would be easier to start it using the "bad-news-first, light-at-the-end-of-the-tunnel-last" approach. Two things, however, made me change. The first was the group discussion (particularly [S1's] argument of that as issue of further consideration). The second one, was your foresight of how tricky that construction could be. I even tried to keep my original framework, but eventually gave up. Concerning Sullivan (1991), as you will easily realize, I didn't know where to put it (neither now, nor at the time I tried to set up my framework). It didn't fit the logical structure of my argument, but I felt compelled to use it anyway.
>
> You will also realize that I made some other changes in structure of paragraphs. These were much more related to making both my writing and the flowing of the argument an easier task.

In the second session, the drafts are returned with comments on organization, transitions, and flow, and with suggested textual emendations. Attention then focuses on several issues of various kinds. The first concerns questions of metadiscourse, which had already been extensively aired in pre-LR sessions; more particularly, what might be said to link Section Five of the review with the preceding and following ones. For this, a number of opening paragraphs are photocopied for review, each identified by a letter. The class is first asked to try to work out who the authors were. Although this activity might appear to be a rather trivial game, it does have the serious underlying purpose of making the participants cast their minds back to what had been shown and said the previous week. Then certain points are taken

up, as in the italicized pieces of this opening sentence:

> This section *provides* several case studies *concerning about* the teaching of cor
> cation skills to engineering students.

Next, openings are reviewed for the claims made. Consider these two extra

> For this reason, the area of teaching communications skills has received consi
> attention in terms of its development.
> Given the growing importance of communication skills in Engineering no
> research about it has been carried out.

Who is right? And how might their judgments be affected by home discipl

Another major topic involves "copying," paraphrase, generalizatio summary (Hyland, 2000). However, for this, extracts from the drafts writte previous class are used because class questions and challenges concerning sive "copying" or "lifting" from the original can be embarrassing or confronta Here is a shortened version of the current handout for this:

> Here is Abstract 7 [not given here]
>
> On the second sheet you will find a number of "treatments" of Pradip & Rahim. look at them in pairs, view them in terms of these parameters. Write your code margin.
> Information (or the amount of detail in P & R that is retained)
> I o (the amount is about right)
> I + (more information is retained that really necessary)
> I - (the information is insufficient)
>
> Paraphrase (or the amount of rewriting/summarizing of the original)
> P o (nicely done; captures the essence of the original in partly different words
> P + (perhaps too much changed; doesn't accurately represent the original)
> P - (too much lifted from the original; raises issues of plagiarism)
>
> Linkage & Commentary
> LC o (adequately relates and evaluates P & R in terms of other work)
> LC + (is overly concerned with evaluation)
> LC - (merely describes P & R in terms of itself)
>
> Finally, of the 8 versions, which two would you *most* have wanted to write? And two would you *least* have wanted to write?
> A.
> Another communication program is developed by Pradip and Rahim (1992) for en ing graduates. All of these programs show appreciable results.

B.
Pradip & Rahim have developed training courses for engineering graduates stressing cross-cultural differences via a case study approach of success and failure in Indian computer engineering initiatives for export, and again find signs of beneficial results.

C.
In their article Pradip and Rahim (1992) talk about the successes in Indian computer engineering and also point out its weakness as a result of communication failures. They relate this with cross-cultural differences in negotiations, writing, laws and contractual obligations among Indian, Japanese and North American leaders in technology.

D.
Finally, there is one paper that deals with the communication problems of practicing engineers rather than students; once again, the case study approach appears to have been beneficial—this time for computer engineers in Bombay (Pradip & Rahim, 1992).

The final element in the second class session concerns the role, if any, of evaluative comments and how any of these might need to be related to the goals of Fulani's dissertation. Participants are then asked to revise their LRs and resubmit them.

The original nine abstracts, including the citational information, amount to a little more than 900 words. In 1998 the revised drafts varied in length from about 350 words (H2, the German visiting scholar in philosophy) to about 750 words (S1, a Korean in organizational psychology). Most of these are now pretty impressive scholarly documents. For example, here is how H1, the Brazilian applied linguist, eventually dealt with the "tricky" problem of Sullivan (1991):

> The only large-scale study ... (Sullivan, 1991) suggests that the key factor to the acceptability of the program (and by inference to its success) is not the quality of the program itself, but faculty support for it... The issues ... deserve further consideration, not only because of its intrinsic importance, but also because of its implications for the formative evaluation purported by this study. That discussion belongs, however, to the next section of this chapter. [!]

Another example consists of S1's closing paragraph and demonstrates, we believe, a *convincing* level of evaluation, excellent cohesion, and smoothness of argument:

> Overall, researchers seem to agree with the importance of using real-life context in engineering communication courses. Despite the apparent consensus about *what* to teach, there still remains the problem of *how* to teach. Researchers have tried various methods to teach engineers how to communicate and each method appears to be successful for a specific purpose and a special population. Considering that effectiveness of a specific method depends on some moderating variables, future studies should focus on the effects of these moderating parameters, such as purposes of the course, educational and cultural settings, and target population. [original emphases]

The third and final session is largely given over to celebration and congratul on jobs well done, as well as dealing with some minor editing. It seems to u Fulan A. Fulani is well on his way to writing a successful dissertation prosp

DISCUSSION

Several stages of reading as well as writing are involved in the process of comp a literature review. At the outset, there is the business of finding relevant ite literature, often involving database searches, increasingly on the web, and t notes on these items. As it happens, this aspect of obtaining the relevant refer is well documented in various literatures and regularly demonstrated in work run by library staff. Transforming those separate readings into a succinc coherent account of a disciplinary or interdisciplinary line of research dema particular kind of reading–writing connection which, inter alia, needs tc intertextual account of citation and paraphrase. Beyond that, there are questi sequencing and focus in terms of the researcher's goals. Overall, the rhetorically a highly demanding part-genre that generally presents greater rhet problems than methods and results sections.

Although some writing manuals discuss several of the rhetorical der mentioned, and a few suggest different possible ways of ordering studie literature review, most have little to say on how or why a writer should ch particular approach when constructing the review. The non-native speaker participated in the activity described in this chapter not only came up with a g number of intelligent structures than are typically proposed in the literature, b were able to elucidate much about the reasoning behind the various appro They noted that these structures were often related to the discipline of the a and that some structures that they might not have previously considered (s H3's geographical organization) might be appropriate in some cases. These s valuable observations can be enhanced by the fact that participants not only h manage the original abstracts, but also must pay attention to and co-negotia observations and preferences of others. This, then, is an intertextual exercise perspectives, which may, as H3 noted, show "the way that [they are] u thinking, the ideas [they] have about other fields and [their] criteria for fo categories." The participants' observations and perceptions will now, in an ef develop *transfer of learning* (c.f. Wolfson & Willinsky, 1998), be directed t their readings in their own disciplines, so that they will be more aware of ho why authors might put a literature review together in a particular way.

A further positive aspect of the exercise is its product-oriented emphasis. of organization, metadiscourse, claims made, paraphrase, generalization, mary, and evaluation, as well as the finer language points associated with the often treated separately; here they are all addressed in a cohesive activity that them together in a meaningful and practical way. Students are thus able to se these aspects work together to build literature reviews that are integrated int papers and address their own research questions.

The instructor's role in EAP writing classes, perhaps especially those that are not discipline-specific, has long been a contentious issue (Johns, 1997; Spack, 1988). However, when Spack wrote in 1988, "To suggest that an ESL/EFL instructor can unlock the door to the entire academic universe of discourse is to overlook the complexity and diversity among and within disciplines" (p. 708), she started from an odd premise. No instructor, however polymathic and experienced, can ever really hope to unlock that huge door; what she or he *can* do is help the participants unlock that door for themselves. At least in the case of the junior scholars attending ELI 520 and ELI 600, they can be helped to become more observant readers of the discoursal conventions of their fields and thereby deepen their rhetorical perspectives on their own disciplines. They can be persuaded to help in the instructor's own investigations of academic discourse by conducting mini-studies in their own fields. Indeed, their highly developed analytical skills in their own fields and their commitment to empirical evidence make them surprisingly useful and willing collaborators in various kinds of linguistic analysis. They can also be led to recognize that, if and when they return to their own countries, they will likely have to help some of their own conationals with academic or professional writing in English.

This has been a practitioner paper, written by practitioners for practitioners. Not unexpectedly, writing in this sub-genre, constructing this account of what happens in about five hours of class time, has had its proactive aspects as well as its reflective ones. On one level, we can now see how it would be profitable to give more attention to reporting verbs, especially as Hyland (2000) has recently shown how these vary greatly from discipline to discipline. We can also in hindsight now conceive of methodological refinements, much bolstered by Gosden (1998). For example, with e-mail now widely available, we would like to experiment with having at least some of the "architectures" constructed by disciplinarily close pairs rather than by single individuals. More importantly, the act of writing up this story has both uncovered a weakness in the original design and produced a promising solution. We would be the first to concede that the current LR exercise is very much a *sui generis* activity and only lightly connected to Fulani's major rhetorical purpose/primary hypothesis, which we do not in fact know. The closest we come to those larger communicative purposes is the brief discussion of the claims made, that is, whether we "know" quite a lot or remarkably little about the teaching of communication skills to engineering students. As it happens, the LR in a prospectus or dissertation proposal can probably get away with being agnostic about such assessments. No so in the dissertation itself; not so after the research findings are in. This sea change is, of course, one important reason why students discover (often to their chagrin) that they cannot simply "import" their prospectus LRs into their dissertations. In the future, the LR unit will extend to a fourth week. Participants will be told to fast-forward to 12 months later, to a time when Fulani is writing the second chapter of his dissertation. Let us imagine that his research, among other things, has pointed to these two conclusions:

1. The rapid spread of computer technology has radically changed the c nication skills needed by engineering students;

2. Both engineering education and practice are becoming more globalize increasing focus on binational and multinational projects.

How would participants *now* write up the nine abstracts? (And perha later pieces of research that need to be incorporated, including one by himself!)

Finally, on the broader front, the advanced non-native speaking write figure prominently in this chapter are not the novice writers with "thei simplistic sterile theories of texts" described by Johns in this volume. But th can be helped both to become better genre theorists and to acquire appreciation of intertextuality, with all this last might imply for appr paraphrase (Currie, 1998). For these purposes, there is considerable "model the activities we have described. However, because of the exigencies of the L genre, this has not taken the form of "traditional" genre analysis with its fo instructor-presented cycles of "moves" (for example, Swales, 1990). Inste modeled architectures are devised by the participants and are then pre discussed, and perhaps modified. In this sociocognitive process, the demon heterogeneity of responses to a shared task, probably influenced in subtle w disciplinary approach and outlook, actually turns out to be a source of enl ment rather than confusion.