ENGLISH FOR ACADEMIC PURPOSES: A CASE STUDY IN A WRITING CLINIC

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The authors describe a detailed case study of a student who was preparing and writing papers on his subject. He attended ½ hour weekly sessions at the clinic, where papers he submitted to the subject specialist professor were analyzed carefully. It was found that what might not be clear or comprehensible to the ESL teacher might be perfectly acceptable to the subject specialist. Team work seems to be necessary, so that the student, the subject specialist and the ESL instructor (and perhaps a member of the reading audience) share in this task.

1. INTRODUCTION

Research on Writing Clinics (also called Writing Centers and Writing Labs) is in its infancy. North (1984) details what little research has been done with native speaker (NS) writing in such centers[1], commenting:

> We must not merely accept and operate by our assumptions, but we must test them, challenge them, reshape them. Just plain teaching is not enough. (North 1984, 24).

We agree. Hillocks, describing dozens of studies in the area of composition research, concludes that:

> We cannot afford to reject one mode of research in favor of another (i.e. case study vs. quantitative). Rather, if we wish to understand the processes of composing and to improve the teaching of composition, we need to use whatever modes of research are useful to learn as much as we can (1986: 246).

As far as non-native speakers (NNSs) in Writing Clinics are concerned, we are at a very early stage indeed and it may be that case studies are most appropriate. We have had very limited experience with running such Writing Clinics. Extensive networking (at conferences, phone calls, etc.) during the academic year 1986-87, however, showed that colleagues were beginning to plan and create such clinics, but were, by-and-large in the dark concerning questions such as pedagogical content of the Clinic, training for tutors, relationship to Writing Clinics for NSs, as well as appropriate considerations

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[1]A newsletter entitled "Writing Lab Newsletter" has been created to chronicle such research and its implications for teaching. It can be ordered from Muriel Harris, Dept. of English, Purdue University, West Lafayette, IN 47907.

regarding "success". This is a true English for Academic Purposes (EAP) set of problems since we are interested in writing effectiveness that is *not* judged solely by ESL/EFL teachers, but primarily by teachers of the subject specialisms. In terms of research, we are interested in empirical studies which look at the effectiveness of NNS Clinic tutoring related to success in particular disciplines. We know of no such studies.

We hoped to begin to fill this research gap by doing a detailed case study of one student who was preparing and writing papers on his subject while attending 1/2 hour weekly sessions at the Clinic. One set of the papers were submitted to the subject specialist professor during the term they were being analyzed carefully in the Clinic sessions. We report here on several aspects of the larger study.

In essence, this sort of teaching experience is the EAP nightmare par excellence. Language for specific purposes work, when carried to its logical conclusion, implies an infinite regress in that each EAP student must have an individual teaching experience. This point is much discussed in the EAP literature (cf. Alderson & Hughes 1981, passim). Here we face directly the following question: how can we in ESL provide individual EAP written tutorial experience related to the student's ongoing course work without understanding the concepts of the discipline and without knowing something of what is expected for success in the discipline in general and in that course in particular (which might not be the same thing)? Must the teaching be all individual or is there particular work that all (some?, which?) students might need for success in their course work and what might that be? Specifically, is it reasonable to expect that explicit rhetorical instruction (topic statement, comparison and contrast, definition, classification, etc.) is bound to help most NNS students who show up at the Clinic with writing problems?

In order to deal with this area, we feel that Clinic instructors must somehow gain continued access to the content professors of our clinic students. Otherwise, we are convinced that we will be working in an unacceptable vacuum. What might appear wrong or be unclear or incomprehensible to us in ESL might turn out to be quite acceptable and even the norm in a particular discipline. We thus enter into the EAP realm of using subject specialist informant (SSI). What this means is that we must develop explicit procedures for talking to colleagues in the subject disciplines about the changes in writing that we recommend to our mutual students. We have to remember that there are most often two student interrelated goals: clear written presentation of a problem in the specialism and accurate use of the language to do that.

In EAP work we often run up against mismatches or potential mismatches. Suppose that based on extensive experience teaching writing to NNSs, we present the Writing Clinic student with 10 "safe" prescriptions to change version one of his/her paper to version two. EAP experience tells us that there is bound to be a mismatch between what we tell the student is necessary for "good" academic writing and what the subject specialist professor thinks is necessary *in that particular context*. But exactly how many of these ten will be useful where it counts, i.e. in terms of "readability" (in the broad sense) by subject professor? We know one thing that must be true or we would not have given the student these writing prescription: a) a good part of the 10 will be relevant. But, b) realistically, we also feel that not all 10 will be relevant for the unknown audience. This is the type of information we need to know, namely, we need to have

explicit detail on the effect of our pedagogical input in terms of "safe rules" (SRs)[2], as they relate to clarity and comprehensibility of the student's product in the particular academic experience concerned. Explicit procedures for gaining technical content and relevant rhetorical information would be useful for we need to know from research when pedagogical intervention has a good chance of being profitable and when it does not.

SSI work can be traced in the EAP literature from Selinker (1979), to Swales' (1981, chapter 1) discussion, to Pettinari (1982), to Huckin & Olsen's (1984) replication of Selinker (1979), to Bley-Vroman & Selinker (1984), and to the placing of SSI work in a larger context (Swales 1987). Careful principles are explored in these references, from cyclical principles, to the choice of texts to be studied, to doing a "quick and dirty" analysis, to criteria for the "good" SSI, to working from a pre-informant to a post-informant session, to "negotiating a new reality" with the SSI, to the problem of differing information from different informants, -- all of this involving too much detail to present here. We refer the interested reader to these sources and their citations. One result for the EAP specialist who is tutoring a student in a new discipline, as pointed out by Swales (1987), is that such procedures help the EAP teacher get out of the bind of "I don't know what I don't know".

In the final analysis the goal of our exploratory study concerns research methodology as much as it does content. How are we to research an area important to students, an area where no research at all seems to have been done? To summarize, the area we are concerned with is that of NNS Writing Clinic work where increased readability and comprehensibility *for the subject professor* in technical language that is deemed acceptable becomes the desired result.

2. THE STUDY

The subject, Detlef, a native speaker of German in his mid-twenties, is an MA student in political science at the University of Michigan. He spent 1984-85 as an exchange student at the University and returned in 1986 to do graduate work. He self-selected into the Clinic through a campus newspaper ad. His speaking ability in English is excellent. From an initial interview, he stated that writing in English is important to him, not only for his studies, but for a possible post-doctoral grant and, eventually, he wishes to publish in English. Throughout our interactions, he has been continually positive about Clinic work and the case study research to the point of making important suggestions for improvement of both.

He initially felt that the nature of his writing problem was "writing papers in terms of precision, with a few grammatical errors". He signed up for 1/2 hour per week of tutorial work. All tutorial work was done by LS and was audio taped. Sometimes other members of the research team were present as observers. Detlef brought material that he had written for his courses in two forms: a completed paper from the previous semester and a series of drafts for the current semester, drafts ranging from the planning stage to the final version.

[2]The safe rule approach to the teaching of NNS composition is explored in Selinker, Kumaravadi-velu and Miller (1986).

2.1. *The Completed Paper*

The title of the paper was "Personal Rule and Political Clientelism". It is clear from this title that he is trying to link in some way two concepts in political science, perhaps even attempting to contrast them. The overall rhetorical structure of the paper is that after a brief introduction (his section 1), he begins to discuss the first concept "Personal Rule" in terms of a definition (section 2). Then he moves to the second concept "Political Clientelism" in terms of a classification (3). Then he does a comparison (4) of the two concepts B in terms of "Levels of Analysis" (4.1), "Conditions of Emergence" (4.2), "Sources of Authority" (4.3), "Limits of Authority" (4.4), the "Role of the State" (4.5), "Elite-Mass Linkage" (4.6), and "How to Stabilize Power" (4.7). He concludes with section 5, "Two Economic Theories of Cooperation"; 5.1 is "The Microeconomic Theory of Exchange" and 5.2 is "Prisoner's Dilemma".

It took quite a bit of tutorial time, perhaps three sessions, to get clear to the EAP tutor the empirical and theoretical relationships of the two concepts to each other, from the point of view of the writer. One problem was the lack of rhetorical parallelism in sections 2 and 3. Section 2 begins with an explicit definition: "The concept of 'personal rule' can be defined as...", whereas 3 begins with an explicit classification: "Two types of 'political clientelism' will be introduced in this chapter"[3], leaving the definition of "political clientelism" implicit, i.e. to be inferred by the reader. The student was asked if this is what he wanted. His positive answer was puzzling until his "hidden agenda" (see below) began to become clear. In the Clinic sessions, the rhetorical concepts "explicit definition", "explicit classification" and their implicit counterparts were explained using the student's work as examples. Also, the notion of writing "safely", where the writer's intention should come across clearly to the reader through the use of explicit SRs (cf. Selinker, Kumaravadivelu and Miller 1986), was explained in a similar way. There seemed to be no problem with comprehension of these notions.

After presenting the explicit classification, Section 2 continued with an explicit definition of one of the subclasses with the sentence: "By 'type A political clientelism' we understand...". Some more problems in comprehension began to arise with the paragraph opening sentence: "Under 'type B political clientelism': we may think of...". Why wasn't there a definition here, but a list of examples? The next paragraph, *rhetorically buried on page three*, caused real consternation to the tutor:

> From my point of view it is questionable whether to subsume type B clientelism under the concept of clientelism. If one takes the Schumpeterian definition of the "*democratic process* (as)... that institutional arrangement for arriving at political decisions in which individuals acquire power to decide by means of a competitive struggle for the people's vote" (Schumpeter 1950, 269; emphasis added) then "type B" political clientelism tends to be a reflection of one of the functions of a party.

Why is he suddenly criticising what he is describing? Extended discussion on writer

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[3]There were a number of lexical, grammatical, and punctuation problems which are not covered here. The term suggested in place of his word "chapter" was "section", with "chapter" being inappropriate to term paper use. This suggestion sparked some discussion because the term "section", it turns out, is both bigger and smaller than "chapter", depending on what is being discussed.

intention brought out that he had a hidden agenda, which from the point of view of his composing he was apparently unaware of, i.e. that one of the goals of the paper was to "question the usefulness" of this accepted terminological grouping in political science. One of the problems here was possible interlanguage (IL)-particular semantics, i.e. what may appear to be target-like in English is only superficially so[4]. It was suggested to the student that it is inherently "unsafe" to have hidden agendas in term papers and that this hidden goal of his paper should be brought up to Section 1 and made explicit.

Working with this material brought up the suspicion that Detlef may be having trouble writing "purpose statements", which from a SR point of view should not be difficult, for all one has to write is "The purpose of this paper is...". What we did not know we did not know was how complicated helping a student understand for himself and then write purpose statements which are tied to intricate and still-to be-formulated ideas could be in a field we know little about. In this case, clarity of understanding became difficult for the EAP tutor when on page 5, buried deeply in his section 4.2, the following phrase occurred:

> In this paper I will concentrate on "type A" political clientelism although occasional references will be made to mass clientelism.

This is indeed an explicit purpose statement, but after discussion, it seemed to be a sub-purpose of the paper Detlef intended to write. This is the type of thing that must be checked out with relevant SSIs.

So, we move to the SSI session with Detlef's professor which was audio taped. The tape clearly shows our inexperience in gaining the kind of information desired from the SSI; we just did not seem to be able to gain the specific information on Detlef's writing we wished. It seems that our questions were not quite probing and precise enough and that the common technical language base between us and the SSI about Detlef's writing had not been achieved. Moreover, two months had elapsed since the paper was turned in, clearly too much time for detailed data collection. However, we did elicit a useful retrospective general statement which could help guide our work in the future:

> The comments I have made on the paper are probably fewer than I would make on a native speaker... mmm... many of the mistakes... mmm... some of the mistakes are the same kinds of mistakes a native speaker would make. Others are things that I think have to do with... quite fine points of the language that... mmm... come only with experience. Although my guess is... my guess is that... ah... people who teach this... ah... especially who teach English or any language to foreigners learn very quickly what the pattern of errors are. I know the errors... I've never done analysis of them... I know the errors tend to be somewhat similar... ah... with people from particular areas. I don't know why they are similar. I am sure it has something to do with the translation. [Here there is an interesting story about his brother's experience with German writing in English and with German and English clichés].

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[4]One phrase was: "The 'personal rule' concept chooses mainly the macrolevel of analysis", with the word "choose" seemingly out of place. The student did not know if this was a particular usage in his technical field. In any case, we were here reminded of Corder's (1981) useful concept of "covert error", where IL-particular semantics of target-like syntax and lexical choice is a real possibility.

First, in order to gain the type of information desired, we need to work on pulling the SSI away from concentrating on surface errors, i.e. from an error analysis (EA) perspective, toward a more interactive-IL perspective where detailed clarity and comprehensibility between NS reader and NNS writer are foremost. Second, there are a number of testable claims derivable from this statement: in comparative N/NN terms, is it in fact the case that the frequency would vary as claimed? And how same/different would the *type* of comment be? Which parts of the student's IL might change toward target-like "fine points" with "experience", which might need pedagogical intervention, and which might permanently fossilize, no matter what is done? And which of these affect comprehensibility in terms of precision of meaning (where Detlef began) and for which types of audience? Would writing product and writing difficulties be highly similar for students from the same NL background in a particular academic discipline and, for that matter, in the various technical Englishes used in different disciplines?

After detailed discussion among the team members on these and similar points, we then moved in the Clinic sessions to a weekly consideration of a project Detlef brought to us in the planning stages.

2.2. *The Series of Drafts*

The second form of work done by Detlef in the Writing Clinic consisted of a series of four drafts for the current semester, drafts written and rewritten after Clinic experiences and further research on his part. The goal of this writing assignment was to prepare a "query" after designing a research project that was not necessarily intended to be carried out. The term "query" appeared to us to be clear initially, then was mystifying and did not become clear to us until the SSI session, when it was put in a larger context. The SSI session was held just before the end of the term (see below).

We were ready for difficulties with the purpose statement. On version 1 in the initial "Justification" section, we read:

> The focus of this research proposal is not the focus at the accidents which are cases of abnormally high exposure but at the link between the increase of the variety and volume of toxic chemicals produced and traded and the impact of adverse environmental responses on one hand to the degree and scope of international regulation by international organizations and international regimes on the other one.

Besides obvious correction of such things as preposition use, "on one hand... on the other one", etc., we wondered how this purpose statement was related to a negative goal, which seemed to us unsafe to present in a purpose statement, and how it was related to the query of version 1:

> *Query*: Does the increase in the variety and volume of toxic chemicals produced and traded lead to an increasing degree and scope of international regulation by IGOs and international regimes?
> (IGOs = International Governmental Organizations).

There were many things unclear to us here. It turns out that part of what we didn't know is that "produced" vs. "traded" yield two sets of statistical figures and Detlef had at this point not chosen which one, or both, he would study. His expected answer to the

query was "yes" it must be statistically significant. He had in mind "a mental model" which he produced in version 2 and which we reproduce as Appendix II here. This model was amended throughout the research. What was also not clear involved key terms in the query and their relationships to each other. [He had similar problems in the paper described in the previous section.] As we understood from the oral Clinic sessions, a) the variety and volume of toxic chemicals produced and traded would lead to the intervening variable b) environmental adverse effect which would lead to c) international regulations, somehow related to "degree and scope". We needed the SSI session to get a handle on this as well, to learn where our lack of understanding of the version presented to us derived from.

In version 2, which he brought to the Clinic one week later, he classified the variables into complex "a" and "b" types and revised the negative statement into an "although" clause:

> Although the standard focus may be on explaining those accidents in a broader perspective (i.e., as cases of abnormally high exposure) I will systematically investigate the link between
> a1) the increase in the variety of toxic chemicals produced and
> a2) volume of toxic chemicals traded and
> b1) the degree and
> b2) scope of international regulation by international organizations and international re-
>   gimes.

Note that there is new information here: that what he is not going to study is "the standard focus". And note that this is the same sort of thing that he did in the paper described in the previous section, which led us to consider the possibility of recurrent IL strategies in Detlef's writing. As one can imagine, we had terrible trouble with the word "link" — there are just too many things to provide one "link". And suddenly there appear to be not three, but four variables. Or are there? He told us that he still had to decide whether to concentrate on trade or production. Also, we now have three concepts that appear related: "increase", "production" and "volume", which we were also unclear about. He stated that he felt he was having trouble with the purpose statement in its relationship to the statistical and conceptual underpinnings of the chart reproduced in Appendix II. His query for version 2 now read:

> *Query*: To what degree does the increase in the variety of toxic chemicals produced and the volume of toxic chemicals traded lead to an increasing degree and scope of international regulation by IGOs and international regimes?

One thing that became clear at this point was the unstated presupposition that the unit of analysis was the nation, which led to a partial decoding of this potentially ambiguous sentence, since it is the increase in the variety as well as *the increase* in the volume by nation states that is at issue here. Or, at least, so we thought at this stage of the game.

In version 3, brought the next week, the numbers disappear, with spacing, dashes and white space now used to show structure of the various variables:

> Although the standard focus may be on explaining those accidents in a broader perspective (i.e., as cases of abnormally high exposure) in this research design I will systematically investigate the link between the following *predictors*:

— increased registered toxic chemicals (International Register of Potentially Toxic Chemicals of UNEP ⟨IRPTC⟩),
— increase in the value of world production of IRPTC relative to world GNP,
— increase in the value of world trade of IRPTC chemicals and the following *outcome variables*:
— "scope" of international regulation by IGOs and INGOs and
— "degree" of international regulation by IGOs and INGOs.

(UNEP = United Nations Environmental Program; INGOs = International Nongovernmental Organization)

There are new initials which we had to deal with and there now appear to us to be even more variables involved, but we learn the classification of types of variables in this sort of study, i.e. "predictors" vs. "outcome variables". We have less of a problem with the word "link" since there are only two major sets of factors to compare, but he also intends to "link" the sub-factors. He informed us here that he made his content decisions to work with both trade and production statistics and something concerning "open indicators" which we never cleared up. Note that conceptually between versions 2 and 3, the numbering of "a1" and "a2" is removed and this is because he is "now sure of the predictors" and we now have a 3×2 matrix. The query for version 3 now appears as:

QUERY: Does the increase in world production, classification as, and world trade of IRPTC chemicals vary positively with "scope" as well as "degree" of international regulation of IRPTC chemicals by IGOs and INGOs?

We have an obvious grammatical problem here with content ramifications. What does "classification as" refer to? Detlef stated that this construction would pose no problem in written technical German and our informant for German agreed. In content terms, how do the predictors relate to the outcome variables in terms of a further "directional" hypothesis which was stated in a later section "Spatial-Temporal Domain"? The null hypothesis is that there is no relation between predictors and outcome variables instead of a statistically determined relationship which Detlef would hope to show should he carry out the research.

In version 4, to our surprise, there was a major change:

Concluding from this I will systematically investigate the relationship between the following *predictors*:
— increase in registered toxic chemicals (International Register of Potentially Toxic Chemicals of UNEP ⟨IRPTC⟩),
— increase in the value of world production of IRPTC relative to world GNP,
— increase in the value or world trade of IRPTC chemicals, and each of the following *outcome variables*:

— "scope" of international regulation by IGOs and
— "degree" of international regulation by IGOs.

INGOs are dropped because "the focus would be too broad". Some of the information in what we were calling the purpose statements is now subsumed in the initial "Justification" section which is now related more to the literature and to "why this particular query". What was "purpose" is now seen as "conclusion" to what has to be

researched and is moved from page one to page three of the draft. Also, he dropped out the "standard focus" from the paper because "it is clear that I don't want to deal with catastrophes any more". This information is not there explicitly, but is assumed for the reader. The final query now reads:

QUERY: Does the increase in the number of IRPTC substances, the increase in world production of IRPTCs and the increase in world trade IRPTC substances each lead to an increase in the "scope" as well as "degree" of international regulation of IRPTC chemicals by IGOs?

The query itself seems clearer to us, as does the new concluding/purpose statement. We think that through the Writing Clinic work, we have helped this student clarify various rhetorical/grammatical dimensions of this writing and would like to think that we have also helped him conceptualize his content as well. But we need evidence to be sure of the how and the what.

So we move to the SSI session with Detlef's second professor, which was also audio taped. In one or two points, we seemed to have improved in gaining the kind of information desired from the SSI. We held this SSI session without the student, since he suggested that his presence might bias the interaction. In this session, we particularly learned about the term "query" and its use in this particular context. We did not know that the term is not part of the general discipline, but relates to the professor's teaching philosophy. The definition given is that it is a "plain speak version" of an empirical hypothesis; it is "what will drive the research". He contrasted his use of the term "query" with the term "theory", where theory refers to "a codified body of knowledge". He also helped clear up the student's use of other technical terms, such as "scope" and "degree". It turned out that the lack of understanding was in the written versions and not ours. The SSI points out that the student introduced "the notion of scope and degree and so far he has not told us what the distinction is between scope and degree... oh... he mentions them and that's all". While reading version 3, the SSI states:

OK we now know the distinction he is making. Scope will capture the number of types of chemicals and degree is meant to capture the extent to which these chemicals are regulated.

This information clears up for us much of the difficulty we had in following the argument and, of course, in dealing with advising on clarity and comprehensibility of the student's various versions.

Additionally, we found out that the apparently unsafe strategy of starting a purpose statement with a negative is not regarded so badly in this context. Part of what the professor is trying to teach his students is to get clear what they are *not* going to research. He stated, though, that "there is deep division among researchers and teachers on this issue".

The "obvious" grammatical problem we saw in the query in version 3 was not a problem for the professor, since he stated that he was used to German writing in technical English and of course he knew the content. What interested us particularly was that to the professor the query "was perfectly clear even in the first version". What is not clear is whether someone who had not spoken to Detlef and who had no experience with German writing, but who knew the subject matter would have the comprehension difficulties we experienced.

Finally, one of the interesting results of this session with the SSI was an invitation to one of our research assistants, JT, to take the professor's senior tutorial, researching the written work done in the course, since it is designated as relating to the university's senior writing requirement. We see a good opportunity here for enhanced SSI work and cooperative research, especially in the area of establishing NS norms and, perhaps, in studying NS/NNS comparisons.

3. Conclusion

What have we learned?

In this paper we are concerned with the EAP area of NNS Writing Clinic work where increased readability and comprehensibility for the subject professor is the desired result. We stated in the introduction that we know of no empirical research in this area and that the goal of our exploratory study must concern research methodology as much as it does content. We want to know how we can empirically study an area which is important to students, an area where we in EAP need to learn to speak to a group of SSIs, the various subject professors of our mutual students about a new topic: the clarity and comprehensibility of versions of student academic writing after we have made specific SR suggestions on the immediately preceding draft. Our perspective is that we must learn to speak in a principled way to these informants or we will work in the dark with the goal of our teaching degenerating to comprehensibility of student academic writing for ESL teachers alone.

In this final section, we briefly look at what we have learned in terms of both content and research methodology.

3.1. *Content*

There are several points regarding teaching and learning content that we feel are worth mentioning here.

3.1.1. Hidden Agendas: In this type of writing one does not explicitly state one's purpose, but leaves it up to the reader to struggle to infer it. It is our belief that in the genre of student academic papers, this is inherently unsafe. In the Detlef case, what we *relearned* was that a hidden agenda could involve the complex interaction of subject content and rhetorical strategies. Detlef wanted to challenge a traditional classification in his field through the use of an empirical argument. [Cf. in the genre of journal articles, the description of the genetics example cited in Selinker (1979) and discussion in Huckin & Olsen 1984]. Getting clarity in this matter took the EAP specialist several Clinic sessions. It is our conclusion that Clinic teachers cannot help improve student writing for academic purposes unless such underlying communicative intentions of the student writer are explicitly known.

3.1.2. Purpose Statements: From a SR perspective, as mentioned above, explicit purpose statements have always seemed simple. In still-to-be-formulated writing, the writing of an explicit purpose statement might in fact turn out to be the hardest task. It was quite hard here. In the first of Detlef's work discussed above, a hidden agenda became clear during consultation and an explicit purpose statement which was really a sub-purpose of the entire paper appeared buried deep in the paper in a way that could prove misleading. In the second type of work, i.e. the four drafts studied above, what

seemed to us to be a clear purpose statement was intertwined with a term new to us in student EAP writing: "query". The details are described above. Note that in the realm of "we don't know what we don't know", none of us in EAP work could have guessed that a so-called "purpose" statement could be relatable to "conclusion" concepts in the way described here. As far as we are aware, this rhetorical linkage has not been previously discussed in the rhetorical/grammatical and discourse analysis literature.

Additionally, one thing that we counseled as unsafe is the beginning of a purpose statement with a negative. In this particular context, we may have been misleading the student since our advice may have gone against one of the professor's teaching goals. It is unclear whether we are dealing here solely with a conceptual problem or a technical SR problem compounded by audience considerations. We need to do more research in this dimension.

3.1.3. Some Testable Hypotheses: We would now be able to derive some testable hypotheses from discussion with the SSIs concerning frequency claims, NS/NNS comparisons and the empirical establishment of NS baselines, comparison of the same subject writing in the N vs. the NN language, individual IL writing similarities and differences with the same NL background, the role of experience vs. pedagogical interventions, type and quality of professor comments, the setting up of negative statements in SR formulation, student writing strategies and writing problems carried over from one academic writing assignment to the next, potential mismatches in what is not clear to EAP readers vs. what is clear to subject specialist readers, and explicit content information which the student later feels can be left implicit.

3.1.4. Technical Terms: The one that proved most difficult in this study was the term "query". It was not until the SSI session that we learned that this is not a term from political science, but a term unique to the professor and related to his teaching philosophy. In general, we in EAP have not been conceptually ready in the past for such localized phenomena to occur. Interestingly, we were able to gain a more complete understanding of this term only when it was explained in relation to another term, the widely-used term "theory". We once again can be fooled by common language terms used technically (cf. Selinker 1979) which may take us awhile to realize have technical connotations which we need to learn in order to do our job. And of course we often underestimate the time and energy needed to gain sufficient understanding of such concepts.

3.1.5. NS Adjustments to IL writing: It is clear that in some academic contexts IL writing is more expected than in others and that ajustments to such writing may be made. In both SSI interviews it was clear that the professors had admiration for the student and were willing to adjust their expectations for an intelligent student "who was working hard". Furthermore, one of the professors had taught in Germany and was used to German-English IL technical writing. This is a variable totally uncontrolled for in our thinking. We were wondering though whether this was perhaps a "garden path" situation where communicative needs were being met. In second language acquisition terms, under such conditions fossilizations of the student IL writing might be encouraged. [Cf. Corder 1981 and the special issue of the *English for Specific Purposes Journal*, 6.2, 1987, on "Language for Specific Purposes and Interlanguage".] This could hurt the student in the long run since his stated goal is to publish in English for the general specialist public. We have to remember that there are two interrelated goals for our

students: the clear presentation of a problem in the specialism and the accurate use of the language to do that.

3.1.6. Helping with "Top-down" Revision; we saw changes in the parts of the four drafts that we focussed on above. Most of these changes related to rhetorical instruction where we tried to move student written IL toward a more precise expression of developing intentions. Not much is known about what is often called top-down strategies (i.e. from rhetorical choice of organization of text to related grammatical choice) of composing in academic disciplines, especially as related to student IL academic writing. Note that with a top-down approach to clinic tutoring, we are saying that the important types of pedagogical intervention in one-on-one writing instruction are not at the sentence level and "up", but at the level of text "down". The descriptive analysis of Detlef's writing experiences related to text changes from one draft to the next belong to the genre of studies of "writing across languages". The series of studies in Connor and Kaplan (1987) provide an important contribution to descriptive analysis of written second language texts and to understanding the composing processes that create such texts. The editors point out (1) that "text" in this sense is "an extremely complex structure". We agree and hope that complexity of content and rhetorical structure shown here should help to clarify some of the descriptive complexity of dealing with NNS student academic writing in a top-down sense.

But could we have helped Detlef any better? Specifically, could we have provided him with exercise material that would have helped him to focus on his writing strategies? Remember that we are in the realm of the EAP nightmare which at its extreme implies a different course for each student. Is there any type of self-editing materials that we could give Clinic students that might help? We think so and would like to introduce here the "student self analysis" sheet (Appendix I) which was adapted for the Writing Clinic on the basis of the research conducted here and which is derived from a SR teaching aid developed for ESL at a lower level teaching experience. (cf. Selinker, Kumaravadivelu & Miller 1986). We think that not only could this help a student in moving from one draft of his paper to the next, but it should help bridge the gap in mutual understanding between the EAP specialist and the subject specialist (see below).

3.2. *Research Methodology*

We argued above that we must develop explicit procedures for talking to specialist colleagues in the subject disciplines about the changes that we recommend to our mutual students for their academic written work and that we need carefully detailed descriptions of the interactive processes used to gain content and rhetorical information from an SSI.

In some important sense the search for effective procedures has become the goal of our research. We want to discover ways of finding out in some empirical form whether tutoring in an NNS Writing Clinic makes a difference in the student's academic life and what that difference might be. The research problem is how we discover in detail after a Clinic experience what, if anything, has improved in the student's writing in various disciplines for various professors with different backgrounds and different demands on the student? We saw above that some demands are idiosyncratic and some seem to be more widespread, so we need to be open to this dimension.

Based on this study, one major inefficiency in our EAP Writing Clinic research still seems to be in the area of establishing mutual understanding, i.e. a common base of talk with the professorial SSI. We need to figure out ways that will allow the SSI to *efficiently* clue into exactly what we are after. Listening carefully to the audio tapes of the SSI sessions, it is clear to us that we are now not able to efficiently gain the kind of information discussed in this paper: i.e. which of the SR prescriptions we give to students to improve their writing in fact make a difference in terms of comprehensibility of intended technical message and which do not, and for which audiences.

Perhaps our research procedures should go like this[5]: first, we read student draft 1 and ask him/her to fill out a student self analysis sheet (see Appendix I). We then write a summary of the suggested SRs (and our reasons for each) related to that draft based on interview data and discussion of the self analysis sheet with the student. We must be careful to understand intended message as it first appears in student writing. Then we look at draft 2 to see if the suggested SRs have been implemented and how. Here we must be open to changes in intended message as the student's own research proceeds.

Next, we bring the packet of draft 1, student self analysis sheet, suggested SRs and draft 2 to the SSI without the student being present. We ask, in this audio taped interview, if draft 2 is better in specific ways and how (if) the suggested changes were needed and why. It is our guess that going through the student self analysis sheet with the SSI, away from expository academic prose, will help clarify for the EAP specialist some of the technical points, the content and rhetorical organization factors, needed to work with student academic composing processes and should aid the SSI with entering our "we don't know what we don't know" realm. Obviously, a case study here would prove helpful.

However, as a final point, we still must strive for that mutual common ground which has made SSI work successful in the past. Here is one suggestion: presenting the SSI with one or two relevant papers. One thing that seemed to make a difference in the genetics SSI study reported in Selinker (1979) was that the SSI was willing to read our papers on rhetorical/grammatical analysis of technical texts when we were after an understanding of journal articles that our students had to read. In this new area of NNS Writing Clinic work, perhaps presenting our informants with a case study of a Clinic student will strike the necessary spark. Perhaps even the reading of this paper by future SSIs will help mutual understanding, for if product is indeed part of process, we hope that the production and use of this paper will aid those SSIs who wish to talk to EAP colleagues in a principled way for the benefit of our mutual students.

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[5]It is unclear to us whether we should in principle always start first with an oral student consultation. We can make an argument either way. This may be one of those applied linguistic matters which will be decided by experience and not by theory.

Soden. In setting up our Clinic initially, discussions with Carol David, Liz Hamp-Lyons, Tom Huckin and Lev Soudek were particularly helpful. Much valuable discussion was held with Helen Morris and Jamina Tepley who worked on "the Detlef project" with lots of energy and intelligence. They also collected the audio taped data with the subject specialist informants. Dana Sleicher helped by providing language transfer information concerning possible effects on Detlef's writing of his native German. Patsy Aldridge, ELI Librarian, helped with references in her usual competent and enthusiastic way. Professors Sam Barnes and David Singer of the Political Science Department were most gracious in giving of their time to serve as subject specialist informants for this project. Their insights were invaluable.

The linguist Kenneth Pike once waxed eloquent on the value of a good informant, especially the informant's intelligence and insight. Our student informant Detlef Sprinz provided this and more. He served in various roles throughout the project: enthusiastic student in the Writing Clinic; perceptive critic of the Writing Clinic; eager facilitator of access to the specialist informant professors; and, finally, designer of a better study, which we hope to be able to do.

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APPENDIX I

ELI WRITING CLINIC   STUDENT SELF ANALYSIS SHEET

Name _____   Date _____

Writing Clinic Teacher _____   Your phone _____

Draft # _____ for course # _____

Course Title _____   Professor _____

In answering these questions related to your current draft, refer to the Clinic handout: "Description of Safe Rules".

1. What is your assignment in your own words? (attach xeroxes of relevant handouts).

2. What is your topic?

3. Create a safe topic statement as outlined in the safe rules.

4. Introduction: What "moves" did you use and what is the content of each?
   a.
   b.
   c.
   d.
5. List briefly, in the order you wrote them, the main points of your paper.
   a.
   b.
   c.
   d.
   e.
6. How did you organize your paper, i.e. what rhetorical strategies did you use?
   a.
   b.
   c.
   d.
7. Conclusion: what strategies did you use?
   a.
   b.
8. If this version of your paper is draft 2 or beyond, describe the major changes from the previous version and why you have made these changes.

9. If you had written this paper in your own language, how would it have been different? Better? More complete? Easier to understand by subject specialists in your native language? Etc.

10. Other comments on this work, e.g. difficulties you have, SRs you have found helpful or misleading, time constraints, etc.

APPENDIX II
MENTAL MODEL OF VARIABLES RELATED TO VERSION II OF
"THE SERIES OF DRAFTS"

PREDICTORS	INTERVENING VARIABLES	OUTCOME VARIABLES	RD TOXIC CHEMICALS (VERSION 2) PS 661

sectorial economic development

increase in registered toxic chemicals/substances IRPTC $+^1$

increase in world production of IRPTC chemicals $+$

increase in world trade of IRPTC chemicals $+$

international research $+$

international pressure by environmental groups $+$

domestic regulation $+$

trade/market share $+$ "leverage"

"scope" of international regulation by IGOs & INGOs

"degree"^{2} of international regulation

FLOW CHART (VERSION 2)

6 APR 87

(+) refers to relation between predictors and outcome variables

^{1}regulation of share of IRPTC
^{2}severity of regulation

—3—