RESPONSES *to* ENGLISH *for* SPECIFIC PURPOSES

ESP

RESPONSES *to* ESP

English for Specific Purposes

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Published by the U.S. Department of State in 2000. Discontinued in 2015.

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Introduction

Responses to ESP is an accessible introduction to the world of ESP and a practical supplementary textbook for ESP teacher training. It has been used in MATESOL (Master's Degree in Teaching English to Speakers of Other Languages) and other ESOL training programs with an ESP component. It may also be of interest to ESP practitioners who would like to see how curricula for other forms of ESP have been developed.

The text is based on the published articles in the "English for Specific Purposes" column in the *CATESOL* (California Teachers of English to Speakers of Other Languages) *News*. Not surprisingly, most of the authors are from California, USA. However, many other states in the US are represented, as well as contributors from Argentina, Cuba, Finland, Hong Kong, Israel, Spain, and Sweden. With the exception of B. Fallis and J. Johnson, who despite an exhaustive search could not be located, the contributions have all been used with the permission of the individual authors and the CATESOL organization. However, the authors are only responsible for the reading text in each unit. The small group tasks and activities attached to each text were constructed by the editor of the column to retain consistency throughout the volume.

The title is based on the fact that each article usually represents the untutored response of a trained ESOL teacher to a new ESP situation. Prior to submission, each author was asked to imagine that a trained ESOL instructor had suddenly been confronted with an assignment to teach the form of ESP concerned and asked, "What would such an instructor need to know in order to be able to handle the ESP situation assigned?" They were also asked to include at least one practical example of an activity or exercise that had worked well in the ESP class they were describing.

The units are divided into one general and seven specific areas of ESP: General English for Specific Purposes (General ESP), English for Academic Purposes (EAP), English for the Arts (EA), English for Business and Economics (EBE), English for Legal Purposes (ELP), English for Medical Purposes (EMP), English for Science and Technology (EST), English for Sociocultural Purposes (ESCP), and

English for Vocational Purposes (EVP). Within each area, the units are arranged chronologically to provide a sense of their historical context. Furthermore, many of the questions at the end of the reading ask the reader to consider certain aspects of ESP that may have changed in light of current thinking.

Each unit consists of a reading text followed by references for citations that occurred both in the text and in the subsequent applications. The applications are divided into small group tasks and activities. The small group tasks are designed for use in cooperative learning situations. They require a closer perusal of the text and often invite speculation on the contents. The tasks may be assigned one or two to a group, depending on the number of groups in the classroom, with a designated group speaker presenting the responses aloud to the entire class. The tasks may also be assigned to pairs such that each pair is responsible for one answer. Since they are designed to invite discussion, they are best utilized as a stimulus for interaction between at least two people; they are not designed to be comprehension questions assigned for individual homework. The activities, on the other hand, may be done either in groups or by individuals. They require the generation of parallel assignments, the design of exercises and curricula, and the adaptation of materials, including audio- and videotapes, on a similar topic. At the end of each unit, there is a brief biostatement of the author(s) of the column.

Although many of the articles were written several years ago, the issues addressed are still timely. These texts have been used successfully in several workshops and classes. They provide a wide array of ESP contexts, and are thus an appropriate introduction to the field. Most important, however, is the fact that the texts are short and accessible, and they allow present or future ESP teachers or practitioners to see that teaching ESP is not as difficult as they may have feared.

Peter Master, July 1998

THE CURRENT SITUATION

Ann M. Johns

Peter Master has asked me to write on the efficacy of instruction with an ESP focus as compared to instruction that has a more general focus. I find this task rather difficult since it seems to me obvious that an ESP approach in any teaching environment and for any group of students is preferable to "Teaching English for No Obvious Reason" (TENOR) or "Teaching the English I Guess Is Right" (TEGIR). Because of my faith in the efficacy of ESP and its potential for our students, it is my hope that the recent backsliding on the ESP issue leading to Peter's request (see, e.g., Spack, 1988) is a result not of laziness but of innocence about the progress of the ESP movement, what it encompasses, and what it presently offers to teachers and curriculum designers at every level of education.

If we agree that an ESP approach requires a well-designed and researched curriculum and pedagogy for a specified group of students, then we see ESP all around us, alive and well in K-12 schools, in adult schools, in colleges and universities. I would be very surprised if anyone were asked to justify the growing influence of content-based instruction in the elementary and secondary schools, embodying the principle central to ESP: that ESL should not be taught in a vacuum, but should prepare students, in the most efficient way possible, for the content and tasks to which they will be exposed. It would also be surprising to be asked to justify the vocational ESL movement, which has been so successful in preparing refugees and others for job entry and retraining (*ESP Journal*, 3 [2]). ESP exists in other well-respected ESL environments, also: in the English-for-academic-purposes programs on many college campuses, in the English-for-business classes for professionals, and in English-for-science-and-technology classes.

Why, then, must we justify the ESP movement when, in fact, it is alive, well and thriving? Because it continues to be easier to teach TENOR or TEGIR than to develop appropriate ESP materials and pedagogy for specified student populations. Though I understand this "ease" argument, I also believe that just because ESP is difficult, we should not give it up, but should, instead, increase our efforts to provide for our students what is most appropriate for them. Continuing advances in ESP, two of which I will discuss here, can assist us in attaining these goals.

From CATESOL News 1988

DISCOURSE COMMUNITIES

One hurdle for the ESP practitioner is the problem of understanding and relating the conventions and rules of the discourse communities in which our students must function, communities with ways of speaking and acting which may be significantly different linguistically and pragmatically from what the students have encountered in the past. Though gaining and transmitting this information to students presents major obstacles, there is a growing literature that can assist us. Since I am most familiar with the work in English for adult professionals and academics, I will discuss it here as one example of what is transpiring. In this area, texts and journals devoted to native speaker writing, especially, provide a rich resource for understanding how to study discourse communities (e.g., history, science) and for finding out what has been learned about these communities. I have found most useful the journals *Written Communication* and *College Composition and Communication*. Other sources for learning about academic communities, with authors better known to ESL teachers, include Swales, 1990 and Johns, 1990. Some progress has been made in understanding the business community and its rules (see, e.g., Neu, 1986 and Bhatia, 1993) as well. What is discussed in all of this recent literature is not the classic ESP feature count which answers questions such as "How many sentences in this type of scientific text are in the passive?" but a much more sophisticated approach to genre and conventions that, in the end, should be of significant benefit to practitioners.

AUTHENTICITY

There is another, complementary, trend in ESP which has already become beneficial to teachers, especially in elementary and secondary schools. This is the emphasis upon learner strategies and authenticity of practice in the language classroom. Henry Widdowson, a major figure in the ESP movement, has long contended that our motivation for selecting course materials should be a search for an "authenticity" very different from that traditionally discussed in ESP. According to Widdowson (1981):

> *A process-oriented approach . . . accepts from the outset that the language data given to the learner will not be preserved in store intact but will be used as grist to the mental mill. Hence the language content of the course is selected not because it is representative of what the learner will have to deal with after the course is over but because it is likely to activate strategies for learning while the course is in progress (p. 5).*

This issue of learner processes and strategies is a feature of the content-based instruction movement in this country, reflected in the work of Chamot and O'Malley and their colleagues (1987). In the international ESP movement, Hutchinson and Waters (1987) have given impetus to the emphasis upon appropriate classroom practice, devising a number of activities which are intended to "activate appropriate strategies for learning" and to help students cope with the task demands of target situations.

What I am arguing in this short discussion is that despite the obstacles presented, we must continue our efforts to make our classes as specific to student purposes and approaches to learning as possible. Although it may be difficult at times to pin down what students need to know and do, we have no alternative but to attempt to develop curricula and pedagogy ever more appropriate to our student populations.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The efficacy of ESP has never been empirically proven. Instead, it has been largely based on faith, as the author of this reading also demonstrates. What are the opinions of the members of your group on this issue? Why is it that no research has been undertaken to try to prove the effectiveness of ESP vs. EGP (English for General Purposes)? Is the fact that ESP has survived and grown since its beginnings in the 1960s sufficient proof of its usefulness? Is it even possible to prove its efficacy?
2. What is content-based instruction? Is it only used in elementary and secondary schools?
3. What is a discourse community? Why is it important for ESP?
4. The author finds that native-speaker writing journals are a valuable resource for understanding discourse communities. Are there other native-speaker sources that ESP professionals might find useful?
5. The "classic ESP feature count" (e.g., "How many sentences in this type of scientific text are in the passive?") characterized early ESP research. Is there no longer a use for such counts, as the author implies? What features, if any, might it be valuable to count?
6. What is meant by "genre?" Why is it important for ESP?
7. The term *authenticity* in ESP has traditionally referred to materials, e.g., studying a research article in an EST class. In this reading, the author uses the term *authenticity* to refer to "practice in the language classroom." Discuss what this might mean. How would it be applied in the ESP classroom?

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General English for Specific Purposes

General ESP

READING AND CONTENT IN ESP

Peter Master

It should be clear from the outset that I do not share the belief held by some practitioners that the ESP instructor must also be a content instructor. Of course, an EST instructor must have a genuine interest in science and technology just as an EBE instructor must have a genuine interest in business and economics. As an EST instructor, I keep myself abreast of the latest findings in science and technology by reading *Science News*, which by the way is also an excellent source of short authentic reading materials, by watching science programs on television, and, for example, by discussing with my brother the fascinating projects in his engineering firm. But I do not pretend to be a scientist, nor do I pretend to be so to my students. I want them to know this because, I want them to explain to me what they know. And I want them to perceive me as somebody who can help them to do this in the best way, in English.

NONSIMPLIFIED MATERIAL

Just because I am a non-expert, however, does not mean that I prefer the use of simplified material. Such material is appropriate at lower levels of instruction, but I believe that ESP should not be introduced until the student has a general, though by no means perfect, control of the English language. I count myself to be of the "motivation" school in ESP, not the "shortcut to English" school which suggests that students can be taught a limited subset of the language in order to function within the domain of that subset. Widdowson and others have been critical of this approach because "it limits the potential that many students have for attaining self-fulfilling occupations" (Eckard 1983). For me, if students are to be motivated to learn and perfect their English because they perceive it to be truly useful for their eventual professional lives, then to some extent we do them a disservice if we suggest that technical prose will be easier than it is. I am talking now about using authentic materials for reading purposes, not for the teaching of, say, grammar or writing. Huckin and Olsen's text *English for Science and Technology* (1983) errs in this direction. For example, in using authentic text for exercises that provide practice with the article system, the text is so dense that the purpose of the exercises, to make a certain aspect of article usage clear to the student, is sometimes lost.

From CATESOL News 1988

So what do we do when students say that the text is too difficult for them? In some cases, the students may be correct: the text is truly over their heads and attempting to force them to comprehend it will simply cause them to give up. Gebhard (1987) discusses certain devices by which a teacher can ascertain whether a text is too difficult, e.g., by the students' success rate on reading-based comprehension questions of various types or on a cloze test in which, beginning with the third line, every fifth or seventh word is deleted. But in most cases, students need to be shown that they already have the skills necessary to read. They just need lots of practice. By familiarizing the students with certain reading attack skills, we can show them that just because they don't understand a certain vocabulary item does not mean that they have to stop there. Students won't believe this at first, but with repeated practice, they can be shown that they can do it. As Krashen (1985) and others have said, the more time spent on reading, the more students gain in reading achievement. Success generates success.

USING READING PASSAGES

An excellent source for short reading passages is the already mentioned *Science News*. And repeatedly using the same type of text "narrows the scope" of the student's reading (cf. Krashen 1981 on "narrow reading"). The short passages can be used as timed reading exercises (You might say, for instance, "You have three minutes to determine the main idea of this paragraph."). This could also be made into a competition. ("Which team can get the gist of this material the quickest?") Remember: doing this once or twice is not enough. It must be done again and again until the students see that it is possible. All of this material can also be used, of course, for intensive reading analysis afterwards (e.g., "Which words showed you the relationship of sentence 1 to sentence 2? Which word or words definitely prevented you from getting the gist of the paragraph?"). Summaries can also be written of the paragraphs. This is especially useful in teaching paraphrasing and in generating an abstract.

Longer passages can then be dealt with using cooperative learning techniques. For example, the class would be broken up into groups and each assigned a part of the passage to read, analyze and generate a summary. After working on this for a time, the teacher as facilitator helping individual groups as necessary, each group in correct sequence reads its summary so that at the end, the class has heard a summary of the entire piece. Such an exercise is given greater relevance if it doesn't stop there. The passage should be something that the students will need for a later assignment so that they are moti-

vated to really listen to what the other groups have to say. For example, perhaps this reading will be the basis of a later writing assignment or an oral report. Or perhaps comprehension questions are assigned for homework. The students will have to read the passage again, but now they have been provided with a set of schemata to facilitate a broader understanding of the passage.

THE ESP INSTRUCTOR AND CONTENT COURSES

Finally, I would like to discuss working with a subject expert in ESP classes, also known as the adjunct model. In light of my "motivation school" bias, I believe providing the means to succeed in a content course can definitely motivate a student, and research has shown that learning language through content is an excellent way to increase language proficiency. If an ESP instructor has the opportunity to work with subject experts, the adjunct model guarantees that the ESP teacher remains firmly on the side of language in the language-content dichotomy. Hutchinson and Waters (1980) argue strongly that the role of the ESP teacher should be not to teach content but to provide the means to be able to cope with content. "The ESP teacher should therefore supply the underlying competence which the overseas student must have as a prerequisite for learning if he is to engage successfully in [a content class, not to] ... 'rehearse' superficial aspects of what will actually happen in that educational setting" (Swales 1985, p. 176).

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APPLICATIONS

Small Group Tasks

Directions: Address one of the tasks in a group of 4-5 persons and prepare a group speaker to give a public response to the rest of the class.

1. Discuss the notion that an ESP instructor must also be a content instructor. What are the advantages and disadvantages of this belief from both the student's and the teacher's points of view?
2. Discuss the author's statement "I do not pretend to be a scientist, nor do I pretend to be so to my students. I want them to know this because I want them to explain to me what they know." Is this a valid response on the part of an ESP teacher, or is it just an excuse?
3. Discuss the author's claim that "to some extent we do them [EST students] a disservice if we suggest that technical prose will be easier than it is." Do you agree or disagree with this statement?
4. Do you agree that a cloze test is an effective technique for assessing the relative difficulty of a reading passage?
5. Narrow reading is focused and repeated reading on a single topic. What are the advantages and disadvantages of narrow reading? Should it only be practiced in ESP?
6. What is meant by "a set of schemata"? Why is this essential in "top-down" reading processing?
7. Discuss the following summary of Hutchinson & Waters (1980) from Swales (1985). Do you agree with it? What is meant by "underlying competence"?

    The ESP teacher should therefore supply the underlying competence which the overseas student must have as a prerequisite for learning if he is to engage successfully in (a content class), not to rehearse superficial aspects of what will actually happen in that educational setting.

Activities

1. Create a cloze test from this paragraph from the article based on the following principles:

    a. Leave the first two lines complete.
    b. Delete every fifth word

So what do we do when students say that the text is too difficult for them? In some cases, the students may be correct: the text is truly over their heads and attempting to force them to comprehend it will simply cause them to give up. Gebhard (1987) discusses certain devices by which a teacher can ascertain whether a text is too difficult, e.g., by the students' success rate on reading-based comprehension questions of various types or on a cloze test in which, beginning with the third line, every fifth or seventh word is deleted. But in most cases, students need to be shown that they already have the skills necessary to read. They just need lots of practice. By familiarizing the students with certain reading attack skills, we can show them that just because they don't understand a certain vocabulary item does not mean that they have to stop there. Students won't believe this at first, but with repeated practice, they can be shown that they can do it. As Krashen (1985) and others have said, the more time spent on reading, the more students gain in reading achievement. Success generates success.

Make a list of the words that have been deleted. Does the cloze test you have generated focus more on function words (auxiliary verbs, pronouns, prepositions, conjunctions, and determiners) or more on content words (verbs, nouns, adjectives, and adverbs)? Count them up. If one type predominates, how might you create a better balance?

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THE DEVELOPMENT OF ESP

Peter Master

The concept of English for a special purpose arose in the early 1960s partly in response to the recognized need for improved communication between the developed and the developing countries of the world. The developing nations were hungry for "the explosion of technical information in this century (which) has caused English to become the *lingua franca* of the international community" (Hitchcock 1978:9), and the developed nations were anxious to provide appropriate aid. With the status of *lingua franca* came the self-conscious realization on the part of the English teaching profession that the English language was desired "...not for the purpose of spreading British or American social and cultural values but as a natural link within multi-cultural, multi-lingual societies as a vehicle for international communication, as a global carrier-wave for news, information, entertainment and administration, and as the language in which has taken place the genesis of the second industrial and scientific revolution" (Strevens 1977). This global state of affairs in conjunction with the increasing recognition of the need for relevance in English language teaching and the work of Labov, Hymes and Gumperz on language in social contexts all came together under the rubric ESP, English for Special (now Specific) Purposes.

The first focus of ESP was on the lexis. The idea was that normal ESL materials would be used but that subject-specific lexical items would be substituted for more general terms (e.g., "This is a book" would be replaced by "This is an Erlenmeyer flask"). This was originally labeled "register" for want of a better term, and it led to a useful analysis of several sub-branches of science and technology (EST is the most developed sub-area of ESP), in terms not only of lexis but also of grammatical structure (see Barber 1962). For science, the grammatical differences from "general English" were fewer than imagined, but what was clear was that simple lexical substitution would be insufficient.

With the shift away from linguistics at the sentence level (i. e., the structural and audio-lingual approaches) and an increasing focus on discourse materials, ESP started to look at, in the case of EST for example, "doing science" rather than just describing it. In other words, the view of language as communication opened the way for a more global approach to scientific language, including investigation of the reasoning and conceptual processes scientists applied. The

From CATESOL News 1985

idea that the described rhetorical and discourse structures might be true across languages led to a new concept: that second language learners would learn English by practicing scientific tasks that were already familiar to them in their native languages. Thus a new motivation was described, not just to learn English but to learn English in order to manipulate difficult intellectual material in it.

The focus on the needs of the learner as opposed to the inculcation of linguistic facts led to a general shift away from teacher-centeredness to learner-centeredness. ESP practitioners were encouraged to find and use realistic materials (not invented ones) in trying to best meet the needs of their students. This same de-emphasis on the traditional authoritative teacher role was enjoying a resurgence in general ESL, but ESP really offered the most practical means of identifying learner needs and meeting them directly. Out of this focus on specific need arose the question of whether or not all ESL should be ESP, that is to say, in every ESL situation was it not preferable to analyze what specific skills the learners needed to attain in any given learning situation?

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons and prepare a group speaker to give a public response to the rest of the class.

1. What is meant by a *lingua franca*?
2. Discuss Streven's (1977) notion that the English language is desired "not for the purpose of spreading British or American social and cultural values but as a natural link within multi-cultural, multi-lingual societies." Do you agree that English can be described in this way? Are there any other languages that have a similar function in the world?
3. What is meant by "language in social contexts"?

4. What is normally meant by the term *register*?
5. This reading was written in 1985. Is EST still the most developed sub-area of ESP?
6. Discuss the idea that "second language learners would learn English by practicing scientific tasks that were already familiar to them in their native languages." What are the advantages and disadvantages of such an approach?
7. Discuss the differences between "teacher-centeredness" and "learner-centeredness."
8. What is the term commonly used to describe "realistic materials (not invented ones)."
9. Address the question posed in the reading: Is it not preferable to analyze what specific skills the learners need to attain in *any* given learning situation, not just in ESP?

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IN DEFENSE OF ESP

Peter Master

A recent article by Ron Eckard of Western Kentucky University entitled "What's Wrong with ESP?" has prompted me to look at the ESP movement to try and assess the current *raison d'etre* of specialized English. Eckard criticizes the "set of philosophical and pedagogical implications" on which ESP is based because it leads not to the learning of language but to the more immediate goal of getting a job, getting a promotion, or getting ahead. Says Eckard, "When one teaches or learns English for a specific purpose only, one automatically and callously disregards the multiplicity of uses and purposes that language itself has." He goes on to cite an incident in which a Thai waiter, "who had apparently taken a short course in something like English for Thai Waiters Who Want to Get a Job in an American Hotel," was unable to respond to a colleague's question as to how the waiter had learned English so well. "The ESP course he had taken was that limited."

This is the first of two pieces of evidence Eckard uses to support his contention that ESP is "a viewpoint without vision." The second is a letter from an article in Oregon State's *English for Specific Purposes* from an ESP student to his teacher asking for a reference. The letter, though comprehensible, contains several grammatical errors, which leads Eckard to assert that the ESP teacher erred in directing this student to an ESP course rather than "a good course in English as a Second Language."

My first thought upon reading Eckard's article was that this was a person who had never taught an ESP course. Had he done so, he would be aware that most ESP courses are merely a sort of blind to motivate students to learn English while apparently nearing themselves to a desired goal. I have long maintained that an ESP teacher must be a well-trained ESL teacher who is sincerely interested in the specialized area being focused upon. In the ESP classroom, all manner of linguistic events both within and outside the field of specialization arise. The experienced ESP teacher incorporates these events into the lesson as a matter of course. Eckard appears to regard ESP not as a sub-area of ELT (English Language Teaching) but rather as "a shortcut to English proficiency" taught by "persons who are not trained in English linguistics and ESL methodology." With this false assumption, no wonder he is upset. He might just as well have criticized those unfortunate non-ESL teachers who are unwittingly thrust into an ESL/EFL class by some administrative decision. Or quack doctors, for that matter.

From CATESOL News 1983

Despite the flaws in Eckard's arguments and assumptions, his article does raise the issue of the narrowing of focus in the vast arena of language competence. My own feeling is that the material covered in any ESL class is limited in some manner, either by the teacher's arbitrary choice, by the textbooks used, or by the needs of the students themselves, the latter being the original reason for ESP in the first place. Eckard's anecdotes actually come not from EAP (English for Academic Purposes), which is usually offered as an advanced option at the end of a series of courses in ESL, but from VESL (vocational ESL). In this domain, another factor is present which Eckard seems to dismiss entirely: that of limitations of time and money. Rather than enroll in a VESL or Survival Skills course in order to be living and working in society as quickly as possible, should a student be obliged to take a six-to-nine-month intensive course in general ESL "just for the sake of learning English"? If the U.S. government had a clearly defined entry program for immigrants, including English instruction (as Canada does), that would be wonderful. But the sheer numbers of immigrants to the U.S. and the "sink-or-swim" attitude of the U.S. immigration service essentially force such students to use whatever means necessary to get a job. They have little inclination to avoid the proffered shortcut.

Eckard finally mentions Widdowson's equation of ESP to the character of Caliban in Shakespeare's *The Tempest*, i.e., that limited language instruction leads, "even with the best intentions," to a slave or at least servant status. He claims that ESP instruction often "limits the potential that many students have for attaining self-fulfilling occupations." This is an important aspect to keep in mind. But who are we to decide what is best for the self-fulfillment of another person? Is it wrong to offer language instruction within a context that a student finds stimulating because of its perceived relation to a desired end? Bearing in mind that ESP is a sub-area of ELT, that it is taught by a trained ESL/ESP practitioner, and that its purpose is to motivate students to learn English, I find myself at the opposite pole asking the same question: What's wrong with ESP?

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons and prepare

a group speaker to give a public response to the rest of the class.

1. Discuss Eckard's claim that ESP is flawed because a Thai waiter he encountered was unable to respond to a colleague's question as to how he had learned English so well. Can you think of any other reasons why this waiter might not have been able to respond?
2. Eckard also claims that an ESP instructor was at fault because an ESP student's letter was comprehensible but contained grammatical errors. Is this a fair conclusion? Would "a good course in English as a Second Language" have solved the problem, as he suggests?
3. Is there any such thing as "a shortcut to English proficiency"?
4. Until comparatively recently, there have not been many good ESP teacher training programs in the world. As a result, the majority of ESP teachers have had to train themselves. However, these are usually trained ESL teachers. Discuss Eckard's suggestion that ESP is taught by "persons who are not trained in English linguistics and ESL methodology." Is such training usually absent from ESP teacher training courses?
5. What is meant by VESL (vocational ESL)? Have any of the members of your group ever observed or taught a VESL class?
6. Discuss the author's suggestion that "limitations of time and money" are a good justification for providing VESL instruction for those who want or need it rather than making all students take a 6-9 month intensive English course.
7. Discuss Widdowson's claim that ESP instruction often "limits the potential that many students have for attaining self-fulfilling occupations." Address the questions posed by the author: Who are we to decide what is best for the self-fulfillment of another person? Is it wrong to offer language instruction within a context that a student finds stimulating because of its perceived relation to a desired end?

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THE FUTURE OF ESP

Peter Master

ESP is largely addressed to adult learners who require English to further their education or to perform a social or working role, without which their development would be restricted or adversely affected in some way (Mackay and Mountford 1978). However, the notion of describing and teaching only those forms which have been determined to be necessary through needs analysis has been criticized in that it "limits the potential that many students have for attaining self-fulfilling occupations." (Eckard 1983). Such restricted input does not, of course, provide the tools for dealing with novel situations. This attitude towards ESP confuses the notion of specialized aim with specialized language. In other words, ESP is not fundamentally different in terms of linguistic usage but differs rather in terms of particular modes of language that are common in scientific, business, educational and vocational settings.

To determine these modes of language, Mackay and Mountford recommend identifying homogeneous groups of language users, characterizing their uses of language in particular circumstances, and gathering a representative selection of these uses. Widdowson (1981) warns, however, that instruction based on these modes of language must be process-oriented, not goal-oriented. The traditional goal- oriented approach uses these descriptions of language use "as a determinant of course content, an area of language to be selected and expressly taught" (Widdowson 1981:8). The process-oriented approach, on the other hand, recognizes the two basic learning styles known as "convergent" and "divergent" (Hudson 1967), the former associated with students of the exact sciences, the latter with students of the arts and the social sciences. It suggests the use of descriptions of specialized language "as evidence of ways of thinking that might indicate how language is to be presented so as to engage the appropriate cognitive styles" (Widdowson 1981:8-9). The distinction is theoretically promising but as Widdowson himself notes, "Things are never as neat as a turn of phrase can make them seem to be" (p. 9).

THE ESP INSTRUCTOR

Whatever ESP theorists might claim about goal- versus process-oriented approaches, most ESP instructors are aware that the needs of their students are primarily linguistic in nature (particularly in relation to reading and writing) and that the students are motivated by

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material from their own fields. Thus, they usually end up offering a mixture of both content and linguistic instruction (or better yet, in my view, linguistic instruction disguised as content) wherein "ways of thinking" are nurtured through the writing component. Strevens (1977) is concerned that "ESP, when developed to the limit of the art, brings improved learning but requires teachers of more advanced experience and training. It is emphatically not a quick and easy option for below-average teachers" (p. 108). I have long advocated the ESP instructor's need for an inherent though nonexpert interest in the content areas being taught.

THE FUTURE OF ESP

Mackay (1981) notes that "the euphoria of the innovative phase in ESP programs has died down" (p. 108), leaving the field open to several questions of accountability:

1. Do these ESP/EST programs work?
2. Are they more effective than previous programs aimed at general language proficiency?
3. If so, in what ways are they more effective?
4. Are there any ways in which they are less effective?
5. Can the expense be justified?
6. Should we spend money on continuous quality control of ESP courses?
7. Is there any evidence that syllabus planners are performing at least as well now, in terms of serving their clients' needs, as they were prior to the ESP epoch?
8. Are there any unintended or unforeseen outcomes resulting from the use of any given ESP program?

Mackay argues that the present need for accountability will force ESP programs to formulate their goals, especially the formal linguistic objectives, very precisely. Swales (1984) adds:

> *There is now a tendency to look beyond the content and its linguistic expression to institutional attitudes and expectations regarding that content; and to look for shared and conflicting expectations of the various groups that make up the members of the institution.*

ESP is still a comparatively young field, having been in existence for less than 25 years. Clearly, the honeymoon is over and self-analy-

sis has set in. But this is not to say that the field is losing ground. On the contrary, as noted earlier, some researchers feel that the learner-centered, needs-based, cognitively-cognizant features that ESP has seen as necessary developments should be applied to all aspects of ESL. Certainly by the time the predicted numbers of ESP students expected in the U.S. in the early nineties arrive (a quarter of a million, according to Huckin & Olsen 1984), ESP should be ready to offer them the most refined English language education to which they have hitherto been exposed.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss some of the ways in which the development of a person's social or working role might be restricted without ESP.
2. Discuss the author's statement that "ESP is not fundamentally different in terms of linguistic usage but differs rather in terms of particular modes of language that are common in scientific, business, educational and vocational settings." Do you agree or disagree with this statement? Are there linguistic usages that are unique to some forms of specialized English?

3. What is the current term for "linguistic instruction disguised as content"?
4. Can field-specific "ways of thinking" be nurtured only through development of the writing skills?
5. Discuss Strevens (1977) statement that ESP "is emphatically not a quick and easy option for below-average teachers." Is this a fair statement, or do you perhaps find it offensive?
6. Discuss the author's statement that all ESP instructors should have "an inherent though non-expert interest in the content areas being taught."
7. Should the features of ESP be applied to all ESL/EFL situations? Discuss.

Activities

1. Mackay (1981) posed eight questions about the effectiveness of ESP. Consider each of these questions in turn to determine if 1) it is still relevant or 2) if it has been satisfactorily answered since 1981. If there are some questions which you feel have not been adequately addressed, how might you go about answering them (e.g., what kind of research would be necessary to provide an answer)?

> 1. Do these ESP/EST programs work?
> 2. Are they more effective than previous programs aimed at general language proficiency?
> 3. If so, in what ways are they more effective?
> 4. Are there any ways in which they are less effective?
> 5. Can the expense be justified?
> 6. Should we spend money on continuous quality control of ESP courses?
> 7. Is there any evidence that syllabus planners are performing at least as well now, in terms of serving their clients' needs, as they were prior to the ESP epoch?
> 8. Are there any unintended or unforeseen outcomes resulting from the use of any given ESP program?

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METHODOLOGY IN ESP

Numa Markee

The acronym ESP to most ESL teachers signifies needs analysis and the development of purpose-specific materials for students specializing in science and technology. The more theoretically-inclined might also mention the work of Munby (1978) as the movement's dominant paradigm. But probably the last thing to be mentioned, if it is mentioned at all, is ESP as a methodological trend.

This is not surprising. A large part of ESP is concerned with needs analysis and materials development. But it is not the most important aspect: indeed, I believe that ESP stands or falls by what happens methodologically in the classroom, not what occurs before the course begins.

This idea is not new. Following Johnson (1982:123), there are two approaches to teaching language as communication. Orthodox ESP, represented by the work of Munby (1978) and Wilkins (1976), predicts the needs of learners before instruction begins. Here, methodology is often treated as an afterthought; the teaching techniques that mediate the materials are thus often surprisingly teacher-centered. Methodological ESP, represented by such writers as Breen and Candlin (1980) and Johnson (1982), often de-emphasizes the importance of needs analysis and materials writing but promotes the use of methodologies that can be quite radically student-centered (see British Council, 1977). Following Markee (1986), there is room for both approaches; the approach we choose depends on how teacher-dependent our students are. In the Third World, for example, the first approach might be preferable. In the US, however, university students in particular are generally flexible enough to allow us to concentrate on the second approach. We must therefore try to use teaching techniques that challenge the learners to communicate on their own account in the classroom.

What does this mean in practice? Extensive group work? Group work is certainly an important component in any communicative methodology, but more important still is the quality of the group work we ask our students to do. Thus, group work which leads to the students answering comprehension questions written by the teacher is less qualitatively communicative than information-gap exercises. By definition, if a task is open-ended (i.e., it has no pre-determined answer), the learners will be using English to define the parameters of the problem to be solved and to suggest possible solutions. Since no single answer is covertly pre-determined by the

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teacher to be "correct," the students are able to defend their positions in real time and on their own terms. The best answers are those that emerge from the students' own discussions, allowing them to evaluate the quality of their own work.

The methodological approach to ESP raises many interesting questions. For example, what is the role of teachers in such an approach? What is the relationship between language use and the teaching of grammar? And what is the role of error correction? To me, the role of the teacher is primarily that of organizer of class activities and facilitator of communicative tasks. This implies that the focus of instruction should be on communication, not grammar. However, this does not mean that grammar is ignored. Following Brumfit (1978), what distinguishes communicative language teaching from traditional approaches is that learners are required to communicate with all available resources first, and only then are asked to focus on the grammatical accuracy of the language they produce. Thus, instead of predicting the language the students will need to do a particular communicative task (an often futile enterprise), facilitators focus the learners' attention on important recurring errors (for example, in the verb system, article usage, or relative clauses) in the language they have just produced. Audio or videotape is a particularly useful tool in this regard. It is during this part of the lesson that teachers revert to their more traditional role as "knowers" of the target language who are qualified to offer learners linguistic assistance in the form of error correction.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Munby's (1978) work provided an exhaustive listing of every speech act and linguistic structure that was encountered in a workplace needs analysis. The author, writing in 1986, described this work as the ESP movement's dominant paradigm. However, though valued for the perspective it provided, Munby's work is no longer considered the movement's dominant paradigm. Why do you think this is so? Is there a dominant paradigm in ESP today?
2. What is meant by "teacher-centered" as opposed to "student-centered" teaching? As a student, which do you prefer?
3. The statement "We must therefore try to use teaching techniques that challenge the learners to communicate on their own account in the classroom" is a clear indication of the author's belief in communicative language teaching. How is the communicative approach different from the more traditional grammar-translation method? What approach have the members of your group experienced as students or practiced as teachers?
4. What is an information-gap exercise? What are its advantages and disadvantages?
5. If you are following the directions for this task, all of you are experiencing group work at this moment. Successful group work (also known as cooperative learning) is usually dependent on two requirements: a) an appropriate task and b) clearly defined group roles. Information-gap exercises are the most appropriate tasks for communicative language learning for the reasons the author describes, although they are not the only tasks that can be effective in group work. The most common group roles are a) leader, b) speaker, c) secretary, and d) time-keeper. Discuss your group's experience of group work. Were you assigned roles? If not, would the task have gone more smoothly if roles had been assigned? What are the advantages and disadvantages of group work in your experience?
6. The author says "Since no single answer is covertly pre-determined by the teacher to be 'correct,' the students are able to defend their positions in real time and on their own terms." The methodology which this statement reflects shifts the responsibility for learning onto the students, a considerable change from the more traditional methodologies in which the teacher controls all aspects of classroom discourse. How would teachers in your home country respond to this methodology? Would they be

willing and able to give up some of their authority in order to promote better language learning in their students?

7. The author states that "instead of predicting the language the students will need to do a particular communicative task, facilitators focus the learners' attention on important recurring errors in the language they have just produced." How would a teacher determine the important recurring errors on which later grammar lessons will focus? In your opinion, will this satisfy the grammatical needs of the students?

Activities

1. Before you begin your group task, ask one member of the group to quietly keep track of the type and frequency of language errors that are made by the other group members during the task. When the task is finished, have this member present the results. From this information, discuss which aspects of grammar you would focus on in a language class for your group. Which order should these aspects be presented in?
2. One way to make an information-gap exercise is to provide different information to two halves of a group, who thereby become "experts" in one area of study. The other half then asks questions about the area that they do not know (this is the information gap). These questions may be supplied as part of the task, or for more advanced groups, the questions might arise spontaneously from the students. Create an information-gap exercise from the reading focusing on the two primary teacher roles of a) the facilitator and b) the manager, which includes teacher as "knower of the language." For each half, provide a text (a description of each teacher role) and a set of questions that the other half will ask in order to acquire the information they do not have. Of course, for such an exercise to work, the students must be aware that they are responsible for learning all the material, not just the material they have become "experts" on.

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VIDEO IN ESP

Robert Underwood

With the increasing availability and sophistication of video equipment, use of the video cassette recorder (VCR) and video camera in the field of ESP has increased proportionally. Although video use offers no sovereign remedies for all the problems associated with an ESP program, it is recognized as a valuable aid and an effective tool for ESP curriculum specialists, materials designers, classroom instructors, and teacher trainers. As a language needs analysis is an early consideration in the design of an ESP program, the use of a video camera provides a quick and accurate method of gathering a portion of the necessary data. The curriculum specialist may enter the chemistry lab, the lecture hall, or board a research vessel to record authentic samples of the English used in these specific locations and situations. By examining these samples, along with other necessary reference materials, the curriculum specialist is able to more accurately determine the structures necessary to be mastered, the registers desired, which skills are most useful, and to what type of language situations the student will be exposed. In addition, the valuable paralinguistic, nonverbal features, such as hand movements, eye contact, facial gestures, and deictic reference to charts, diagrams, and graphs can be recorded and prioritized for introduction into the course. These authentic language tapes may also help determine the terminal goals for the student, and aid the inexperienced instructor to better understand the course content.

Frequently, in the ESP classroom, video is used to do something the instructor cannot do or is forced to do in an inadequate manner. An EAP instructor can teach note-taking skills, which will be useful in the lecture hall, but may be unable to provide a series of lecturers of different styles and topics to give the student adequate practice in real life situations. The instructor may not understand enough of the content of a course in marine biology or nuclear physics to provide the learner with sufficient factual information to keep the learner's interest at a high level. Well-produced video tapes may not only bring factual, interesting, and realistic lectures into the classroom, but also offer an added visual dimension, e.g., marine fauna or the equipment necessary to split an atom, which will aid comprehension.

For VESL purposes, video is useful in providing the learner with examples of how successful interaction or misunderstandings may occur with co-workers or management. Tapes of realistic, on- the-job

From CATESOL News 1984

situations can be examined for verbal and nonverbal behavior, and reasons for communication or miscommunication can be discussed. Students, in turn, can operate the camera, roleplay, and improvise situations. These tapes can be viewed and judged by the participants and instructor. Register, pronunciation, eye contact, cultural differences, and body language can serve as the focus of instruction. Use of the video and its immediate playback feature increases student involvement as well as their interest in the lessons.

In the U.S., video use in ESP programs is still in its early stages. For motivational reasons alone, it offers a valuable service that textbooks and audio cassettes cannot approach. Video should be regarded as an aid that is carefully integrated with other communicative materials to form a well-structured course. Interactive video disc/computer programs in the near future may become entire courses, and for specific purposes, this will be a welcomed and effective use of current technology.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author describes the use of the video camera in performing a needs analysis and several examples of the kinds of data that might be recorded. What might be some of the disadvantages of using this technology in performing a needs analysis? Are there any general advantages or disadvantages you can imagine of using either a video camera or a video cassette recorder (VCR) in the classroom?
2. What kind of preparation would your students need in order to gain maximum benefit from watching a video recording of a lecture? Would it be better to have the class watch an entire lecture or only portions of it? What is the ideal length of a video clip used in the classroom?
3. The author suggests using videotapes to compensate for his or her lack of field-specific knowledge. Discuss the level of knowledge that you believe an ESP instructor should have in order to effectively conduct an ESP class. Do different kinds of ESP require different levels of field-specific knowledge? If so, what is the best way to acquire such knowledge?
4. Discuss how you would use a videotape of a realistic on-the-job situation in the classroom. What preparation would the students require? What step-by-step procedures would you follow in using the videotape? What would you do for follow-up? Are

there any potential problems you can foresee?

5. This article was written in 1984. In your experience, has the use of video cameras and VCRs in the classroom increased since then? Discuss why or why not.

Activities

1. Identify a specific type of ESP that your group is interested in. Make a list of all the items that you can think of that you might bring into the classroom to help stimulate interest and aid comprehension (e.g., the author mentions the use of a videotape in EST to show marine fauna or a particle accelerator).
2. If available, watch a portion of an ESP videotape. Discuss how you would make best use of this videotape in the classroom.
3. If available, watch a videotape of a recent news story concerning a specific aspect of ESP (e.g., business and science would be logical subjects). Discuss how you would incorporate this material into an ESP curriculum.

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ENGLISH FOR ACADEMIC PURPOSES

EAP

WRITING IN THE ACADEMIC ESP CLASS

Peter Master

Writing in the academic ESP grammar class usually involves demonstrating to students the rhetorical frames of reference acceptable to the area of specialization with which the class is concerned. In EST (English for Science and Technology), writing is largely descriptive, concerned as it is with conveying what things are for, what they are composed of, what they look like, how they work, etc. In so doing, great emphasis is placed on the noun phrase and its modification, comparatively little on the verb structure. This writing must furthermore be terse, controlled, and highly organized, in essence like a filing system in which any sub-part of the paper can be readily skimmed if it is not immediately relevant. Surprises and attempts to emotionally manipulate the reader are entirely out of place in EST (imagine the manager who has to sort through twenty proposals!).

One technique for sequencing the written aspect of the EST class is to teach and practice simple descriptive formats which can later be modified for use in longer, multi-faceted reports. These simple rhetorical frameworks include the amplified definition, description of a mechanism (or body part), description of a process, classification, and abstract. Examples of a longer report are the feasibility study, the progress report, and the research report. Memos and press releases are specialized short reports.

In EBE (English for Business and Economics), writing is also concerned with truthful, non-manipulative prose. The key to EBE writing is that it needs to communicate information as quickly and clearly as possible. It seeks information (e.g., a request for loan approval) and confirms information (e.g., loan approved) and is very often the permanent record or proof that something, usually a decision, has transpired. For this reason, EBE writing often carries a sense of urgency that is not necessarily present in scientific prose, whose purpose is often simply to add information to the corpus of scientific knowledge.

As in the EST class, the EBE writing sequence is based on the teaching of simpler formats that can later be modified for use in longer reports. The rhetorical frameworks include business letters that show appreciation, complain, or request information; summaries of information from periodicals or other sources; and subreports that present facts, analyze a problem, or make recommendations. In the final report in the EBE class, all the facets of EBE writing that have been studied are put to use. In this respect, the EST

From CATESOL News 1981

final report is very similar. In fact, the feasibility study is the point at which EST and EBE overlap, for both require the presentation of facts (including financial considerations), the analysis of problems, and the recommendation of a course of action, whether that be to market a new product or to build a bridge.

There are, of course, occasions in scientific writing for the use of communicative business formats and techniques (e.g., memos, press releases, proposals) just as there is a place for scientific description and argumentation in the documentation of facts in business. Together, these forms of writing comprise a major basis of knowledge and interaction in the world of business and science.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Swales (1990) defines genre as a class of communicative events which has (1) a shared set of communicative purposes that are recognized by the parent discourse community, (2) established constraints on contributions in terms of their content, positioning and form, and (3) nomenclature for genres that is determined by the discourse community. The feasibility study, progress report, and research report are all examples of what today we would call genres.

   1a. Which of the following forms of scientific writing (if any) would you consider to be a genre? Explain.

   a) amplified definitions
   b) descriptions of a mechanism (or body part)
   c) descriptions of a process
   d) classifications
   e) abstracts

   1b. Which of the following forms of business writing (if any) would you consider to be a genre? Explain.

   a) business letters that show appreciation, complain, or request information

b) summaries of information from periodicals or other sources
c) sub-reports that present facts, analyze a problem, or make recommendations
d) memos
e) press releases
f) proposals

2. The author describes EBE writing as "the permanent record or proof that something, usually a decision, has transpired." Are there any situations in EST in which such a record might also be necessary?
3. What is a feasibility study? What is a progress report?

Activities

1. The paragraph below, the first paragraph of the reading, is followed by a list of the main noun phrases and main verbs in each sentence.

Writing in the academic ESP grammar class usually involves demonstrating to students the rhetorical frames of reference acceptable to the area of specialization with which the class is concerned. In EST, writing is largely descriptive, concerned as it is with conveying what things are for, what they are composed of, what they look like, how they work, etc. In so doing, great emphasis is placed on the noun phrase and its modification, comparatively little on the verb structure. This writing must furthermore be terse, controlled, and highly organized, in essence like a filing system in which any sub-part of the paper can be readily skimmed if it is not immediately relevant. Surprises and attempts to emotionally manipulate the reader are entirely out of place in EST.

SENTENCE #	NOUN PHRASE	VERB
1	• writing in the academic ESP grammar class • demonstrating to students the rhetorical frames of reference acceptable to the area of specialization with which the class is concerned	usually involves

SENTENCE #	NOUN PHRASE	VERB
2	• writing...concerned as it is with conveying what things are for, what they are composed of, what they look like, how they work, etc.	is
3	• great emphasis	is placed
4	• this writing	must be
5	• surprises and attempts to emotionally manipulate the reader	are

Create a similar list for the following paragraph from a technical journal (Olson, et al., 1991, p. 10).

This paper will briefly review the established graph-theory-based approaches for topological synthesis, and suggest the use of a new graph representation for planetary gear trains in which the geometric axis of all concentric gears is explicitly represented. This representation enables the subsequent topological analysis steps to be performed in a systematic, unambiguous fashion. The representation also makes clear the historical confusion about the meaning of isomorphism for planetary gear trains.

SENTENCE #	NOUN PHRASE	VERB
1	this paper	will briefly review (etc.)

Would you say that the noun phrases in the technical journal paragraph are more substantial than those in the reading? What about the verbs?

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EAP

TEACHING ACADEMIC ESP READING SKILLS

Peter Master

Teaching ESP reading is much like teaching any academic reading class. The difference lies in the highly organized nature of ESP text. Developing the skill of reading requires attention to four aspects: specific reading skills, vocabulary development, intensive and extensive reading, and class discussion to solidify the ideas derived therefrom. Only the first aspect is discussed here.

The specific reading skills include speed reading and its subsets skimming and scanning, analyzing paragraph layout and cohesion, and analyzing complex sentences. Most college programs in the U.S. overwhelm the student with reading material. Foreign students need to learn, however, that a professor's assignment to "Read this book for next week" does not mean "Learn this material" but rather "Have an idea as to the content of this material because it will be discussed in class next week." To this end, students must be taught to skim material by moving the eyes rapidly down the page, reading thought groups rather than individual words. Although some students resist this effort to increase their reading speed, they can be shown that it works by means of reading exercises in which the student is given a very short time to determine the "sense" of a passage, reading the title and the topic sentence (usually early in ESP paragraphs but occasionally at the end) and then skimming for kinds of words (e.g., negative, laudatory, aggressive, conditional), perhaps, or for degree of detail. After a few exercises, students are surprised at their own innate skimming skills.

Scanning, the rapid searching of text for specific information, can also be improved by timed reading exercises with the goal of finding a specific date, name, amount, etc., rather than a general apprehension of content. Teachers usually allow students to read the questions before this kind of exercise so that the object of the search is firmly in mind. ESP students read a variety of material from newspapers, journals, annual reports, textbooks, and other sources. Their motivation is stimulated by the currency of such material, for which reason most ESP teachers resist using a single ESP reading text. The journalistic format differs from that found in a textbook. Magazines and newspapers try to catch the reader's attention by offering all the main ideas in the first paragraph or two and then returning to develop the ideas in greater detail, whereas textbooks tend to develop a single idea completely before a new idea is introduced. Labels and headings

From CATESOL News 1982

are often employed in the latter to maintain the reader's sense of structure.

Paragraph cohesion, both within and among paragraphs, is brought about primarily by transitional devices or by "key phrasing" (see below). The analysis of cohesion is linked to vocabulary development in that it requires knowledge of the meanings of the various transitional devices (conjunctive adverbs, dependent clause markers, etc.). Students can be asked to predict what might follow such a word or phrase in a reading passage before reading it, as reading has been described as a "psycholinguistic guessing game" (Goodman, 1967) in which we anticipate what will come and then have our anticipations confirmed.

Complex sentence analysis first requires the identification of the simple subject(s) and verb(s) of the sentence. This can be fostered by crossing out embedded clauses and other modification devices. Students need to see the location of a main idea vs. a subordinate one in the structure of the complex sentence and finally to understand the logical relationship between the two, an essential prerequisite to decoding the terse writing of academic ESP.

Key phrasing (Swales 1972) is the restatement of a subject in a later sentence or paragraph in one of three ways: 1) direct restatement, 2) partial restatement, often with *this* or *such*, and 3) restatement in an altered form. For example, the topic sentence

Drinking water is usually treated with chlorine before being delivered to consumers.

might be detailed later in sentences such as:

1) Safe drinking water is taken for granted in the U.S. (direct restatement)
2) This water is taken from rivers or mountain reservoirs. (partial restatement with this) or
3) Chlorination kills bacteria that are not removed by settling or filtration. (restatement in an altered form)

The student's understanding of this much-employed technique in the reading class can lead to greatly improved paragraph construction in the writing class, as the application of key phrasing curbs the overuse of transitional phrases and results in a pleasing sense of internal cohesion.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What is meant by "skimming"? What is meant by "scanning"? Which do you think is more important?
2. The author says that "most ESP teachers resist using a single ESP reading text." Can you imagine a circumstance under which this might not be true?
3. What is a conjunctive adverb? What is a dependent clause marker?
4. What is an embedded clause?
5. The most common logical relationships between main and subordinate clauses are additional information, contrary information, cause and effect, and time relationships. How can you determine the logical relationship between a main clause and a subordinate clause?
6. What kind of key phrasing is exhibited in the following quotations from the reading?

> ...students must be taught to skim material by moving the eyes rapidly down the page, reading thought groups rather than individual words. Although some students resist this effort to increase their reading speed, they can be shown that it works by means of reading exercises...
>
> **Scanning**, the rapid searching of text for specific information, can also be improved by timed reading exercises with the goal of finding a specific date, name, amount, etc., rather than a general apprehension of content. Teachers usually allow students to read the questions before this kind of exercise so that the object of the search is firmly in mind.

Key phrasing (Swales 1972) is the restatement of a subject in a later sentence or paragraph in one of three ways: 1) direct restatement, 2) partial restatement, often with *this* or *such*, and 3) restatement in an altered form... The student's understanding of this much-employed technique in the reading class can lead to greatly improved paragraph construction in the writing class, as the application of key phrasing curbs the overuse of transitional phrases and results in a pleasing sense of internal cohesion.

Activities

1. Would a reader be more likely to use the skill of skimming or scanning in performing the following tasks?

   a) finding a specific telephone number in a telephone book
   b) seeing if a newspaper article is worth reading
   c) determining how much sugar is needed in a recipe
   d) getting a sense of how well a company is doing from an annual report
   e) checking the average June temperatures in a travel brochure
   f) determining the level of language in a potential student textbook
   g) checking the meaning of a word in a dictionary
   h) checking the appropriateness of a research article for use in a term paper

2. One way to show students that they already possess innate skimming skills (presuming they are literate in their first and/or second languages) is to give them a very limited time to get the gist of a reading.

   Try this activity with your students or fellow classmates:

   1) Choose a reading of 300-400 words (from a newspaper or this text) that your students have not read before.
   2) Provide instructions: "You will have one minute (more for lower proficiency groups) to determine the main point of this passage, after which you cannot look at the reading passage again."
   3) Have each student report the gist of the passage to another student.
   4) Ask the class to volunteer what they consider to be a good example and write one or two on the blackboard.
   5) Now have students read the passage slowly and completely to see if the gist they determined was indeed correct.

6) Discuss the strategies students used to carry out this task.
7) Repeat the activity again a few days later (students will get better at this the more times they do it)

3. Analyze the first three paragraphs of a textbook chapter and a newspaper article. Do they support the author's description of the difference between textbook and journalistic writing?

4. Label each of the following items as a conjunctive adverb (also known as a sentence connector) or a dependent clause marker:

a) if ________	g) although ________
b) nevertheless ________	h) in that case ________
c) when ________	i) because ________
d) before ________	j) after that ________
e) therefore ________	k) in addition ________
f) that ________	l) at that moment ________

5. Draw a line through all the modifying words and phrases in the following paragraph taken from *The Journal of Clinical Psychology*. The first sentence has been done for you as a model:

> ~~Type A~~ behaviour remains the ~~only behaviourally defined~~ risk factor ~~for CHD [coronary heart disease](Review Panel, 1981)~~. Although its status is now controversial, the majority of prospective epidemiological studies in healthy subjects show TAB [Type A behaviour] independently to predict CHD; it is generally methodologically weaker studies of re-infarction and correlational studies of TAB and degree of atherosclerosis as determined by angiography that have provided conflicting evidence (Haynes & Mathews, 1988). Nevertheless, future research will probably focus on hostility and anger as major precursors of heart disease, and allocate a less central role to other component behaviours such as time urgency and competitiveness (Bennett & Carroll, 1989; Williams & Barefoot, 1988).

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EAP FOR THE HUMANITIES

Michael Linden-Martin

The EAP program at the California Institute of Technology in Pasadena began as a result of an increase in the number of foreign students who were experiencing difficulties in passing their freshman humanities course requirements. Many of the humanities faculty expressed their desire for more than a band-aid solution to the problem. Once the need was defined, the solution was to begin the first ESL program that dealt specifically with the problem of helping students to master the skills necessary to pass their humanities requirements.

RELATION TO ESP

How does this program fit into the scope of ESP? According to Strevens (1978), ESP entails the provision of English language instruction (1) devised to meet the learner's particular needs; (2) related in themes and topics to designated occupations or areas of study; (3) selective (i e, "not general") as to language content; (4) when indicated, restricted to the language skills included. (p. 4)

The Cal Tech program consists of two classes, ESL 1a and 1b, which differ only in proficiency level. The ESL 1a class simulates the format of typical freshman humanities classes, the majority of which require written essays totaling about 4,000 words per 11-week session. These essays reflect the students' interpretation, synthesis, or summary of readings from either literature or social science, depending on the focus of the humanities class. Although each humanities instructor may have individual requirements as to the essay format, the most common form of organization and rhetorical development is argumentation or analysis. The ESL instructors incorporated the above ideas, as well as other suggestions from the Humanities Department, into the ESL 1a and 1b classes. These classes follow Strevens' model in that they are designed to meet the students' needs by strengthening their writing skills and increasing their proficiency in vocabulary usage and grammar so that they can participate in and pass their humanities classes. A detailed description of the 1a class will serve to show the ESP nature of the project.

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DESCRIPTION OF THE CLASS

The 1a class is divided into two topic areas, each of which lasts approximately five weeks. The topics usually depend on student interest and the humanities classes that they will take in the future. Most tend toward literature and social science. In both the literature and the social science sections, each reading relates to the others on different levels. One level is theme; others include style of presentation, historical and sociological significance, and literary analysis. The social science readings differ slightly in that there is a greater emphasis on the use of argumentation and analysis.

The readings for the literature segment are ironic or satirical short stories, such as Camus's "The Guest" and Jackson's "The Lottery." The transition from the literature to the social science section is achieved in the following manner: Jonathan Swift's "A Modest Proposal" is analyzed for its literary content, the historical and sociological events of the time, and Swift's use of satire as a means of persuasion or argumentation. Gore Vidal's essay, "Drugs," is then used to bridge the gap to texts with a social science orientation. Vidal's essay, although similar in intent and style to Swift's "A Modest Proposal," has a greater emphasis on the use of formal argumentation, and discussion centers on finding solutions to a recurrent problem in society rather than on a literary analysis.

Each reading is used to illustrate a particular aspect of the writing process, with successive texts adding a new dimension and incorporating content or skills covered in prior readings. The connecting thread among the readings in both the segments is the theme of the individual and his or her relationship to society or the environment. The articles in the social science segment begin with an individual in an isolated condition, such as in the Vidal article, and move on to studies of more complex societies such as that of Polynesians adapting to the encroachment of the technological world. The students demonstrate their understanding and interpretation of content in various ways; however, writing activities account for the major focus of skills development because this is the principal means of determining grades in the humanities classes. Reading skills as well as class discussion skills are incorporated to a lesser degree depending on the needs of the students who enroll.

From the outset, the goal of the two ESL classes has been to present the students with a modified sampling of what they can expect in terms of both the reading load and content as well as the writing skills required to meet the established criteria of the Humanities Department.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The quotation from Strevens (1978) that is used to justify the EAP course described contains the statement "ESP entails the provision of language instruction...related in themes and topics to designated occupations or areas of study." Discuss what is meant by the term *related*, which has many possible interpretations. The quotation also contains the statement "ESP entails the provision of language instruction...selective (i e, "not general") as to language content" and "restricted to the language skills included." What are the advantages and disadvantages of being selective as to language content and skills in the ESP class?
2. The author states that the topics "usually depend on student interest and the humanities classes that they will take in the future." How can such a class be planned prior to the first day of instruction, especially when each reading "is used to illustrate a particular aspect of the writing process, with successive texts adding a new dimension and incorporating content or skills covered in prior readings?" What are the advantages and disadvantages of allowing this kind of student input?
3. The author states that the Swift and Vidal texts are analyzed and bridges between them gapped. Discuss specific means of implementing these broad statements. What does it mean to analyze a work for literary content and the use of satire? What would you do in the classroom to accomplish this goal?
4. What is meant by "reading skills?" How would you specifically teach this skill in your EAP class?
5. The author states that "each reading is used to illustrate a particular aspect of the writing process." What are the aspects of the writing process and how might readings be used to illustrate them?
6. The author states that the goal of this class is "to present the students with a modified sampling of what they can expect in terms of both the reading load and content as well as the writing skills required to meet the established criteria of the Humanities Department." This article was written in 1985, prior to the publication of Hutchinson & Waters (1987), which advocated a "learning" approach to ESP and said, "We cannot simply assume that describing and exemplifying what people do with language will enable someone to learn it" (p. 14). Discuss

this notion in light of the article. What might you have done differently to help prepare students for their humanities classes?

Activities

1. Label the following list of topics as suitable for argumentation (AR), analysis (AN), or both:
   a. _____ causes of AIDS
   b. _____ the use of nuclear power
   c. _____ the right to commit suicide
   d. _____ the use of animals for medical research
   e. _____ the development of fusion technology
   f. _____ the presence of garbage in outer space
   g. _____ the use of biological warfare
   h. _____ the effect of politics on art
   i. _____ education for everyone
   j. _____ political campaign funding

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ADJUNCT LANGUAGE INSTRUCTION: AN EAP FRAMEWORK

Ann Snow and Donna Brinton

The adjunct model of language instruction is a cross-curricular instructional program designed to meet the linguistic and academic needs of university students. In this model, students are enrolled concurrently in two linked courses—a language course (e.g., Intermediate ESL) and a content course (e.g., Introductory Psychology)(Snow & Brinton 1984; Sutton 1978). The rationale underlying the model is that the two courses share a content base and complement each other in terms of mutually-coordinated assignments (Wesche 1985). An important feature of the model is the integration of nonnative speakers with native speakers in the content course to insure the authenticity of the academic demands placed upon the students (Peterson 1986). Equally important, however, is the "sheltering" of non-native speakers in the ESL component of the model. In this way, the particular language needs of second language learners, such as persistent grammar and writing error patterns, can be addressed directly.

One example of an adjunct model program is the Freshman Summer Program at UCLA, a seven-week intensive preparatory program established in 1977 to bridge the gap between high school and college. Every summer at UCLA, entering students, both native and nonnative English speakers who have been identified as "high risk" in the admissions process are invited to participate. In the view of the UCLA administration, these students have been inadequately prepared in their high school education for the academic rigors of the university environment, particularly with respect to their reading, writing, and study skills. As such, their potential for academic success is considered to be very tenuous.

In the academic component of the UCLA program, students select one of six content courses which are linked to a corresponding language course. The content courses offered are introductory courses which undergraduates typically take to fulfill their general education requirements at UCLA. Students attend 12 hours of language classes weekly; the combined lecture/discussion section format of the content course comprises approximately eight contact hours per week. The link between courses is achieved through a mutual focus on rhetorical modes which are representative of the academic language demands placed on students at the university (Rose 1980).

Typically, the first mode selected is definition since in most content

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courses the first lectures and readings concern definitions of the field. In an ESL class linked to Introductory Psychology, for example, the students would work intensively on writing sentence level definitions of basic psychological terms, would complete reading guides on the relevant chapters of the psychology text, and would be prepared in the ESL class to write more extended definitions in anticipation of a midterm exam question in psychology such as "Define psychology in relation to its various fields of specialization."

Specific instruction on grammar-related topics is incorporated into the overall organizing principle of rhetorical modes. Thus, under the rubric of definition, grammar instruction might focus on the use of indefinite and definite articles and on restrictive relative clause constructions. Finally, English instructors would monitor students' notes from the content course lecture and might prepare information gap exercises to help students differentiate essential information from non-essential information.

In addition to the academic component of the summer program, students are also provided with academic and personal counseling to help them build positive self-images and to insure their successful personal adjustment to university life. Students receive assistance in planning their long-range course of study and in enrolling for courses in the fall quarter.

The adjunct model of language instruction provides an ideal framework for an English for academic purposes setting. With the focus in the language class on essential modes of academic writing, academic reading, study skill development, and treatment of persistent structural errors, students are being prepared to transfer these skills to their content courses. The activities of the content-based language class are geared to stimulate students to think and learn in the target language by requiring them to synthesize information from the content-area lectures and readings. These materials provide content for students to discuss and write about, thus providing an authentic context for integrating the four traditional language skills.

An underlying assumption in this pedagogical framework is that student motivation in the language class will increase in direct proportion to the relevance of its activities, and, in turn, student success in the content course will reflect the carefully coordinated efforts of this team approach. Furthermore, the adjunct model offers ESL students a critical, but often neglected, option. It gives them access to native speaker interaction and the authentic, unsimplified language of academic texts and lectures in the content course, yet enables them to benefit from ESL instruction where their particular language needs can be met.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss how mutually coordinated assignments between the two instructors might be agreed upon. Can you foresee any difficulties with this process?
2. The authors state that their students were "inadequately prepared in their high school education for the academic rigors of the university environment." Should it be the responsibility of high schools to prepare students for college and university work? What about the students who do not plan to study for a higher degree? What are the beliefs and practices in your home country?
3. Six content courses linked to a corresponding language course is a large number that many colleges and universities might not be able to afford. If you had to limit the selection to two such courses, what would they be?
4. Using your own experience, discuss what you and the members of your group consider to be necessary aspects of academic and personal counseling for university students. Is it possible to receive too much counseling? What are the beliefs and practices in your home country?
5. The authors state that "students are being prepared to transfer these skills to their content courses." Discuss the notion of transfer of skills. Do you believe that such skills (modes of academic writing, academic reading, study skill development, and

treatment of persistent structural errors) can be transferred? Are some skills more transferable than others?

6. The authors state "an underlying assumption in this pedagogical framework is that student motivation in the language class will increase in direct proportion to the relevance of its activities, and, in turn, student success in the content course will reflect the carefully coordinated efforts of this team approach." Discuss the two parts of this assumption. Are they reasonable? Do any of the members of your group have any experiences that might challenge either of these parts?
7. The adjunct model described provides "access to native speaker interaction," implying that the content class includes both native and nonnative speakers of English while the language class includes only nonnative speakers. Discuss the implications of this model. For example, is it fair to provide additional language help only for the nonnative speakers in the classroom? Should all nonnative speakers be required to take the language class, even if they would rather not take it? What would you think of an adjunct class in which both the content and the language class included only nonnative speakers?

Activities

1. A sentence-level definition typically consists of three elements; a) the term defined; b) the group or category to which it belongs; and c) the description of a characteristic that distinguishes it from other members of this group or category. An example of such a definition, also known as a formal definition, is the following:

   A thermometer (a) is an instrument (b) that measures temperature (c).

   Ask each member of your group to provide a term from a field they are familiar with, and create a formal definition for each term.

2. An extended (or amplified) definition is a formal definition that has been clarified by means of one or more of the following amplification techniques (Master 1986). Choose one of the definitions from the previous activity and decide which three amplification techniques would be most appropriate for it.

Amplification Techniques

1. Further definition: Explain other words used in the formal definition of the item being defined
2. Concrete examples and instances: Provide examples and instances of the item being defined
3. Description of parts and components: Describe the parts and/or components
4. Basic operating principle: Describe the basic operating principle
5. Purpose or method of use: Describe the purpose or method of use
6. Cause and effect: Describe the causes or effects of the item being defined
7. Word derivation: Show the derivation of the item being defined
8. Location and time: Describe where or when the item being defined is used
9. Negative statement: State what the item being defined is not
10. Comparison and contrast: Compare/contrast the item being defined to other similar items

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CONTENT-BASED INSTRUCTION FOR RESIDENT COLLEGE-LEVEL ESL STUDENTS

Peter Master

The English Institute at Cañada College in California created an experimental content-based adjunct program designed primarily for resident ESL students. The content areas included the social sciences, western civilization, the natural and physical sciences, and mathematics, each of which had an adjunct ESL component. The students were initially required to take the whole series of courses, including a college study skills class, and a counselor worked with the students to help with personal problems during the program.

PREPARATION

Before the program began, a two-day workshop focusing on content-based instruction and the adjunct model was provided for the instructors involved in the program. After a discussion of the potential problems that might arise in such a program from both the content-instructor and the ESL-instructor point of view, one of the content instructors volunteered to give a typical lecture. All the instructors then discussed how they could help their students deal with this kind of oral presentation. The content instructors later paired up with their corresponding adjunct ESL instructors to discuss how they would structure their courses in light of suggestions provided in *ESL Through Content-Area Instruction* (Crandall (Ed.), 1987). This discussion among the participants became the cornerstone of the program. Having worked with sometimes uncooperative content instructors before, the facilitators were impressed with the commitment of these particular content instructors to the success of the program. The ESL instructors were entirely committed as well, but this was expected. We know how committed ESL instructors are.

The instructors met two more times before the first day of instruction and then again after two weeks, four weeks, eight weeks, and at the end of the program. The facilitators were present individually at the second and fourth week meetings, and together at the final meeting. During the fourth week meeting, it was obvious that requiring the students to take all five courses was too much of a burden on the

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students. A different system in which students were allowed to select three to five of the courses in the program was therefore implemented for the next semester.

It became apparent in these meetings that the content instructors and the ESL instructors were adjusting themselves to each other quite well, and by the end of the twelve-week program, the content instructors had nothing but praise for the ESL instructors, reporting that they had learned a great deal about teaching by watching how their ESL adjunct counterparts operated. Several of the students in the program were present at this meeting, and they too had nothing but praise for their teachers and the program itself. They all wished they had had more time in their busy lives to devote to this series of courses.

RESULTS

One would expect that the students might praise their teachers in their presence, but what was particularly impressive about these students was the confidence with which they addressed the assembled group. It was this very language proficiency that we had all desired to instill in the students in the program. Furthermore, the Michigan Test of English Language Proficiency was administered before and after the program, and the final scores showed a gain of 9%. These scores were high enough to allow all the participating students into English 800, which is required for the two-year Associate of Arts (AA) degree at Cañada College.

In order to have an objective measure of the effect of the content instruction, the four content instructors administered pre- and post-tests in their respective classes. In the social sciences, students showed gains averaging 24% between pre- and post-test. In western civilization, they increased 18%. In the natural and physical sciences, they increased 25%. In mathematics, they increased 11%. In the study skills class, students increased 16% on a study skills test, and effective reading rate (words per minute read and comprehended) increased by 70 words/minute. Finally, a student survey of study skill behaviors was administered before and after the program, the results of which showed that students were much more likely after the program to circle "often" or "always" on certain study skills than had been the case at the outset.

Since the original motivation for this program was to increase the retention rates of at-risk students, the mathematics content instructor also compared the completion rates of his adjunct course with the two other mathematics classes he taught at the same time. The completion rate for the adjunct course was 86%, compared to 79% and 52% for the two other courses. It would have been 100% if one

of the students had not had to leave for personal reasons (that student was present at the final meeting to explain this).

Several of the students said that they had lost their fear of content classes through this program. One planned to take a higher level math course the next semester. Another had changed her major to biology. All claimed that their language skills and overall self-confidence had improved significantly from the experience. And all said they would recommend it to their friends and colleagues. One even suggested that it be made available to the highest-level ESL class in the English Institute. The proof of the veracity of this new-found self-confidence is that all the students that took the program are taking regular classes this semester.

The apparent success of this pilot program speaks to the effectiveness of both content-based instruction and the adjunct (or team teaching) model. It also demonstrates how the principles of EAP (English for Academic Purposes) instruction are perfectly reflected in the content-based approach, which relies on needs analysis (student, institutional, and professional), authentic materials, and the communicative approach to language teaching in addressing the language needs of nonnative-English-speaking students in public education.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What is meant by an adjunct program or component?
2. How was a constructive relationship established between the content and the language instructors?
3. One of the hallmarks of an ESP class is curricular flexibility within the constraints of the educational system. In what way did this program exhibit such flexibility? What do you think were the constraints?
4. What is the quantitative (numerical or "objective") evidence that this program was successful?
5. What is the qualitative (descriptive or "subjective") evidence that this program was successful?

Activities

1. Discuss how you would implement the following comments and suggestions for science content instructors from Crandall, et al. (1987, pp. 57-69) in an EAP class.

   a. dependence on textbooks (in preference to hands-on investigation) seriously constrains language development
   b. new terminology requires presentation in science contexts, not in lists of isolated items
   c. students should be physically engaged in hands-on activities, talking about concepts as they do so
   d. science teachers must be aware that cultural differences may frame the view of the world differently
   e. use graphics, definitions of terms, simple syntactic structures, and explicit and easy-to-understand instructions for carrying out investigations
   f. new vocabulary should be introduced with a bold-faced definition or a visual
   g. negative experiences inhibit language development
   h. correction should be focused on truth value in terms of accuracy, interpretation, analysis, creativity and evaluation, not on language accuracy
   i. teacher conferencing is best for the correction of writing problems
   j. peer tutoring (limited English proficient (LEP) with a non-LEP student) increases vocabulary acquisition

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ESP AND THE HUMAN SCIENCES

Diane Belcher

Traditionally, ESP practitioners and discourse community researchers have focused on the genre conventions and socialization practices of the sci-tech fields most popular among NNS college students. But the recent increase in NNS human science majors, i.e., in the social sciences, education, and the humanities, suggests that it is time we turned our attention to the challenges that face NNS newcomers to the culture of the "soft" sciences (Zikopoulos, 1991).

SHIFTING PARADIGMS

Perhap the most serious challenge that faces any new student in the human sciences has to do with the multiple, shifting, and even deliberately undefined paradigms in these fields. In the social sciences and education, students are confronted with a paradigmatic "diaspora" that includes not only behaviourist and experimental approaches evident in the standardized four-part primary research report, but also more literary interpretations of data resulting from phenomenological and hermeneutical approaches, and even openly ideological accounts of social reality inspired by feminist, Freirean and other perspectives (Lather, 1992). Not only do individual fields contain subfields that range from scientific to humanistic paradigms (e.g., in anthropology, physical and cultural anthropology), but within many subfields (perhaps every subfield in education), there are heated debates over the efficacy and even legitimacy of quantitative versus qualitative, or empirical versus interpretivist, approaches to the same research topics. In the humanities, the situation may be still more bewildering, for these fields can even be seen as non-paradigmatic. Bazerman (1988) has noted that the main goal in one of the humanities, literature, appears to be simply to display the individual reader's unique sensibility. Yet the type of sensibility appreciated in a literature class may have much to do with whether the teacher is a deconstructionist, neo-historicist, or traditional New Critic. For any student, L1 or L2, the array of possibilities and the realization that teacher expectations can vary wildly can be daunting. But for the L2 student who may be from a culture with a more homogeneous approach to social and esthetic issues than is commonly found in

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American academia, the situation could be much more disturbing (see Ballard & Clanchy, 1991).

PERSONAL PERSUASION

Another formidable challenge for all novices in the human sciences is the need for writers in these fields to be personally persuasive, given the instability of their rhetorical universe (Bazerman, 1988), that is, the limited consensus on valued topics and what counts as evidence among readers in the human sciences. For NNS students in these fields, it may be difficult to be persuasive, or, as Pindi and Skelton (1987) have pointed out, to appear logical or even intelligent, if their control of the lexis is minimal. Human science lexis may prove much more challenging to NNS students than sci-tech terminology, which, as Casanave and Hubbard (1992) note, is more stable, less geographically variable and may have been originally learned in English by the L2 student. In addition, fields such as literature, philosophy, and some social sciences prefer an unusually complex, opaque style of writing, with unwieldy T-units (in some articles averaging 40 words or more), frequent nominalizations, and much coined terminology (McDonald, 1990). Such a prose style may not just be beyond what NNSs can produce as writers; it may severely strain their processing ability as readers. And unfortunately, Casanave and Hubbard (1992) have found that human science writing assignments tend to be text-based more often than those in sci-tech classes and to demand not just summarization but critical analysis, a skill which may be especially difficult to master for L2 students from cultures with a more "conserving" attitude to knowledge (Ballard & Clanchy, 1991).

LESS COLLABORATION

It would seem that content-area instructors would be in the best position to help new students cope with the heavy cognitive, rhetorical, and linguistic demands placed on them in the human sciences. But, perhaps because unique perspectives are so valued in the human sciences and may be thought better fostered by independent work, it is in the hard sciences, where collaboration is the norm, that more guidance is likely to be provided for students' socialization in their fields. Especially at the graduate level, sci-tech students often work in labs with a research group, where they address topics defined by the project head, routinely discuss findings with the group, and collaboratively write up their results. Students in the sci-tech research community are thus less likely than those in the human sciences to face the task of meaning-making alone.

PEDAGOGICAL IMPLICATIONS

What can we do to help students in the human sciences? Johns' (1990) ethnographic approach, teaching students to keep "academic journalogs" that focus their attention on the topics dealt with in various classes and the demands that specific assignments make on them should help. Sternglass and Pugh (1986) have found that students who write retrospective accounts of their experience with various assignments become conscious of the strategies that work, the steps they took that led to valuable insights. But what may be equally as beneficial for students in the human sciences as in any academic survival strategies is for the teacher who works with NNS students in these fields to assure them that the struggle to see the world from the multiple perspectives of the human sciences has its own rewards. What can be gained, as Min-zhan Lu (1992) has observed of her own and others' efforts to cope with conflicting points of view, is a greater tolerance of difference—a useful quality for those in the human sciences.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the author's statement that in the social sciences "students are confronted with a paradigmatic 'diaspora'." What is a 'diaspora'? How does this term apply to the point that the author is making?
2. Why might the lexis (vocabulary) of human science be more challenging for NNS students than sci-tech terminology?
3. What is meant by having "a more 'conserving' attitude to knowledge"? If your students come from such a culture, ask them to give their sense of what this means. Try to frame the question in a readily interpretable way for the student.
4. Why is more guidance provided in the hard sciences than in the human sciences?
5. What can be done to help NNS human science students to succeed in the university?

Activities

1. Using a university catalog or brochure, make as complete a list as possible of the "soft" (human) sciences and a list of the hard sciences. Which has the greater number? In your local university, which type of science (hard or "soft") are students most likely to study?
2. Academic writing as exhibited in this article contains much more subordination than coordination. One way of describing the use of these elements is with the T-unit (from terminable unit). A T-unit is a minimal unit consisting of one independent clause and any dependent clauses connected to it. For example, the opening paragraph of this article contains two T-units shown in brackets below (the dependent clauses have been underlined; the double underline shows a dependent clause within another dependent clause):

   [Traditionally, ESP practitioners and discourse community researchers have focused on the genre conventions and socializa-

tion practices of the sci-tech fields most popular among NNS college students.] [But the recent increase in NNS human science majors, i.e., in the social sciences, education, and the humanities, suggests that it is time we turned our attention to the challenges that face NNS newcomers to the culture of the "soft" sciences (Zikopoulos, 1991).]

Calculate the number of T-units in the article you have just read.

3. A nominalization is the conversion of a clause into a noun phrase. For example, in the first paragraph of this article, the noun phrase *the genre conventions and socialization practices of the sci-tech fields most popular among NNS college students* is a nominalization of the clause *The sci-tech fields which are most popular among NNS college students have genre conventions and socialization practices.*

   a. Identify the clauses underlying the following nominalizations:

      a. *subfields that range from scientific to humanistic paradigms*
      b. *the individual reader's unique sensibility*
      c. *the L2 student who may be from a culture with a more homogeneous approach to social and esthetic issues than is commonly found in American academia*

   b. Find three other nominalizations in the article and show their underlying clauses.

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ENGLISH FOR THE ARTS

EA

EA

ENGLISH FOR ART AND DESIGN

Kate Griffeath and Stacy Southwick

The English for Art program (EAP) at the Academy of Art College in San Francisco, California enables students to study art and design while simultaneously studying English. In their first semester, Academy students with limited English proficiency enroll in ESL-designated art and design classes with their native-speaking counterparts. These classes are taught by professional artists and designers and supported by an ESL teacher. The ESL students study in core EAP language instruction courses, four levels for undergraduates and three levels for graduate students, which are linked in content to their art and design courses, which they take concurrently.

The practice of immediately immersing limited English proficiency students in mainstream classes is unusual, carrying with it important implications for both ESL and content teachers in California, where the percentage of nonnative English speakers in classrooms increases yearly. For ESL students, being enrolled in content classes can be a great advantage as they get real world experience, completing tasks of interest and relevance to their lives, while interacting with native speakers. We have found that a collaborative effort between ESL and art teachers, and sometimes even native-speaking students, about the issues surrounding limited English proficiency students has been beneficial and rewarding. We help them to be successful in content classes by working together, a practice which is contrary to the national system, in which interdepartmental communication is often negligible.

Most public institutions do not have the finances to permit ESL teachers to sit in content classes with ESL students as has been the case at the Academy. However, it is important to recognize that the EAP's strength as a department comes not from our presence in every art class with an ESL student, but from our high accessibility to content instructors and administrators who need our assistance and our open lines of communication. Our procedures and programs are inexpensive solutions to repeated patterns of language needs.

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FACULTY ORIENTATION

At the beginning of each semester, the EAP distributes a packet to all art and design instructors introducing our program, teachers, students and support services, and explaining how they can get English help for their students. We also have faculty orientations for each department with teaching suggestions for working with ESL students. We suggest, for example, that they:

- write all assignments on the board or on handouts
- pause longer than they normally would when speaking to a native-born student
- give outlines and handouts ahead of time, if appropriate, to help students become familiar with the material
- allow students to work in pairs and small groups and avoid relying solely on large-group discussion.

In our core EAP classes, we go beyond basic language instruction and teach our students skills to help them be successful, independent learners. We teach them skills for surviving in mainstream classes, for example:

- to carefully research instructors, learning whether or not they have had experience with nonnative speakers, before registering for classes
- to learn about college support programs (e.g., the writing lab, tutoring center, multimedia language lab, conversation partner program)
- to create peer support systems and study groups in classes.

TEACHER'S ROLE

One of the EAP teacher's unique roles in our program is that of a roving consultant. Through our mentoring program, these teachers respond to art teachers who believe a language problem exists in their classes. Sitting in hundreds of mainstream classes has taught us that problems in content classes often lie beyond language. In many cases, we act as interpreters when cultural differences cause art teachers to panic when they lecture to a sea of apparently blank faces, for example, and believe that no one understands. In reality, the teachers and students are operating under new definitions of classroom conduct. For example, we were once contacted about "a student who does not speak any English." After rushing into the class to assess the best way to help him, we discovered that the student was actually an extremely shy native speaker with no computer background.

CHALLENGE

Despite a standard syllabus for each art and design course, no two classes are ever the same. The *what* is the same; the *how* is as unique as the individual art instructor's idiosyncrasies. Naturally, the art and design instructors, all working professionals in their fields, bring a breadth of real world knowledge and experience to their classrooms; however, since many are not trained teachers, they sometimes use teaching methods with which our students are not familiar.

In art content classes, as in any form of English for Specific Purposes, one of the greatest advantages is the language spoken during the class, which, even for the lowest English proficiency students, is an abundance of linguistic input supported by visual and other nonlinguistic information. Because art and design courses often require hands-on learning, instructors demonstrate how to use tools and apply techniques, which the students then try to master. In this environment, working professionals literally bring the real world to class. In many cases, the classrooms become studios: the instructors are clients; the students are designers; the assignments are work orders; the due dates are deadlines. ESL students do not have to understand every word or even communicate to actively participate in these visually oriented art classes.

There is no formula as to how to ultimately support an art class student and teacher. After most art classes, which are three to six hours per week, EAP teachers conduct the linguistic aspect of the class by decontextualizing lectures, reinforcing syntactic structures, building vocabulary, and answering questions about the day's lesson or homework. Methods and approaches vary as much as the people involved. Sometimes a project or activity will require the use of a certain syntactic structure. For example, during critiques of their work, students must stand and present their work, a task difficult in any language. An EAP teacher might help students prepare for this experience by predicting questions that the art instructor or other students might ask, such as, "If you could redo the project, what would you do differently?" or "If the background were blue, how would the mood of the piece change?" These are perfect opportunities to introduce and teach the grammar of conditional clauses.

Communication and flexibility are our most valuable tools. One variable we must consider is that EAP teachers sometimes do not have sufficient content knowledge to support the highly technical subject matter in advanced computers, photography, or film classes. If an art instructor requests help for students in one of these areas, we arrange for special tutoring with lab assistants, college work study students, or mentors (advanced English language art students). Our experience has shown that the art class and its teacher, as well as the

ESL student's personality and language proficiency, all play important roles in determining the best way to provide language support.

REAL WORLD

Teachers are increasingly being faced with issues concerning limited English proficiency students in mainstream classrooms. Traditional pullout programs in public school often do not address many students' needs, and students continue to enter classes without the real life experience necessary for success. Often they find instructors who concentrate on the native-speaking majority without providing the necessary training or time to make the subject matter comprehensible to them. The question we must ask ourselves is how we as ESL professionals can adequately structure our ESL programs to prepare students for the real world. How can we truly teach them what they need to know when we are not in communication with instructors in other departments? We have found that combining language, content, and interdepartmental communication has been beneficial to all involved.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the practice of immersing limited English proficiency students in mainstream classes from the beginning. The authors cite some advantages, such as interacting with native speakers. What do you think might be the disadvantages of such a practice? Is it appropriate to offer all forms of ESP at low proficiency levels?
2. Simultaneous instruction from a content and a language teacher is known as the adjunct (or team teaching) model. What are the advantages of such a model? What kinds of difficulties might arise in this arrangement?
3. Discuss the notion of teaching students to be "successful, independent learners." Were you encouraged to be successful and independent in your own educational experience? Do you agree that this is the role of an ESP teacher? In what other ways could a teacher help students to be successful and independent?
4. What do the authors mean by "new definitions of classroom conduct"? Describe some of the cultural differences between what you have experienced in your country as compared to the U.S. Is it important for an ESP teacher to be aware of such differences? Why?

5. Critics of ESP sometimes raise the following question: Would you rather fly in a plane whose pilot has been taught by a subject expert or one who has been taught by an ESP instructor? Yet the authors of this article state that the EAP teachers "sometimes do not have sufficient content knowledge to support the highly technical subject matter." Discuss this apparent conflict.

Activities

1. Grammar texts usually describe three forms of the conditional: the present real, the present unreal (or hypothetical), and the past unreal (or hypothetical). Examples are provided below:

   Present Real: If it rains, I will take an umbrella.
   Present Unreal: If it rained, I would take an umbrella
   Past Unreal: If it had rained, I would have taken an umbrella.

   To which category do the sentences used in this article belong? How would you transform these sentences into the other two forms of the conditional?

2. The authors list four teaching suggestions for working with ESL students:

   - write all assignments on the board or on handouts
   - pause longer than you normally would when speaking to a native-born student
   - give outlines and handouts ahead of time, if appropriate, to help students become familiar with the material
   - allow students to work in pairs and small groups and avoid relying solely on large-group discussion

Discuss each suggestion. Do you think these are appropriate for EFL students? Provide three other suggestions from your own educational experience.

3. The authors suggest the following to help students survive in mainstream classes:

   - carefully research instructors, learning whether or not they have had experience with nonnative speakers, before registering for classes
   - learn about college support programs (e.g., the writing lab, tutoring center, multimedia language lab, conversation partner program)

- create peer support systems and study groups in classes.

Identify three other suggestions that you believe would help your students in such a situation.

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EA

AN ESL PROGRAM FOR MUSIC STUDENTS

Jean Chandler

At the New England Conservatory of Music, about one third of all students are international. Although the only admission criterion is music ability, most of the students have been well-educated in their own countries (primarily Korea, Japan, and Taiwan), and they are disciplined, hard-working and able to make good progress in English. (It is my hypothesis, which I plan to test with a research project, that because they are musicians, they also have good ears and relatively good English pronunciation for their proficiency level and native language background.)

Courses in liberal arts, including a year-long humanities core-course and a semester of English composition, music history, as well as music theory, studio lessons, and so on, are required of all students for a bachelor of music degree. Music history is required of all master's degree candidates. Diplomas are offered which do not require these language-intensive courses, but the vast majority of international students want a degree.

In order to take music history courses, students must either score 540 or above on the TOEFL or complete our ESL 1 course with a grade of B or better. In order to take liberal arts courses, undergraduates must pass the writing exam and either score 575 or above on the TOEFL or complete ESL 2 with a grade of B or better.

ADAPTING THE ESL CURRICULUM TO THE NEEDS OF THE POPULATION

Since most of our students have learned English in their country by the reading-translation method and have not studied in the U.S. before, the first semester ESL course focuses on listening and speaking, with an emphasis on pragmatics. We do a lot of pair work for practice in speaking and refuse to correct errors unless they interfere with communication. We also pay English-speaking peers to meet with small groups of international students for an additional hour a week of conversation about music and other topics of mutual interest.

Non-ESL teachers complain that international students are reluctant to speak in class, even to ask questions. One way we teach students the value of asking questions is by giving them regular opportunities to ask questions on readings or lectures before giving them quizzes on the material. In ESL 2, we play oral simulation games to prepare students for the assertiveness needed to participate in classes with native speakers.

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A questionnaire on language-learning background, strategies, and preferences, completed by all 116 incoming international students one year, revealed that vocabulary is considered the most difficult aspect of English and that rote methods are the only ones employed by most students. This led to the development of a new one-semester course for students at the ESL 1 level in which four methods for remembering word meanings are taught and practiced on words needed for reading and writing about seven short stories. For example, from Amy Tan's story "Two Kinds," which is about her music lessons, students learn the word *cascade* by seeing a picture of a waterfall, the word *curtsy* by doing the action, the word *discordant* by associating it with a musical example, and the word *lilting* by using it in a sentence.

In both listening and reading, our students are good at remembering details but have more difficulty with the main ideas. Therefore, we teach them to skim for text structure and to outline ideas in readings or lectures. In both reading and writing, they tend to do word-for-word translation. To promote fluency, we require large amounts of reading and writing. For example, in ESL 2 students are asked to write multiple drafts of a 25-page autobiography in addition to reading and writing a review of a published autobiography. Over the semester they are able to cut in half the time required to write an assignment, which allows them more time for practicing their musical instrument. Second semester ESL 2 students read a chapter (about 20 pages) per class of a difficult biography of Mozart written in the 1930s by Marsha Davenport. There is simply not time to look up all the words they don't know, so they get a lot of practice trying to guess the meaning from context. Most importantly, since they are required to summarize the main events in Mozart's life from that chapter, they learn to monitor their own comprehension, looking up word meanings when they are important to overall meaning and asking questions in class.

One of the advantages to having all musicians in a class is that they have similar interests. They are thus willing to work hard to understand this biography of Mozart, which lends itself to discussion of cultural aspects of the musical world of 18th-century Europe and helps them understand music history classes. For example, one student wrote that Mozart was competing with another composer. When I asked her where she got that idea, she pointed to the sentence, "Mozart was trying to finish his composition before Lent." This of course led to a discussion of Lent and other Christian traditions which may be important in understanding the mass or liturgical music.

This book also prepares students to read English that is not modern. In the humanities core courses, they have to read a Shakespearean play, for example. In addition, when they write summaries of the various chapters of Mozart, it is easy to ascertain if they are writing in their own words. The desire to quote the author leads to instruction in the proper use and documentation of source material. We have found that such instruction is important in avoiding plagiarism.

SUCCESS OF THE ESL PROGRAM

Over the last eight years, 188 students have gained an average of 55 points on the TOEFL in less than 200 hours of intensive English instruction. This is more than twice the gain reported for the same amount of instruction at San Francisco State (Robinett, 1977). Therefore, although we have no minimum TOEFL level for admission, almost three quarters of our students are able to go into ESL 1 at the end of one semester in intensive English.

When students who have taken ESL are compared with native speakers in terms of their grades in the required humanities core courses, the average for ESL students is only one step lower, i.e. B- rather than B or C+ rather than B-. I think this is evidence of the effectiveness of our ESL program and for the hard work of our music students.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the notion (which many EFL instructors have) that musical ability (having "good ears") makes language learning easier. Does anyone in your group know of someone with musical ability who was not a good language learner? Do you think that music has a place in the general ESL/EFL curriculum? If so, how can it best be used in the classroom?

2. What is the "TOEFL"? If anyone in your group has taken it, what scores did they receive? The author mentions scores of 540 and 570 or above as a prerequisite for liberal arts courses. From your

experience, what level of proficiency (low, intermediate, or high) do these scores suggest?

3. The "reading-translation" method is also known as the "grammar-translation" method. What are the characteristics of this method? Was this method of English language instruction used in your home country? What are the advantages and disadvantages of this method?
4. What is "pragmatics?" Why is it important in second language learning?
5. Discuss the author's statement that she and her colleagues "refuse to correct errors unless they interfere with communication." What are the advantages and disadvantages of such a policy? Do you agree with it?
6. Learning vocabulary by "rote methods" (memorizing lists of words and meanings) is a common practice in many areas of the world. How did the members of your group learn or increase their English vocabulary?
7. Discuss the practice of outlining ideas in readings or lectures. Which skill (listening, speaking, reading, and writing) is outlining usually associated with? What might be the value of outlining material that has already been presented?
8. "Plagiarism" (using material without giving due credit to the original author, e.g., copying words from a text) is considered a crime in some societies (particularly in Europe and the U.S., where a student can be dismissed from a class or even the university for committing it) but not in others. What are the attitudes towards plagiarism in your country? What is the best way to prepare your students for stricter attitudes towards plagiarism?

Activities

1. Make a list of topics about music that you might use in a small conversation group. How else might such topics be determined in an EFL classroom?
2. Another name for "oral simulation games," at least as the term is meant here, is role-playing. Role-plays are usually stimulated by giving each speaker a card on which a situation is described that only the speaker knows. For example, a role-play of a (rather dramatic) shopping situation might be the following:

   Speaker A (customer): You need to return a sweater to a department store because your husband (or wife) hates it; your relationship has been difficult for the last year and your spouse has been threatening divorce because you spend too much money.

Speaker B (clerk): You have been allowing too many goods to be returned without sufficient reason and your boss has warned you that you will lose your job if you do it again.

Create role-play cards for a student (Speaker A) and a professor (Speaker B) to provide practice with a) asking questions during a lecture, b) consulting a professor during office hours about an assignment that the student does not understand, or c) questioning a course grade.

3. Design a curriculum for an advanced EFL class in which a Shakespearean play is read. What specific steps would be required to enable international students to understand and appreciate such literature?

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ENGLISH FOR BUSINESS AND ECONOMICS

EBE

EBE

ENGLISH FOR BUSINESS

Carolyn Feuille

Among the current bywords in English language teaching, relevance stands out for its ever-increasing applicability to the demands of the profession. Some learners expect English language courses to be relevant to their academic, social, occupational, and personal needs and interests. Students of business English expect their courses to be relevant to their present or future jobs and their presence in English for Business and Economics (EBE) courses is often due not to an intrinsic interest in the language but to a desire to qualify for employment or promotion.

TRAINEES

Students of business English comprise two basic categories: present employees and future employees. The distinction is a very important one for course design and subsequent instruction as the experiences and language needs of EBE students tend to vary widely. Teaching business writing to a non-native supervisor, for example, is not the same as teaching the language of American management to a foreign MBA student. Non-native professionals tend to have more extensive job experience in an English-speaking environment and hence greater familiarity with the specific language of their occupation. They often have a better understanding of American cultural values and norms of corporate culture. Future employees generally have minimal living and working experience in the United States and thus often need instruction in technical jargon as well as general English.

Yet, regardless of whether one is training a group of Southeast Asian refugees in secretarial English for entry-level jobs or teaching a seminar on interpersonal communication to foreign managers, one must design the course according to the linguistic and cultural experience and the occupational needs of the trainees within the confines of the contracted objectives, hours, and (sometimes) employer expectations.

NEEDS ASSESSMENT

Prior to designing a course syllabus, it is important to identify which

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specific language and other communication skills (e. g., non-verbal) students have already acquired and which skills are needed on the job. In order to assess the students' language competence, it is usually advisable to administer second language diagnostic tests or devise one to meet the specific requirements of the business English course. It is also advisable to make a profile of each student with a brief questionnaire requesting such information as age, native language(s), previous training in English and dates, length of residence in the U.S., job title and job responsibilities, communication activities engaged in on the job (e.g., telephoning, meetings, writing memos) and self-assessment of listening, speaking, reading, and writing skills.

Sources of language requirements for a specific occupation include a) reference materials, e.g., textbooks, company correspondence and documents; b) informants such as business education and management instructors, supervisors, directors of training departments; and c) observation in classrooms and at the job site. Discovering precisely which language skills students are lacking in relation to expected job performance is not a simple task and can take several weeks to complete.

COURSE CONTENT

Business English courses often include practice in using the vocabulary of the students' future occupations. These students often lack an understanding of American business concepts and practices, so these ideas need to be introduced in their business English courses as well. Nonnative professionals, on the other hand, may only require more advanced business content such as concepts of participatory management or how to give an oral presentation.

What appears to be needed across the board by students of business English is improvement in basic communication skills within the corporate environment, particularly interpersonal communication skills, assertiveness, non-verbal communication, grammar, pronunciation, writing, and listening skills. Many instructors are realizing the need to teach interactive listening and speaking skills such as asking for clarification, confirming, focused repetition, giving feedback, and understanding reduced speech. To illustrate, communication is usually more successful when we ask a speaker to repeat not by saying, "Pardon me?" but by focusing on the particular aspect of the utterance that was not understood by asking, "What was that last part again?" or "What name did you say?" These listening skills become absolutely essential in telephoning, a vital means of business communication.

Finally, for many occupations, the ability to write effective business correspondence is required and can influence career advance-

ment. Aside from reducing the common errors of grammar, spelling, punctuation, and capitalization, some of the most salient characteristics of business writing that non-native professionals need to learn are how to 1) structure information, 2) use direct language in a linear rhetorical pattern, 3) express desired tones of social register and politeness, 4) clearly state the purpose for writing to the reader, and 5) write economically by avoiding redundancies, repetitious vocabulary, and overuse of the passive voice.

MATERIALS

The texts listed here have content and language activities relevant to the communication skills needed in business:

- *Business World*, R. Speegle and W. Giesecke (Oxford University Press, 1983)
- *Business Concepts for English Practice*, B. T. Dowling and M. McDougal (Newbury House, 1982)
- *Business Contacts*, N. Brieger, et al. (E. J. Arnold & Son, 1981)
- *Business in English*, J. Hacikyan & M. Gill (Regents, 1980)
- *English for Negotiating*, J. Brims (E. J. Arnold & Son, 1982)
- *Fluency Squares*, P. Knowles & R. Sasaki (Regents, 1981)
- *Mazes*, J. Farthing (Hart, Davis Educational, Ltd., 1981), and
- *TELE-VESL: Business Telephone Skills*, C. Feuille-Le Chevallier (Alemany Press, 1983).

The success of nonnative speakers of English in the world of business depends not only on improving their language competence but also on understanding and adapting to American corporate culture.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. There are two types of motivation: integrative and instrumental. Integrative motivation describes those learners who want to become a member of the second-language community. Instrumental motivation describes those learners who want to improve their own (usually professional) lives. Which kind of motivation does the author describe in the first paragraph?

Which kind of motivation did the members of your group have in learning their second or other languages? Which kind of motivation do you think is the most effective for language learning?

2. Make a T-diagram in which you list the characteristics of present business employees on the left and the characteristics of future business employees on the right. What skills would you focus on in an EBE class for each group? What would be similar in your teaching and what would be different?
3. This article was written in 1984 when the notion of needs analysis was not yet very developed. We now know that the ESP course designer needs to consider the needs of the job (including co-workers), the needs of the supervisor and/or boss, the needs of the field, profession, marketplace, or product, the needs of the institution, and the needs of the student in order to produce a successful ESP course. Which of the needs does the author of this article identify? What needs are not addressed? How would you go about determining these needs?
4. The author mentions giving feedback as an interactive listening and speaking skill. Describe several different ways in which you give feedback, both verbal (e.g., "Uh-huh") and nonverbal (e.g., eye contact), to show that you are listening to the person speaking to you. Are there cultural differences in the ways that such feedback is given?
5. What do you think the author means by using language in a linear rhetorical pattern? What other rhetorical patterns can you think of? Is all good writing "linear"?

Activities

1. Reduced speech is the deletion of certain consonants and the use of a limited set of vowels in spoken English. Read the following statements in a slow and careful way, and then say them as you would in rapid conversation. Note which words are reduced and how they are reduced.

   a. How did you get here?
   b. Why does he have to leave?
   c. I should have gotten directions ahead of time.
   d. And then she's going to try to go to New York.
   e. Why don't you ask if there is a later plane?

2. The author states, "Communication is usually more successful when we ask a speaker to repeat not by saying, "Pardon me?" but by focusing on the particular aspect of the utterance that was not understood by asking, "What was that last part again?"

or "What name did you say?" Another way to focus on a particular item that was not understood is by using WH-echo questions. A WH-echo question replaces the misunderstood item in a statement with a WH-pronoun and repeats the statement with rising intonation on the WH-pronoun. For example, if the statement was, "The factory is owned by Squigglefoot," a logical response would be, "Excuse me, the factory is owned by WHOM?" (with the intonation rising on *whom*).

Make WH-echo questions for the following statements in which the misunderstood item is indicated with XXXXX (from Master 1996). Be sure to address the person speaking (e.g., in # 1, *our* becomes *your*) and be sure to add a polite opening, such as "Excuse me" or "I'm sorry."

a. A XXXXXXX landed in our back yard.
b. My sister married XXXXXXXXX.
c. The surgeon removed the XXXXXX XXXXXXXXXX XXXXX.
d. We had to make an emergency landing in XXXXXXXXXXXX.
e. A movie ticket costs XXX XXXX.
f. I'll be in Europe for XXXXXXXXXXXX.
g. This is XXXXXXXXX's book.
h. I can't eat pasta because XXXXXXXXXXXXXXXXXXXXXXXXX.
i. XXXXX XXXXX are clogging the drain.
j. You can remove the stain by XXXXXXX XX XXXXX XXXXX.

3. Complete the following tasks in speaking to a) a close friend and b) your supervisor. Note what is different about the language you use (register) in the two situations.

a. Ask for a book
b. Complain about a fellow student/co-worker
c. Describe a new product (e.g., an office chair) you have seen

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NEGOTIATING YOUR WAY TO ENGLISH

Michael Pessah

The notion of using discussion to develop fluency and vocabulary in intermediate ESL students is not new (cf. Rookes, 1981). The use of negotiation in the EBE (English for Business and Economics) classroom simply carries this idea one step further. The technique requires proper preparation, but once launched, the situation develops its own momentum and requires only minimal teacher intervention. In the rubric of negotiation, students are constantly, but unconsciously, challenged to improve their communication skills in English.

To use negotiation as a learning tool, two basic elements are required: 1) an issue with two real sides to it, in which there is the possibility for rational people to disagree, and 2) enough background information so that the class understands the issues and how to make decisions about them. To illustrate the process, we shall assume a management/labor confrontation with the threat of a strike at the Combo Steel Plant about to take place if labor and management cannot decide on a new contract.

ACTIVITY

The students are prepared for the negotiations by first reading some contemporaneous material dealing with strikes. The issues and vocabulary are discussed and explained. Then the two sides of the negotiation are sketched out and the class divides into two groups: management and labor. In this case, the teacher will have prepared a simple scenario describing how the situation in which the two sides presently find themselves has developed at the Combo plant. At this point, the members of each side discuss their positions separately to decide on strategy and terms. Finally, two rows of chairs are drawn up facing each other and speakers on each side present their initial demands. From this point on, the teacher acts only as an unbiased arbitrator and source of facts, permitting the negotiations to go whither they will, even if they descend into haggling. If the issues and competitive emotions they engender are compelling enough, the students soon forget the classroom setting and begin using whatever English they have to triumph over the other side. The negotiation procedure then develops a life of its own and may not terminate for days.

As negotiations continue and an agreement is pieced together, the teacher acts as scribe, noting all points of agreement on the blackboard. This at once shows the progress the group is making,

From CATESOL News 1987

codifies what has been agreed upon, and highlights any obvious gaps in the agreement that may not have been properly addressed. Ultimately, an agreement is hammered out. Each group then signs and shakes hands. If, however, negotiations are in danger of reaching a deadlock, the teacher has two options: drop the issue, or attempt to facilitate other approaches that the groups may not have examined. If facilitation fails, it is best to move on, but I have found that a small show of interest by the teacher is sufficient to spur further discussion.

ADVANTAGES AND CAVEATS

Clearly, one of the main tasks of the EBE teacher is to promote the confident use of English as a means of direct expression of thought and emotion. The challenging give-and-take of a negotiation session causes the student to focus on charged content and successful communication above all else. Listening, verbal skills, and vocabulary are all stimulated, while assertiveness in group situations and the ability to compromise and see other points of view are also developed.

These skills are all essential in the American business world, but they are not gained without emotional and intellectual effort, which some students may be unwilling or unable to make. Some cultures are uncomfortable with the confrontational style of American negotiation, especially the women students. The best method I have found to ease quieter students into the negotiation procedure is to have an obvious leader from their side specifically ask for their point of view, thereby preventing these students from maintaining their uninvolved observer status.

The negotiation format need not be limited to business only. Ecological issues, social issues, conflicts over new laws, aspects of political policy, decisions in medicine or ethics—all are good topics for negotiation. In fact, wherever economic, political, or social questions allow the possibility of compromise, the negotiation rubric may be used as a classroom exercise. And even if there is no compromise, as long as there has been a lengthy, verbal, and vocal interchange between all the members of the EBE class, the purpose of the class has been met.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. There are three major teacher roles in the language classroom: manager, facilitator, and participant. A teacher is a manager when she takes role, explains a grammar point, or assigns homework. A teacher is a facilitator when he goes from group to group making sure all the students are on task and answering questions and clarifying procedure when asked. A teacher is a participant when she has the same role as the students, such as watching a role-play or listening to an outside visitor give a presentation. In this article, identify the role of the teacher in:

   a. ________ preparing a simple scenario describing the situation.
   b. ________ being an "unbiased arbitrator and source of facts."
   c. ________ acting as a scribe, noting all points of agreement on the blackboard.
   d. ________ dropping the issue.
   e. ________ suggesting other approaches that the group may not have examined.
   f. ________ showing interest in the outcome of the debate.

2. What is your opinion about the ESP teacher's promoting assertiveness and compromise in the EBE classroom? Isn't the teacher's job to foster language acquisition, not psychological behavior?
3. The author states that "some cultures are uncomfortable with the confrontational style of American negotiation, especially the women students." Do you think negotiation style is a cultural issue or a gender issue? Do you think all Americans, including American women, prefer a confrontational negotiation style? Describe the negotiating style in your country.
4. Every classroom has some outspoken students and some quieter ones. The author suggests including the quiet students by having "an obvious leader from their side ask their point of view." Do you think this is a successful way to include quieter students? What other ways can you think of that might encourage quieter students to participate?
5. Do you agree with the author's statement that "as long as there has been a lengthy, verbal, and vocal interchange between all the members of the EBE class, the purpose of the class has been

met"? What do you think the author's purpose is? Are there any other purposes that you think an EBE class should meet?

Activities

1. Some issues have two real sides and some do not. Which of the following issues allow rational people to disagree? For those with real sides, identify the arguments for and against the issue.
   a. the building of dams for hydroelectric power
   b. the use of antibiotics
   c. the prevention of oil spills
   d. the use of credit cards
   e. a one-child population policy
   f. the need for a police force
   g. finding a cure for cancer
   h. allowing people to decide when they will die

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ESP FOR SECRETARIES

Jonathan Boggs and Margery Toll

ESP for Secretaries was designed for a group of "bilingual" secretaries from Chile who came to the International English Institute in Fresno to spend a month improving their English skills. The focus of their intensive course was on English language skills specific to the business field. The students attended classes 25 hours a week, with one afternoon each week devoted to on-the-job training at local businesses. The program presented a number of challenges to administrators and teachers. For example, while the students shared a common background of language, culture and occupation, they had significantly different levels of proficiency in English. Because the group was relatively small, these differences had to be addressed in the same classroom. Another challenge that soon became evident was that the ESL-oriented teachers needed to switch their thinking from ESL to EFL since the students were returning to their Spanish-environment offices right after the course. The secretaries did not need to learn how to communicate effectively with an American boss, for instance, or how to handle routine transactions typical of an American office. Much of the published ESL business material was thus not suitable for a course such as this. The course consisted of three major elements: business writing, language skills, and on-the-job training.

BUSINESS WRITING

The business writing component covered the drafting, revising, and editing of several types of business writing, including letters, memos, and reports. Such considerations as audience analysis, organization, format, style, and punctuation were emphasized. The students composed their documents using IBM-compatible computers and Microsoft Word software. Several of the writing assignments were photocopied for the grammar instructor, who then used them as the basis of the grammar instruction.

LANGUAGE SKILLS

The language skills component consisted of grammar, listening/conversation/culture, and reading. The grammar teacher worked closely with the writing teacher to coordinate the teaching of grammatical structures. The text for the grammar class (Baugh, 1987) was chosen for its user-friendliness, its low cost, and its future desk reference value. A number of grammar handouts were also designed as ongo-

From CATESOL News 1989

ing reference materials. In fact, it was suggested to the students that they set aside their favorite handouts from the entire course and compile them into a resource binder for their office. A bonus for grammar teacher and students was a shared enthusiasm for the comic strip character Cathy, an appropriate personality because she works in an office and because in the Sunday strip she often repeats the same grammatical structure over and over again.

The listening/conversation/culture class included such activities as intensive listening to increase overall comprehension, intonation practice to improve competence in conversations, and speeches in front of a video camera to develop self-confidence in formal situations.

The reading class concentrated for the most part on ESL business texts, with the emphasis on vocabulary and business concepts.

ON THE JOB TRAINING

One afternoon a week, the secretaries had the opportunity to go to local businesses and get genuine work experience. This proved to be the most popular part of the course but also the most challenging part to arrange. Each secretary was assigned a company that was involved in the same type of business as her company in Chile. An American secretary was selected to be a partner and work with each Chilean secretary. On the first day, a luncheon was held at a local restaurant for the purpose of introducing the Chilean secretaries to their American counterparts. Seating was prearranged, and as soon as the secretaries were introduced to each other, they started lively conversations. After lunch, the American secretaries took the Chilean secretaries back to work with them.

The Chilean secretaries did actual work in their assigned offices, and the American secretaries had nothing but good reports on their performance. A second luncheon was held at the end of the session to thank the American secretaries and to allow all the secretaries to say goodbye. Everyone agreed that the program had ended too soon, for they would have liked to continue with the momentum gained in the four weeks of study. We were all satisfied, however, that the course was a success, not only because of the obvious progress in the students' English proficiency but also the many friendships the program fostered. We hope to repeat this course in the near future.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. As is typical for an ESP course, the class consisted of students with varying proficiency levels and needs that could not be met with published material. Discuss ways in which you would handle such a situation. How would you accommodate the varying proficiency levels? What would you do about materials?
2. Describe the difference between ESL and EFL. Which do you think provides the better environment for language acquisition?
3. What is meant by "intonation practice"? How would you incorporate the teaching of this important skill into your ESP class?
4. Audience analysis is an important aspect of ESP writing. Discuss what the different audiences might be in a business context.
5. The author says that several of the writing assignments were composed on computers. If the students in an EBE class are not familiar with computers, do you think it is the responsibility of the ESP instructor to teach the students to use them (assuming they are available)? What if you found yourself teaching an EBE class where no computers were available?
6. The author mentions that there was a separate writing and grammar teacher who worked closely to coordinate their activities. What are the advantages and disadvantages of such a separation of related skills? Would it have been better for the same teacher to have taught both classes?

Activities

1. List the elements of grammar that are present in the following business letter (from Lougheed, 1993, p. 121):

> **MSG Systems Inc.**
> 1781 Orange Blossom Lane, Suite 509
> Orlando Florida 32817
> (407) 232-0880 Fax (407) 476-0455
>
> December 2, 1995
>
> Rosa Tucci
> General Television Services
> 1600 East Grand Avenue
> Chicago, Illinois 60611
>
> Dear Ms. Tucci:
>
> Thank you for your inquiry about our telephone answering machines and voice mail systems. I am enclosing brochures on our products.
>
> A sales representative will be in Orlando next week. We will call you to schedule an appointment.
>
> Again, thank you for your interest.
>
> Sincerely yours,
>
> Hazan Ozal
> Marketing Manager
>
> cc: V. Alfonso, Sales Representative

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WORKING WITH NUMBERS IN THE ENGLISH FOR BUSINESS AND ECONOMICS (EBE) CLASSROOM

James Johnson

English for Business and Economics (EBE) has become an important part of the curriculum in ESL programs, both in the U.S. and overseas. With the globalization of the world economy, English is, more than ever before, the common language of business. Rising prosperity overseas has led more young people to seek education and training in the U.S. Approximately 23,000 international graduate students (14% of the total number) studying in the U.S. were enrolled in MBA programs in 1988/89. Just under half of this number (49%) were from Asia (*Open Doors*, 1988/89, Institute of International Education). An even greater number of international students are studying business and economics at the undergraduate level.

As ESL programs try to meet this growing demand, they face a dilemma: most ESL professionals shy away from EBE because they do not have sufficient training, are not interested in business concepts, or do not want to compromise their sociopolitical beliefs. Conversely, business graduates tend not to be attracted to the poorly-paid TESL profession. The result is that many ESL instructors have to be coaxed, goaded, or thrown bodily into the EBE classroom. This is unfortunate, because, with a little preparation, teaching EBE can be an exciting challenge for any ESL instructor.

If you are going to be teaching a course in EBE, you might start by reading the finance or economics section of your local newspaper or by looking through magazines such as *The Economist* or *Business Week* at your local library. You may be surprised to find that these magazines are written for the intelligent layperson. Even *The Harvard Business Review* has become much more accessible in recent years to the nonspecialist reader. You might also consider taking a course in finance or marketing at your nearby community college. This will provide you with some of the basic concepts in business and economics and will boost your self-confidence in the EBE classroom. In my own case, a course in basic accounting helped me to overcome my fear of, and antipathy to, working with numbers.

PURCHASING POWER PARITY

One effective activity for the EBE classroom introduces the notion of purchasing power parity (PPP), an important concept in international finance. When we travel overseas, we are delighted to find that a hotel room in, say, Mexico is half the price of a similar hotel room in

From CATESOL News 1991

the U.S., or we are dismayed to find that a cup of coffee in Berlin costs the equivalent of four U.S. dollars. The theory of PPP states that, in the long run, the exchange rate between two currencies should equal the cost of an identical basket of goods bought in the respective countries. In other words, a dollar spent in the U.S. should purchase about the same amount as a dollar exchanged into Deutschmarks and spent in Germany. If it actually purchases less, the dollar is undervalued; if it purchases more, it is overvalued.

Each year, *The Economist* publishes its Big Mac Price Index (see Table 1), which is a novel and stimulating way of looking at inter-

Table 1. The Big Mac Price Index

Country	Price (local currency)	Implied PPP of Dollar	Actual Exchange Rate (May 91)	% Over (+) or Under (-) Valuation of Dollar
USA	$2.25	—	—	—
Germany	DM 4.30	1.19	1.67	-13
Japan	Y 380	169	135	-20
France	FFr 18.00	8.00	5.65	-29
S. Korea	Won 2100	933	721	-23

Source: The Economist

national exchange rates and PPP. To determine the PPP, divide the cost of a Big Mac hamburger in Japan (380 yen) by the cost of a Big Mac in the U.S. ($2.50); this gives 169 (380/2.5 = 169), which is the implied exchange rate of the dollar in Japan. In theory, the American ESL instructor who gets off the plane in Tokyo with a fresh, U.S.-made Big Mac in her purse should be able to exchange it for 169 yen. However, the actual exchange rate (in May 1991) was 135 yen to the dollar. Therefore, the Big Mac index suggests that the U.S. dollar is undervalued in Japan , i.e., the dollar does not buy as much in Japan as the index suggests it should.

USING THE BIG MAC PRICE INDEX

You can use the Big Mac Price Index in a number of ways in the EBE classroom:

- Have the students obtain current exchange rates for their home country's currency from, for example, *The Wall Street Journal.*
- Ask the students to construct tables showing the cost in their own country of international commodities such as Coca-Cola, Pepsi Cola, rice, milk, or eggs. Be sure to use a standard measure, e.g., a liter of Coke, a kilo of rice. Choose an item that is

available in a standard form in many different countries; it should be produced or manufactured locally to avoid price distortions caused by transportation costs or tariffs.

- Have the students calculate the PPP between the dollar and students' home currencies.
- Elicit from students their conclusions about the effects of overvalued and undervalued currencies. Would they rather be Americans buying Big Macs in Japan or Japanese buying Big Macs in the U.S.? Is this a good time for Japanese people to visit the U.S.?
- A more sophisticated comparison can be made between other currencies. For example, dividing the cost of a Big Mac in Japan (380 yen) by the cost of a Big Mac in Germany (4.30 Deutschmarks) yields 88.37. This is the implied exchange rate of the Deutschmark to the yen. The actual exchange rate is found by dividing the yen's actual rate against the dollar (138 yen) by the Deutschmark's actual rate against the dollar (1.67), which gives 82.63. This suggests that the yen is slightly undervalued against the Deutschmark.

You should not be put off by a little number crunching. All you need is a pocket calculator and a little patience to work out the answers yourself before class. Besides learning an important concept, your students will be able to calculate the likelihood of their national currency rising or falling against the dollar. PPP might also help you to decide whether to take your vacation in Germany or Mexico this year!

Simple mathematical activities such as these are challenging and exciting for both students and teachers of English for Business and Economics. They can also help to lessen the fear new EBE teachers might have of business concepts and calculations as they begin to broaden their horizons and engage in the fascinating world of international finance while providing their international students with important language skills.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the dilemma the author describes. Does it apply only to EBE or does it apply to other kinds of ESP?
2. What is the author's attitude toward subject-matter training in ESP?

3. What are the author's suggestions for teacher-preparation in EBE?
4. Explain the notion of Purchasing Price Parity (PPP) for a non-business-oriented audience.

Activities

1. Select one of the standard products mentioned (e.g., Coca-Cola, rice, milk, eggs) and create an index table for the prices in various countries. Determine the prices by asking classmates or other individuals from different countries what the current prices for such items are in their countries.
2. Using the financial section of a newspaper, construct a daily line graph for the value of the currencies of your classmates' native countries (or countries they are interested in) for a 2-3 week period. Are the currencies over- or undervalued? Discuss whether the fluctuations (if any) reflect national or international events in any way.
3. Compare several currencies of interest to the class in light of the data gathered for Activity 1. What do the results tell you about the relative value of the currencies against each other?

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ENGLISH AT THE BANK

Vincent Meis

During the spring semester of this year, I was asked to teach an on-site workshop for six students who were clerical workers at the Federal Reserve Bank. They were all longtime residents of the United States and fluent English speakers. Like most nonnative speakers, however, who learn a second language primarily in the workplace with little formal training, there were great gaps in their accuracy, gaps that did not necessarily interfere with communication, but which readily identified them as nonnative speakers. This lack of accuracy, which included pronunciation problems, fossilized grammatical errors, and limited vocabulary, was in fact what had led them to these voluntary classes. Testing had shown that their English was inadequate to enter the regular credit classes which the Federal Reserve Bank offers through the City College of San Francisco, including classes in English and Accounting. I also detected that the underlying motivation to take classes in the first place was a frustration at their inability to gain promotions. Somewhere along the line they had been told directly or had surmised that their English was simply not good enough. Thus, I decided to tackle this assignment with activities that would both build confidence and increase their chances to better their work situation.

As fossilized grammatical errors are very difficult to deal with, grammar was not emphasized in the course but handled mainly as a component of functional and task-based activities. Also included in the curriculum were pronunciation exercises to work on interference in communication and newspaper readings to enhance vocabulary and cultural awareness. By focusing on these three areas, students were able to increase their confidence in English and become more motivated to continue their studies.

MATERIALS

Many of the ideas and actual materials for the functional and task-based activities used in the class came from a book by Fournier (1990). After questioning the students about their jobs, I decided on units that concentrated on improving effective communication, using the telephone, and preparing for job interviews. We used discussion, role play, and listening activities to improve the students' skills in these areas. Some of the tasks we worked on were writing memos, resumes, and cover letters. The next time they go for a job interview,

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either within or outside their company, they will at the very least be better prepared with a presentable resume and interviewing skills. Another successful task was the writing of a memo to their fellow workers about the in-house English classes at the bank and inviting them to participate. Students felt that this activity in particular gave them a greater sense of participation in what was going on in the bank.

Though I earlier referred to the students as fluent English speakers, all of them admitted that at times they had communication problems with co-workers and management and that these problems were occasionally due to incorrect pronunciation. We worked on stress patterns, emphasis patterns, and voicing as well as the individual sounds that cause problems for speakers of certain languages. Three of the students were Spanish speakers and the other three were Chinese, East Indian, and Filipino, respectively. One activity that was particularly helpful was the use of a tape recorder. I asked the students to bring in material from their work, memos, manuals, etc. I would model a certain passage from these materials while they followed along, marking the pauses and stressed syllables. Then they would record their versions and we would listen to them as a class, making corrections and commenting on intonation and stress patterns. Students would later try to incorporate these changes into a second recording.

Other communication problems stemmed from the tendency to learn only enough English to do their jobs, while socializing primarily with others who spoke the same native language. As they had particular difficulty understanding native English speakers, they tended only to enter into conversation with them when they had to. By bringing in newspaper articles, I hoped to increase their knowledge of idiomatic language and give them confidence to enter into casual conversation with their coworkers. About half of the articles we read were taken from the business section of the newspaper and the rest from current events. Through the business articles they learned vocabulary and idioms which are used in the business world and through the current events articles, they learned new vocabulary and had the opportunity to discuss issues that they might later bring up with coworkers.

One newspaper article that they particularly enjoyed described the "tap dancing executive," the type of management employee who has to look constantly busy because in reality he or she has nothing to do. They were able to see the humor in the article and at the same time recognize a phenomenon that occurred in their own workplace.

These types of activities have become more or less standard fare in in-house ESP programs and are successful on a superficial level in

the form of the products that come out of them, i.e., a completed resume, useful vocabulary, or an awareness of certain pronunciation rules. On a deeper level, however, I realized that something else was going on. Students who felt reluctant to discuss work-related problems with their supervisors for cultural reasons and/or lack of confidence in their English skills became quite open about discussing them in class. In fact, so much time was spent on these discussions that I began to wonder if encouraging them to bring their own experiences into conversations about effective communication was such a great idea. I found that my role as teacher was taking on a secondary aspect of group therapy leader, a role I wasn't sure I wanted. I might add that this was a group of people who were relatively happy in their jobs, a reminder that even in the best of work situations there are frustrations and problems that must be dealt with.

Based on these experiences I realized that what these students needed more than anything else was confidence, a clearer idea of how Americans deal with each other in the work environment, and a chance to discuss and even "act out" in a safe setting. Though nothing can replace the actual experience of going into the boss's office for a talk or going through a job interview, role playing is good practice. We talked about and then role-played negotiating strategies that could be used with certain personalities within the bank without mentioning any names. We set up mock job interviews with real ads from the paper. We talked about their goals and, I think, helped clarify some of them. In addition, we talked on a personal level about their problems at work and I, in a sense, took on that role of group therapy leader that I had been reluctant to assume at the beginning. I know I learned some things through this experience and my hope is that l helped them on the way to improving their work situations.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. There are two types of motivation: integrative and instrumental. Integrative motivation describes those learners who want to become a member of the second-language community. Instrumental motivation describes those learners who want to improve their own (usually professional) lives. Which kind of motivation does the author describe in the first paragraph?

Which kind of motivation did the members of your group have in learning their second or other languages? Which kind of motivation do you think is the most effective for language learning?
2. What is a "fossilized grammatical error" and why is such an error "difficult to deal with"?
3. The ESP course designer needs to consider the needs of the job (including co-workers), the needs of the supervisor and/or boss, the needs of the field, marketplace or product, the needs of the institution, and the needs of the student in order to produce a successful ESP course. Which of the needs does the author of this article identify? What needs are not addressed? How would you go about determining these needs?
4. What does the author mean by "interviewing skills"? Are such skills different in different cultures? Discuss.
5. Do you agree that reading newspapers will give students "confidence to enter into casual conversation with their coworkers"? Why or why not?
6. The author states that his role as teacher was "taking on a secondary aspect of group therapy leaders." Is this an appropriate role for a teacher to take on? What are some of the advantages and disadvantages of taking on this role? How do they relate to the cultural expectations of what a teacher should be?

Activities

1. The author describes dealing with grammar as "a component of functional and task-based activities."

   a. Identify the elements of grammar that might be components of the following functions:

      Example: predicting the weather: modal auxiliary verbs (It might rain tonight; It will probably be warmer next week)

      1. introducing a colleague:
      2. explaining a regulation:
      3. following directions:
      4. apologizing:
      5. expressing approval:

b. Identify elements of grammar that might be components of the following tasks:

   1. answering the telephone
   2. asking for a job interview
   3. describing your employment history
   4. writing a memo

2. The author describes helping students to improve their pronunciation by working on stress patterns, emphasis patterns, and voicing.

   a. An emphasis pattern can be shown with an intonation line, as shown in the following example:

      Where do you live?

      Draw the intonation lines for the following sentences:

      1. I worked for a computer company.
      2. Do you have any openings for accountants?
      3. When does the job begin?
      4. Are there any other positions available?
      5. Thank you very much.

   b. A stress pattern is usually shown with an accent mark, but it is easier to see if the stressed syllable is underlined as shown in the following example:

      employment

      Underline the stressed syllable in the following words and phrases:

      1. category
      2. communication
      3. just in case
      4. nevertheless
      5. in a minute

EBE

INTERCULTURAL COMMUNICATION IN THE WORKPLACE

Doug Beckwith

Training in intercultural communication in the workplace is designed either for English speakers going to work abroad or for non-English speakers coming to work in the U.S. or working for American-owned companies in foreign countries. The program I manage is for the Japanese branch of a large American producer of household, health and beauty care goods, which has operations throughout the world. The trainees all work for the same company but the programs are tailored to different departments. The research and development trainees, who usually have 3-6 years of company work experience, come to California for eight weeks of training before starting on-the-job training at the American headquarters; the marketing trainees, all recent university graduates, come for 18 weeks of training before returning to work in Japan. The training programs range in size from 6-12 trainees and run five days a week from 8:30 AM to 5:00 PM including training, tutorials and independent work time. Those of us who come to the corporate training world via ESL and adult education know that tapping into real motivation is the key to success. For this reason, we need to show the trainees very early what they are going to learn, how they are going to learn it, why they are going to learn it, and how this is going to help them in their work.

WHAT THE TRAINEES LEARN

Like all ESP courses, the training program focuses on what the trainees actually need to function and succeed in the workplace. At the beginning of a relationship with a new client, we do an extensive assessment of the company's overall intercultural communication needs. In addition, we constantly assess the needs of the individual participants, both stated and unstated. Sometimes the best way to determine trainees' needs is just to ask them, yet with language difficulties and cultural reticence this may not be sufficient. This is where ESL infomation gap and role play activities become valuable, especially in helping trainees see the role they themselves can play in shaping their own training.

A simple example from a recent project will illustrate what I mean. After we had spent several sessions in the business communication course, the speaking and vocabulary classes and the intercultural communication course, I asked the trainees to come up with role-plays based on previous real-life on-the-job experiences they had had

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in meetings that hadn't worked the way they wanted or expected them to. Through these role plays, they were able to use their knowledge and training experience to anticipate how an American businessman might try to persuade them and respond in a manner that both parties could understand. This role play project was successful because the trainees were able to identify their needs and address them successfully.

HOW THE TRAINEES LEARN

We call our participants "trainees" rather than "students" because we ultimately want them to be responsible for their own training. Since taking initiative and demonstrating motivation are essential to success in any business environment, doing the same in business training is not only expected but practical and productive once the trainees are back on the job. In fact, I know the courses are working best when I'm working the least, that is to say, when the trainees are in charge of organizing, orchestrating, executing, and delivering the final products and I am merely the facilitator who draws the best out of the participants and then gets out of the way.

WHY THE TRAINEES NEED INTERCULTURAL COMMUNICATION SKILLS

Given the cultural shock of life in California in a long-term intensive immersion program, it is not surprising that the motivation of the trainees flags or even gets lost at times. They all arrive wanting to communicate more effectively with their non-Japanese supervisors and colleagues, but it is not only the lack of language skills that gets in the way of effective communication. For long-term success in workplace intercultural communication, trainees need to have a good understanding of underlying cultural values, both their own and those of their non-Japanese colleagues, and how those values might be manifested in behaviors directed toward or expected from them. For example, every culture has business meetings, but the behaviors expected and manifested in those meetings vary dramatically from one culture to the next. Why? What sort of cultural values are behind aggressive participation? Behind silent listening? What are the cultural variables involved? What are the power dynamics at play? Which apply and in what setting? Discussions of these issues help lay the groundwork for trainees to feel confident in experimenting with new communication styles because they can see them as logical behaviors within someone else's cultural context ant not merely as a new way of acting because the trainer has told them to do it that way.

These discussions also help eliminate a lot of language confusion, not because the trainees don't understand the words but because the

words may have slightly different meanings for them than they do in the U.S. For instance, the program has a checklist of elements we consider key to the mastery of each particular business skill. However, although the trainees usually understand the words on the list, they often have very different perceptions of what the concepts mean. The term "active participation," for example, has extremely different connotations depending on the cultural group who is defining it.

HOW THE TRAINING WILL HELP THE TRAINEES IN THEIR WORK

How the training will help on the job is not always so obvious to trainees who are literally thousands of miles away from their jobs, homes, and culture, especially the recent university graduates who have had little working experience with the company prior to their arrival. For this reason, we give them plenty of opportunities to apply their training skills in California during the weeks of training by having them give business speeches during field trips, persuade the training manager to reallocate course hours, discuss the trade deficit with a neighbor, and the like. Once the trainees start looking at behaviors and thinking about the values that underlie them, they begin to find that all forms of communication, both business and social, become more effective and more interesting.

These four aspects of the training program guarantee that the program includes the trainees' perspective, for every individual in every group that arrives has unique concerns that need to be addressed. Results have shown that a training program that focuses on these four aspects allows participants to become masters of their own learning and provides effective preparation for enhanced cultural communication in the workplace.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author implies that motivation is generated by telling the students what they going to learn, how they are going to learn it, why they are going to learn it, and how it will help them. How is this related to motivation and how does this conception relate to the integrative and instrumental categories of motivation?
2. The author describes an important and underutilized aspect of needs analysis: intercultural communication needs. Ask the non-native speakers of English in your group to each describe

one intercultural communication need they have experienced and describe it to the group. Then ask each native speaker of English to describe one intercultural need they have experienced and describe it to the group. When each person has spoken, try to classify the needs into categories (e.g., gestures, greetings, expressing thanks). Present your findings to the larger group.

3. The author describes extensive use of role plays, an important technique in many forms of ESP, especially if clients or customers are involved in the workplace. Role plays are usually initiated by the teacher giving students a card with a specific situation described on it to shape the motivation of the actor and the direction of the role play. What is different about the situation described in this article? At what proficiency level do you think role plays can effectively be done?
4. The author describes the individuals in his class as trainees rather than students. Some ESP professionals argue that ESP instructors should be called *practitioners* rather than *teachers*. Are these parallel terms? Why or why not?
5. The author says, "I know the courses are working best when I'm working the least, that is to say, when the trainees are in charge of organizing, orchestrating, executing, and delivering the final products and I am merely the facilitator who draws the best out of the participants and then gets out of the way." This is a basic tenet in communicative language teaching and learning. Is this idea appropriate for all ESP situations as well? Can you think of any situations in which it would be less appropriate?
6. The author discusses the notions of *cultural values* and *cultural variables*. Discuss what these terms mean to you. Then discuss the questions posed in the article: What sort of cultural values are behind aggressive participation versus silent listening? What are the cultural variables involved? What are the power dynamics at play? Which apply and in what setting?
7. The author argues, "Discussions of [cultural] issues help lay the groundwork for trainees to feel confident in experimenting with new communication styles because they can see them as logical behaviors within someone else's cultural context and not merely as a new way of acting because the trainer has told them to do it that way." Do you agree with this argument? How do the members of your group feel about "experimenting with new communication styles" in another culture?

Activities

1. Identify the cultural backgrounds (or extensive experience of another culture) of the members of your group. Ask each cul-

tural group (or representative) how they would respond to a gift from a business partner, reject a certain food at the dinner table in a business partner's home, or get to the point in a business meeting. Discuss whether the practices identified in the chart really reflect U.S. customs. Then fill in the chart with practices from other cultures. Finally, discuss what cultural values and/or variables are indicated in each response.

Culture	Responding to a Gift	Rejecting Food	Getting to the Point
U.S.	Say, "Thank you very much." Any obligation is up to the individual.	Say, "I'm sorry but I don't care for any meat" or else leave the food on the plate.	Say, "The main reason I wanted to see you was X..." Fairly aggressive stance.

2. Make a list of concepts that have different meanings in different cultures (e.g., politeness vs. rudeness, on time vs. late, tidy vs. untidy). Indicate how these concepts differ in different cultures.
3. Students are given opportunities to apply their training in the following ways:

- give business speeches during field trips
- persuade the training manager to reallocate course hours
- discuss the trade deficit with a neighbor

Add three additional possibilities for the application of training. How would you go about setting up these activities in the ESP classroom?

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DEVELOPING APPROPRIATE SCHEMATA FOR BUSINESS CONCEPTS

Peter Master

When I was in Nizhni Novgorod (formerly Gorky), Russia, I met an American woman named Adrienne Burns, who was working for the Peace Corps. Her assignment was to train Russian businessmen to understand and utilize international business practices in order to ease the entrance of Russia into the international business community. She enjoyed her job, but she told me that she was having a great deal of trouble getting her clients to understand the true meaning of several essential business concepts. The greatest problem seemed to be that Russian businessmen had their own ideas of what certain business concepts meant, and their reluctance to adjust their conception to the international standard was causing her to lose confidence that she would be able to aid her charges and carry out her assignment.

As she was describing this situation, I realized that what her businessmen lacked was the appropriate schemata for certain business terms. I was reminded of a passage in King, Fagan, Bratt, & Baer (1987), in which the authors describe how the students' schemata might be activated for a discussion of the American Civil War:

> *Before beginning a unit on the American Civil War, for example, the teacher should discuss the idea that differences can eventually lead to conflict. Students may well understand this concept from their own personal experiences. This understanding can be extended into an exploration of their awareness of social, political, and economic differences among groups of people and nationalities. The teacher can then focus on specific facts related to differences between the North and South in the antebellum period, which eventually led to the Civil War. A basic concept can thus become the starting point of a social studies unit. An appreciation of such fundamental concepts and their role throughout history is an essential component of social studies instruction. Students who memorize facts and figures, but fail to comprehend the important concepts, will not really master the content of social*

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studies. In addition, by relating the current unit of study to the students' own background knowledge, the teacher promotes understanding and stimulates enthusiasm for the topic. ESL students, for example, may not be keenly interested in the Confederacy in the 1860s, but they will probably be anxious to discuss their own personal problems with being "different." The teacher capitalizes on these experiences by tying them into the social studies concept and the events leading up to the Civil War (pp. 98-99).

In other words, the best way to foster an understanding of and enthusiasm for a new concept is to link it to the personal experience of the student, or in this case, client. For the next hour, Adrienne and I brainstormed together on what crucial concepts her clients were having trouble with and how they could be related to their everyday lives. We came up with five concepts: marketing, re-engineering, personnel management, assets, and foreign partners.

MARKETING

Marketing is defined as follows in the glossary provided in Spring-Wallace (1993):

Identification of consumer needs and the development of a product to meet those needs. This is followed by a strategy of pricing, promoting, and distributing the good or service to satisfy both the buyer's and the seller's objectives (p. 168).

To this definition must be added the more abstract notion that marketing caters to people's perceptions of a product. This is often brought about by appealing (e.g., through advertising) to the fantasies of the potential consumer. The "Marlboro man" is a good example.

What Adrienne found her Russian businessmen assuming was that marketing referred only to the concrete aspects, i.e., the physical act of selling a product. Thus, for them, marketing often meant simply setting up a table and displaying their wares in some accessible spot. This notion may be partially explained by the lack of a market economy in the former Soviet Union. McRobie (1990) described how "the very concept of competition was foreign to them, let alone the language of business. 'Why do you need seven different kinds of mouthwash?' they asked during the first week after a futile attempt to have

them think up an advertising campaign for a new kind of mouthwash" (p. 5). Western-style marketing has increased in Russia since then, but the lack of experience of a market economy is still a serious liability.

The best way we could think of to link the broader conception of marketing to the personal experiences of the Russian businessmen was to relate it to the use of cosmetics. In using cosmetics, a person is making the best of him- or herself (packaging) by appealing to the fantasy of the desired partner (consumer need). The more the "seller" can anticipate the needs and fantasies of the "buyer," the more successful the "sale" is likely to be.

RE-ENGINEERING

Re-engineering is the creation of a process that works out of one that doesn't. Thus, the re-engineering of a company is not simply modernizing it (e.g., by buying new equipment), as many of Adrienne's Russian colleagues assumed, but making sure that the result is something that works. This includes learning from past mistakes and often requires the simplification of the process. Re-engineering might be linked to the experience of a failed attempt to follow a recipe, as a result of which the process is evaluated and re-structured so as to produce an acceptable dish. It might also be linked to the "practice-makes-perfect" encouragement often given to the novice tennis player or skier.

PERSONNEL MANAGEMENT

Spring-Wallace (1993) defines *management* as follows:

> *The process of planning, organizing, leading, and controlling the resources—human, material, and financial—in an organization* (p. 168).

Personnel management thus focuses on the management of human resources. Good personnel management often includes allowing the employees to use their creativity and initiative in doing their work. Thus, there is a more abstract component to personnel management than simply organizing, leading, and controlling the employees of a company. The employees need to be organized for their most effective output, led in such a way that they are inspired to produce the highest quality work, and controlled in a fashion that does not stifle creativity and initiative. Perhaps not surprisingly, Adrienne's Russian clients perceived personnel management to be simply telling the employees what to do without understanding the need to motivate them to care about their work.

The best way we came up with to link this broader concept of personnel management to the personal lives of the businessmen was to relate it to child rearing. Parents are generally aware that they cannot control their children by simply telling them what to do and still have a harmonious household. Furthermore, parents need to be aware of the strengths and weaknesses of their children in order to bring them up to be healthy, balanced, productive members of society. In the same way, effective personnel management maintains the morale of the group being managed.

ASSETS

Spring-Wallace (1993) defines *asset* as follows:

> *Anything of economic value that is owned by a firm or an individual* (p. 165).

Assets include not only equipment and other physical possessions (i.e., physical assets) but also individual or company strengths, including wholly-owned items such as patented technology and the knowledge and skills of the employees (i.e., human capital). Adrienne's Russian clients tended to understand *assets* as something that is given (e.g., by the government) and certainly did not include personnel in their conception of the term.

A potential parallel to personal experience is a vegetable garden. The products of the garden are clearly of economic value, but so is the knowledge of the gardeners who raise the products, not to mention the bees that fertilize the blossoms and the earthworms that maintain the soil. These are all part of the assets, in the business sense, of the garden.

FOREIGN PARTNER

The notion of a *foreign partner*, a new concept for the fledgling Russian business community suddenly freed from the dictates of a centralized economy, was also not well understood by the Russian businessmen. To them, a foreign partner was simply a company or an individual who poured money into a Russian company for its own ultimate benefit. In fact, a foreign partner requires reciprocity and mutual benefit, e.g., the exchange of ideas, technologies, and training. A potential parallel in the experience of the businessmen is the treatment of a new friend when one moves to a new neighborhood. Clearly, much reciprocity is required if both parties are to maintain the desire to continue the relationship. It is not enough for one to be the giver and the other the receiver. Thus, a partner cannot be seen as an exploiter or the partnership will fail.

CONCLUSION

These five business concepts and their corresponding "everyday" notions were introduced in a seminar on Business English I gave the next day in Nizhni Novgorod. The participants, all teachers of Business English, seemed to immediately see the value of activating the schemata in explaining concepts to their students. One of them asked if he needed to do this for every business concept he introduced, to which I replied, "Why not?" The more we can relate things that we already know to a new word or concept, the better we are likely to learn it.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What does it mean to "activate schemata" in preparing students for a reading or a discussion?
2. *Marketing* is defined as the "identification of consumer needs and the development of a product to meet those needs. This is followed by a strategy of pricing, promoting, and distributing the goods or services to satisfy both the buyer's and the sellers' objectives." Compare this definition to the concept of needs analysis in ESP. Do ESP practitioners also need to be concerned with "catering to people's perceptions of a product"?
3. Discuss the use of cosmetics as an appropriate parallel to the strategy of *marketing*. Are there parallels between using cosmetics and marketing an ESP course?
4. Discuss the concept of *re-engineering* in relation to the modification of an ESP course when ongoing needs analysis shows that the initial direction of the course was inappropriate.
5. Are there any aspects of personnel management that can be

applied to teaching ESP? Is child rearing an appropriate parallel for the responsibilities of an ESP teacher?

6. What are the assets (in the business sense) of an ESP practitioner?
7. Are there any aspects of the notion of a *foreign partner* (as defined in the reading) that can be applied to providing a company with language training services for its employees?

Activities

1. *Advertising*, as defined in *Webster's New Universal Unabridged Dictionary* (1994) is "the act or practice of calling public attention to one's product, service, need, etc." (p. 21). Can you think of a corresponding "everyday notion" for *advertising*?
2. *Reinvestment* is the investing of money or capital by a company in itself in order to improve its profitability. Can you think of a corresponding "everyday notion" for *reinvestment*?
3. *Research and development* (R & D) is the investigation into and the creation and improvement of new products. Can you think of a corresponding "everyday notion" for *research and development (R & D)*?
4. Create an advertisement to entice employees to sign up for a free, voluntary Business English course that you have been hired to teach on an experimental basis.

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CREATIVE ASSESSMENT OF EBE TERMINOLOGY THROUGH PICTURE ADS

Glayol Ekbatani

Testing vocabulary is one of the areas that has traditionally relied on multiple choice and true-false methods of assessment. In spite of the ease of administration and the popular nature of this method of assessment, we found the outcome of this kind of testing to bear little correlation with the actual contextualized usage of the vocabulary. This shortcoming is especially significant in ESP courses whose primary purpose is to prepare students for specific situational tasks. Our purpose in designing an alternative method of testing vocabulary for business English courses was twofold: to make the testing process a positive learning experience and to assess realistically the extent of comprehension and use of vocabulary in a new context.

MATERIAL

We tried to draw our material from popular journals and business magazines that were regularly used as tools for teaching terminology and reading comprehension. Since marketing was a basic component of the course, we selected a variety of picture advertisements accompanied by clearly written texts. Advertisements on different products such as cars, shampoo, food, and so on were presented. An example of a successful picture ad used in our project was an advertisement for Ensure, a vitamin supplement. The ad contained a brief text explaining the nutritional values of the product, its advantages, and its contributions to a healthy diet. It also contained pictures of healthy people using the product, which was especially conducive to Task 6 below (the role of the picture in promoting the product).

PROCEDURE

Students, in pairs, were asked to give short responses to eight open-ended questions about the ad. Each pair of students was given a different ad and allowed to confer and give a written response to the following tasks:

Task 1. Describe the basic features and functions of the products.
Task 2. Identify the words that best praise the product.
Task 3. Differentiate between subtle and direct approaches.

Task 4. Comment on the compatibility of the product to their needs.
Task 5. Determine the incentive used to appeal to the customers.
Task 6. Comment on the role of the picture in promoting the product.

These questions contained the new ESP terminology that was taught throughout the course. Therefore, the comprehension of the questions heavily depended on the knowledge of the new words placed in key positions. Furthermore, in responding to the questions, the repeated usage of the new words was inevitable. Thus, in addition to testing comprehension, the instrument gave us a clear understanding of how well the examinees could use the terminology in new contexts. Moreover, the test served as a valuable tool for reinforcement of the new words in various contexts. The questions also required the analytic reading of the text of the ad, providing the students with the opportunity to use the reading skills that were taught throughout the course.

EVALUATION

While all the tasks required short answers, the complexity of the tasks assigned varied. The responses to some tasks were concrete and could be drawn directly from the ad (Tasks 1 and 2). Other tasks required synthesizing the information from the ad with the respondents' personal knowledge, as well as demonstrating full comprehension of the terminology used in both the task and the ad (Tasks 3 and 6).

Given the eclectic nature of this instrument, the grading of the project was done holistically on a scale of 1-5. The accuracy and thoroughness of the responses as well as the correct usage of the terminology in new contexts were the main criteria used by the two raters. No points were deducted for grammar and mechanical problems.

However, other methods of grading could be used. For example, the examiners could assign points to each task. Higher points could be assigned to more challenging tasks. Pass/fail decisions or letter grades could then be assigned to the papers based on the total score.

CONCLUSION

Since the vocabulary varied in terms of difficulty, the test yielded a normal range of scores, as expected. The students found the testing process to be motivating since it was a major departure from the usual paper and pencil format of testing that they were familiar with. They also found the format of working with a partner in a test situation to be a useful experience. This test is suitable for students at high intermediate or advanced levels of proficiency.

General Guidelines

- In writing the test questions, include the terminology that has been covered in the course, so that the test reflects achievement, not general proficiency.
- Through similar exercises, prepare the students for the task of evaluating the ads; understanding the procedure should not be part of the evaluation process.
- Use this instrument if the focus of the course is reading and terminology.
- Allow at least one hour of class time for the completion of the task.
- Use ads on products that are compatible with students' needs. Avoid ads on products such as vacuum cleaners.
- Do not use this tool as the single instrument for making exit decisions. This instrument should be used in conjunction with other assessment tools.

Applications

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author states that testing vocabulary "has traditionally relied on multiple choice and true-false methods of assessment." However, multiple-choice assessment is either not practiced or has been only recently introduced in many countries of the world. Discuss your group members' experience with multiple-choice (if any) and other forms of testing. Have your group members encountered other means of testing vocabulary (e.g., filling blanks from a list of choices)?
2. The author states that "the test served as a valuable tool for reinforcement of the new words in various contexts." Most language learners require repeated exposure to new vocabulary before it becomes part of their active lexicon. Survey the members of your group to determine how many times they have to be exposed to a new word before they feel they have acquired it.
3. What is "holistic grading"? Which of the language skills (listening, speaking, reading, writing) is it usually associated with?
4. Discuss the author's alternative suggestion that points be assigned for each task. How would these points be determined for each of the six tasks?
5. What is the difference between achievement and general proficiency testing?

6. Do you agree with the author's recommendation that this test not be the sole instrument for determining exit decisions? What other assessment tools would be necessary?

Activities

1. In your group, select a recent advertisement containing both a picture and text from a popular journal or business magazine. Divide the following tasks (from the article) among the group and report your results back to the group.

   a. Describe the basic features and functions of the products.
   b. Identify the words that best praise the product.
   c. Differentiate between subtle and direct approaches.
   d. Comment on the compatibility of the product to your needs.
   e. Determine the incentive used to appeal to the customers.
   f. Comment on the role of the picture in promoting the product.

2. The testees were allowed to confer with each other before addressing the task. Discuss the advantages and disadvantages of this novel aspect of the testing protocol. Do you think such a conference would affect the individual ratings of each student?
3. The author used holistic grading on a scale of 1-5 but did not provide band descriptors to describe what each number (band) meant. Devise descriptors for each level. A suggested form for the highest level (5) has been provided. Fill in the remaining boxes.

Score	Band Descriptor
1	
2	
3	
4	
5	accurate, thorough response with correct usage of the terminology in a new context

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STRATEGIC DELIVERY FOR BUSINESS ENGLISH (BE) PRESENTATIONS

Julio C. Gimenez

Presentations together with meetings are considered an essential component of the communication skills in business English (BE) courses as "most business people, at some stage of their career, are required to present parts of their organization, products, a report, figures, etc." (Wilberg & Lewis, 1990, p. 17). Most textbooks for intermediate and upper-intermediate BE students devote at least one unit to this communication skill, and some BE writers suggest using presentations as a form of needs analysis to discover what language skills students already have and what they still need to acquire (Heyen, 1990; Wilberg & Lewis, 1990).

Most texts encourage students to concentrate on the different parts of a presentation (i.e., opening, and closing), giving little or no attention to the actual delivery of the presentation. Many present typical presentation language in the form of phrases to signpost what the presenter is about to do next or how to use cause-effect markers, and most suggest the importance of using appropriate visuals. However, "an approach to teaching the so-called language of presentations which emphasizes structure and discourse and the transmission of information leads our learners badly astray" (Powell, 1997), for it is usually the actual delivery of the presentation that most students find difficult.

To ease the process of delivery without removing all the conversational rapport and rhetorical pizzazz that good presentations are supposed to have, BE students should also be encouraged to consider delivery strategies such as sound chunking, rhetorical questions, dramatic contrasts, exaggeration, and point packaging. These strategies will improve their 'performative competence' (Powell 1997) and create an impact on the audience by making them remember not only the content of the presentation but also its presenter.

DELIVERY STRATEGIES

Let us now consider some of the strategies that characterize a high impact presentation.

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Sound Chunking

Sound chunking, also known as thought groups, refers to the use of pauses that effective speakers make to punctuate their speech. In other words, good speakers know where to pause to create an effect on their audience. Consider for instance the following two examples, where // indicates a pause:

1) What most people don't realize is that // one day they'll get up // and find there is not a drop of water left // for them to drink.

2) What most people don't realize // is that one day they'll get up and find // there is not a drop of water left // for them to drink.

The second version is more effective in that the pauses better prepare the listener to hear the problem and the effect, which allows the presenter to create a greater impact.

Rhetorical Questions

Rhetorical questions help the presenter add a dialogic aspect to an otherwise one-way communication and keep the audience interested and involved in the presentation. In the following examples, the second version is more effective because it helps the presenter build "links between the various points" (Ellis & O'Driscoll, 1992) in the presentation and keeps the audience involved:

1) This happened because in trying to keep up with what our competitors were doing, we lost sight of our customers' preferences.

2) How did this happen? // Very simple.// In trying to keep up with what our competitors were doing // we lost sight of our customers' preferences.//

Dramatic Contrasts

Dramatc contrasts are used by good presenters to draw the audience's attention to important aspects of the presentation. Thus, a sentence such as (1) can be made more effective by using dramatic contrasts, as in (2):

1) Our competitors will meet our customers' needs if we don't.
2) If we don't meet our customers' needs, // our competitors will.

Exaggeration

Exaggeration is achieved by the use of intensifiers such as *completely, really, extremely, and absolutely.* For example:

Our company's advertising campaign last year // was absolutely successful.// And how did we do that? //

Point Packaging

Point packaging, also known as tripling, refers to the fact that elements in an enumeration are more effectively presented if they are grouped or 'packaged' together in threes. Thus, the plan described in (1) is made much more effective by point packaging the elements, as in (2):

1) We will achieve our goal in three ways. First, we will research the market. Then, we will design the new product on the results of the research, and finally, we will run pilot tests.

2) And, how will we achieve that? // Very simply. // By researching the market, // by designing the new product on research results, and // by running pilot tests.

CLASSROOM APPLICATION

Helping students concentrate on the structural organization and the discourse of a presentation is probably the first step in producing an acceptable presentation. However, this is only half the picture. BE trainers should also call students' attention to the delivery strategies described above to enhance their performative competence. To determine the effectiveness of the delivery strategies, students may be asked to fill out an assessment grid (see Table 1) to provide feedback on the effectiveness of the delivery rather than the organization of the presentation or the correctness of the language of the presenter.

Table 1. Assessment Grid for Business English Presentations

How did the presenter handle:	Very effectively (2)	Effectively (1)	Not effectively (0)
the pace of delivery? (e.g., sound chunking)			
audience involvement? (e.g., rhetorical questions)			
information packaging? (e.g., point packaging)			

Comments on those you marked 0:

CONCLUSION

There is probably nothing more intimidating than speaking in public, regardless of the speaker's command of the language or the topic. Even extensive preparation and rehearsal does not always relieve the tension created by the delivery of the presentation, tension which may reduce the presenter's chance of making an effective impact. The delivery strategies discussed in this article aim to help BE students improve their performative competence and teach them how to stay in control of a situation by getting the audience on their side.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss how student presentations could be used as an aspect of needs analysis. Since needs analysis is usually a product of triangulation of sources, what other aspects of needs analysis would have to be included?
2. Why is it important in a business setting for the audience of a presentation to remember not only the content of the presentation but also the presenter?
3. What is meant by a "rhetorical question"? In which productive mode of language (speaking, writing) are rhetorical questions most likely to be used?
4. The movement of a subordinated (dependent) clause (such as an *if*-clause) to the position in front of the subject of the main clause is known as fronting. The general convention for fronting a subordinate clause is that the clauses should appear in chronological order, i.e., if the dependent clause occurs first, it should be fronted; if the main clause occurs first, it should not. Is this convention followed in the example provided in the reading?
5. Describe the grammatical change that has occurred between Sentence (1) and Sentence (2):

1) We will achieve our goal in three ways. First, we will research the market. Then, we will design the new product on the results of the research, and finally, we will run pilot tests.
2) And, how will we achieve that? Very simply. By researching the market, by designing the new product on research results, and by running pilot tests.

Why do you think point packaging (as exemplified in Sentence 2) is more effective in an oral presentation?

6. Ask the members of your group if they have had any experience with oral feedback sheets for classroom presentations. If they have, what did they like about them? What did they dislike? How does the feedback sheet shown in Table 1 differ from other feedback sheets they may have encountered? Should all the students in the class anonymously fill out such a sheet for the presenter, or should such feedback only come from the teacher?

Activities

1. Make a list of phrases that signpost a) what the presenter is about to do next and b) show cause and effect. An example has been given in each category [with variable information in brackets].

WHAT COMES NEXT	CAUSE AND EFFECT
Now, I would like to [discuss the history of this problem].	The cause of [this problem] is [not clear].

2. Indicate where pauses should occur (with //) to facilitate sound chunking in the following (slightly modified) paragraph from the reading to prepare the listener to hear the problem and the effect:

Most texts encourage students to concentrate on the different parts of a presentation, giving little or no attention to the actual delivery of the presentation. Many present typical presentation language in the form of phrases to signpost what the presenter is about to do next or how to use cause-effect mark-

ers, and most suggest the importance of using appropriate visuals. However, "an approach to teaching the so-called language of presentations which emphasizes structure and discourse and the transmission of information leads our learners badly astray," for it is usually the actual delivery of the presentation that most students find difficult.

3. Imagining that the following (slightly adapted) paragraph from the reading is delivered in an oral presentation, insert an appropriate rhetorical question at some point in the paragraph to make it more accessible to the listening audience:

   To ease the process of delivery without removing all the conversational rapport and rhetorical pizzazz that good presentations are supposed to have, BE students should also be encouraged to consider delivery strategies such as sound chunking, rhetorical questions, dramatic contrasts, exaggeration, and point packaging. These strategies will improve their 'performative competence' and create an impact on the audience by making them remember not only the content of the presentation but also its presenter.

4. Apply the convention for fronting dependent clauses described in Small Group Task 4 to the following sentences:

   a. The secretary went home after completing the report.
   b. Although the company lost a lot of money last year, its price per share is beginning to rebound.
   c. Because the CEO's husband wants to visit Italy next year, she has requested that the annual stockholders' meeting be held in Rome.
   d. The business will fail unless it changes its hiring practices.
   e. The price of imported goods will increase once the currency decreases its value.

In these examples, can you imagine a situation in which the convention might be broken for the sake of dramatic contrast?

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English for Legal Purposes

ELP

STUDENT-CENTERED ENGLISH FOR LEGAL PURPOSES

Jinny Nikkilä

Since its establishment in 1977, the University of Helsinki Language Centre has offered English oral skills and listening comprehension courses to students of law. Although hesitant about speaking due to shyness, lack of self-confidence, reluctance to make mistakes, etc., most students have studied English in school for nine or ten years, an increasing number have travelled or been exchange students, and all have been exposed to new sources of English such as law faculty lectures and satellite television programs. In order to encourage a more student centered-approach to listening in English for Legal Purposes (ELP) classes, I have recently introduced the concept of needs analysis on the first day of class, giving my students a handout which states the following:

> In this first lesson, you will probably be participating in an entirely new activity: determining the English oral skills needs of University of Helsinki law students and deciding how these needs can be met, at least partially, during this semester. You will be planning your own course, and your task is as follows: Identify three to five ways in which law students' English can or should be improved. Then list suggested activities for meeting these needs. Remember that your ideas should be ones that can be realized during this course through exercises, video, discussion, and other activities. You will work on this task in a small group.

Sitting in groups of three to four, these law students, who usually sit passively in lecture halls, begin to learn to take the initiative, to dare to make suggestions, to exchange ideas, and to think creatively in English (just like American law students!). The process is not always easy nor the progress rapid, but as each group completes its assignment, I take them to the recording studio to videotape their report on the ideas they have formulated.

As a class, we view the videotaped reports while I write the main points on a transparency. At the second class meeting, I display the transparency with its list of needs and means of meeting those needs and also another list with the dates when student teams will be

From CATESOL News 1994

presenting their projects based on the identified needs. Each team volunteers for a date and all are given class time to decide on, plan, and discuss their projects. I remain available as a resource person, not to supply project ideas but to offer information about sources of material, special room or equipment reservations, and, of course, support and encouragement.

For the first five class meetings, I select the subjects and activities for each lesson. Using the language laboratory and videotapes and involving the students in pair and group work, reports, and discussions, I concentrate on two areas: cross-cultural communication and the branches of the U.S. government, with special emphasis on the judicial branch. Class time is also allotted for the teams to work on their projects. As the projects take shape, I confer with each team to estimate how much class time they will need and what other needs they would like me to address in the classroom.

STUDENT PROJECTS

The projects inspired by my students' needs analyses have ranged from videotapes to games. Videotapes that were either commercially produced, copied from television, made during a lecture on law, or created by the students themselves are especially popular. The viewing of these tapes is generally preceded and/or followed by a vocabulary review and a discussion of the subject, e.g., the alcohol policy of Finland, the European Union, cross-cultural communication, consular law, and so on. There was a lively word game and a TV quiz show featuring legal questions from ancient to modern times. Two teams invited guest speakers to talk on living and studying abroad and on the law in Lithuania. Three teams created courtroom trials with a role for each student. To help prepare the class for the latter project, I taught the students how to play language bingo in the computer lab, for which I had supplied legal vocabulary in Finnish and English. Afterwards, they viewed a short videotaped trial set in an English courtroom, and then the student team for the week conducted the trial.

In brief evaluations at the end of the semester, students have written comments such as "inspiring," "interesting," "a pleasure," "useful," and "fun" to describe the course. Other students have said things like "Now I dare to open my mouth even though my English isn't proper," "I am more ready and willing to use English," and "I'm not afraid of speaking and using this language." Still others have made comments such as "Time went much faster than usual," "The spirit of this group has been better than good—you don't ever have to be afraid of other students' reactions," and "This course was more than I expected." It will come as no surprise that attendance in these courses has been especially high.

SHORTER PROJECTS

For groups for whom this approach might be too advanced or ambitious, I close with two one-time projects which effectively build a bridge between the classroom and the real world of English. The first project concerns current events. Whatever the purpose that brings people together, one logical topic for discussion is what's happening in the world—at the university, at a conference, in a city, in a country, or even in outer space. In order to develop the vocabulary necessary for talking about timely topics, I ask my students to bring to class a newspaper or magazine article and be prepared to translate its headline (if it is not in English) and to summarize its contents. Then a discussion is led by the student who has volunteered for that week (each student in the class leads a discussion during the semester). The subject for this more extended discussion is chosen by the student leader based on his/her interests and the actual events of the week.

An ELP oral skills course can give students all sorts of benefits, including the willingness to use the language. But what happens when the course ends? How can students keep in touch with English in order to maintain and/or improve their skills? One solution is to use contact assignments, in which students seek relevant, useful, and interesting contacts with English speakers, e.g., hosting a visiting foreign student at the university, attending an English language lecture, speaking English for the day at home, or telephoning American or British friends or relatives. I had one student who attended an English-language church service, and another who spoke English with the tourist whose wallet he found and returned. The following week, each student tells the rest of the class what he or she did. Everyone is thus furnished with a variety of ideas for staying in contact with English after the course ends.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author states that her students are "hesitant about speaking due to shyness, lack of self-confidence, reluctance to make mistakes, etc." Survey the members of your group to find out if any of these characteristics apply to them. Are some characteristics more prevalent than others?
2. Discuss the author's use of needs analysis in the first lesson rather than before the class begins, which is the more typical

sequence in developing an ESP course. What are the advantages and disadvantages of this approach? Whose needs are not addressed? What are those needs likely to be?

3. American law students are characterized as taking the initiative, daring to make suggestions, exchanging ideas, and thinking creatively. Do you think this description is accurate? Do students in different fields or occupations have different characteristics, do you think?
4. Discuss the advantages and disadvantages of video recording student presentations in the classroom. Do you think students need some exposure to being videotaped before their reports are recorded? If so, how might this be provided in the classroom?
5. Discuss the teacher's facilitating role in the classroom described in the reading. How many of the members in your group have used (as a teacher) or experienced (as a student) this kind of teaching? What are its advantages and disadvantages?
6. The topics of the first five lessons are cross-cultural communication and the branches of the U.S. government, with special emphasis on the judicial branch. Why do you think the author chose these two areas to begin her ELP class? What other legal topics might she have begun with?
7. Why do you think the author included Finnish as well as English legal terms in her version of "language bingo"? What do you think of this decision?
8. Have any of the members of your group ever used (as teachers) or experienced (as students) contact assignments? What kind of preparation do students need before they are given such assignments?

Activities

1. Devise a curriculum for conducting a trial in an ELP class. How will the topic of the trial be selected? What roles would be required? How long should the trial last? What will be the instructor's role during the trial? What will the students who do not have a role do while the trial is being conducted? How will the relative success or failure of the class be assessed?
2. Create a language bingo game using vocabulary words either from the reading, as shown below, or from some other source. Select 25 words and write each word on a small card. Make one

Sample Bingo Game Card

establishment	hesitant	shyness	confidence	reluctance
exposed	satellite	encourage	concept	participating
realized	passively	initiative	dare	rapid
formulated	transparency	volunteers	available	resource
encouragement	concentrate	branches	emphasis	judicial

game card with 5 columns and 5 rows for each student, rearranging the words on each card so that no two cards are the same. Finally, make markers (e.g., out of light cardboard) or use coins, buttons, etc. (10-15 per student). To play the game, the teacher selects one of the word cards, which have been placed in a box so that they cannot be seen, and reads it aloud to the class. The students who have that word on their game cards place a marker on it. Then the teacher selects another word card and reads it aloud, continuing this procedure until a student has five words covered in a line, either horizontally, vertically, or diagonally. When this happens, the student shouts "Bingo!" and is the winner of the game. That student can either receive a prize or become the word card reader for another round.

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ENGLISH FOR MEDICAL PURPOSES

EMP

EMP

ENGLISH FOR APHASICS

Peter Master

With an eye to discerning a possible sub-area of English for Medical Purposes, I recently undertook a tutorial project with a native English speaking woman who had suffered a stroke leading to Broca's aphasia. The woman (I'll call her Sally) had a Ph.D. in psychology and had been a practicing therapist until this devastating event occurred. Unable to spontaneously utter a word and with severe writing and comprehension difficulties, Sally worked with a speech therapist for over a year, at the end of which time she had made such progress that the therapist took it upon herself to find a way for her client to continue to improve her language skills. Together they visited several intensive ESL programs to determine which would best suit Sally's needs.

A week before Sally and her speech therapist came to our program, I had by chance watched a television program concerning aphasia. I thus had some sense of the fact that aphasics often know what they want to say but have simply lost the means to be able to say it. This helped us to establish a rapport. In talking to Sally, however, I realized that the nature of what she did and did not know would make it unsuitable for her to be in any of our regular classes. At the lower level, she would probably intimidate the other students with her reading and writing skills and her large passive vocabulary. At the middle and upper levels, she would probably feel intimidated herself because of her difficulties with complex sentences. Thus, we ultimately agreed on a tutorial.

At our first meeting, I gave Sally the Michigan English Placement Test to determine her general level of English. She got 95, which would have placed her in the most advanced class. This test is obviously not a good instrument for this kind of student. In addition, I quite consciously did not read up on aphasia nor discuss it with the therapist because I really wanted to test the efficacy of treating Sally as an ESL student.

The grammar of relative clauses seemed a good starting point because I had seen at our first interview that Sally had trouble using subordination. In fact, the therapist said that Sally could not make

From CATESOL News 1983

complex sentences. In order to see precisely what the therapist meant, I asked Sally to combine two sentences, *The man is a doctor* and *The man lives next door.* After obviously applying intense effort, she responded, "The man is a doctor and he lives next door."

I acknowledged the correctness of her coordinated sentence and attempted to explain in simple language that the English language had a mechanism for linking two ideas together in such a way as to give one of them greater importance. Could she combine the two sentences to show this? She thought for a moment but said she could not. I then asked her to try using the word *who.* She immediately responded, "The man who is a doctor lives next door." Having acknowledged her correct response, I pointed out that this sentence could be changed to indicate the greater importance of the man's being a doctor than of his living next door, and Sally immediately responded, "The man who lives next door is a doctor." This exchange suggested that what Sally lacked was not the ability to make complex sentences but the ready ability to supply the subordinator necessary to do so. Once given the subordinator, she could use it correctly for a given situation and was able to remember it after it had been explained, something I initially feared would not be the case.

We met three hours a week, working first on all aspects of relative clauses, then adverbial clauses and other forms of subordination, using Frank (1972) and Taylor (1956). At the tenth lesson, we started to focus on prepositions as she had had difficulties with these as well as other function words. We decided to do an exercise in Taylor (1956) in which the correct preposition must be inserted in a common idiomatic expression (e.g., "We must leave ___ once."). Sally blurted out the correct answer to the first sentence almost before she was ready to say it. She looked at me and said, "Where did that come from?" As we continued the exercise, and as she continued to get practically every response correct, she became very excited and said that it was as if veils were being lifted for her. In my opinion, this event was evidence of the fact that Sally's linguistic intuition was largely intact and that part of my job was simply to get her to trust her own innate knowledge.

Sally's early writing consisted mostly of coordinate sentences, but by the end of two months of work with her, she was writing about her former patients in a manner fairly similar to what she showed me had been typical reports that she had written as a therapist. At that point, I passed Sally on to another ESL teacher because of other projects I had become involved in. The new teacher continues to use ESL techniques, and Sally continues to improve. Her goal is to become a practicing therapist again. Mine was to investigate a potential new area of ESP.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons and prepare a group speaker to give a public response to the rest of the class.

1. Discuss the author's decision not to allow the native-English-speaking aphasic student to enter a regular ESL class. Do you agree with the decision? Was it a responsible one?
2. Why did the author state that the Michigan English Placement Test was "obviously not a good instrument for this kind of student"? Do you agree with this statement?
3. What is a subordinator? Identify the subordinator in the sentence *The man who lives next door is a doctor.*
4. What is a function word? What parts of speech do they include? What is a content word? What parts of speech do they include? From your experience, which are easier to learn in a second language?
5. What is a coordinate sentence? Is there a parallel between Sally's early writing and that of second language learners?
6. The author states,"Sally's early writing consisted mostly of coordinate sentences, but by the end of two months of work with her, she was writing about her former patients in a manner fairly similar to what she showed me had been typical reports that she had written as a therapist." How do you think Sally's later writing differed from her earlier writing? Is the same process observable in developing second language writers?
7. The author states, "Part of my job was simply to get her to trust her own innate knowledge." To what extent is this also the job of an ESP instructor? Can you think of an example in your own or your students' learning?
8. The author states that his goal was to "investigate a potential new area of ESP." Do you think teaching a native-English speaking aphasic certain aspects of her native language should count as ESP? Why or why not?

Activities

1. Show by a series of logical steps the syntactic process by which the two sentences *The man is a doctor* and *The man lives next door* are combined to generate the sentence *The man who lives*

next door is a doctor. Then use the same series of steps to generate the sentence *The man who is a doctor lives next door.*

2. Coordination and subordination are the two most common means of combining simple sentences in English. Complete the following chart with an appropriate form of coordination or subordination.

COORDINATION	SUBORDINATION
The man lives next door and the man is a doctor.	The man who lives next door is a doctor.
The nurse finished her charts. Then she went home.	
	Pierre studies English because he needs it for his work.
The surgeon may find a tumor. In that case, she will remove it.	
	Although a heart transplant is a risky procedure, it has saved the lives of many people.

3. Create a fill-in-the-blanks preposition exercise for these time-related idiomatic phrases.

on time	at last
in time	at first
in the long run	at the moment
before long	after a while
plenty of time	on the weekend

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ENGLISH FOR NURSING PROFESSIONALS

Jenifer Burckett-Picker

The English for Nursing Professionals (ENP) course offered last spring in Tijuana, Mexico was organized as part of a grant entitled "Binational Communicative Skills Project." The aim of this project was binational cooperation for the improvement of border health care in the San Diego (California, USA)-Tijuana area. A course in Spanish for U.S. nursing professionals was taught concurrently in San Diego for U.S. nurses.

NEEDS ANALYSIS

Planning for the ENP course started by distributing a needs assessment at four major medical centers/hospitals in Tijuana. The results revealed a high level of interest in and need for an ENP class. The needs assessment also indicated the nurses' most pressing needs in English skills and reasons why former classes had failed to meet those needs. Specifically, Tijuana nurses wanted to use English to be able to communicate with their U.S. colleagues on both a professional and personal level. The nurses indicated that previous English courses had been too grammatically-oriented with not enough emphasis on oral communication and that the time and location of classes had not been convenient. Additionally, there had been no continued opportunities to practice their English and no on-going contacts with U.S. nurses. The major goals of the ENP course, therefore, were to provide the Tijuana nurses with 1) practical basic oral communicative skills for both professional and personal use; and 2) contacts with San Diego nursing professionals to set up the means for continued contacts after the course was over.

These goals were accomplished by providing the students with a syllabus that stressed communicative function over structure. All instruction was in English and somewhat similar to Krashen's and Terrell's *Natural Approach*. Initial communication stressed biographical information. Later came a description of their jobs in their own hospitals (type of work, hours/days worked, days off, duties, etc.) and, finally, their future plans and needs in the area of border health care (e.g., desire for further study in nursing specialities, description of biggest health problems in Tijuana, ways U.S. nurses could help).

From CATESOL News 1986

Weekly three-hour classes at the General Hospital in Tijuana over a 15-week semester were supplemented by a joint meeting of U.S. and Mexican nurses once a month. These meetings held alternatively in San Diego and Tijuana provided the nursing professionals from each country with a chance to interact personally with their counterparts and to practice their newly-acquired language skills. These monthly meetings were the most motivating factor in the whole course and were looked forward to with great anticipation. At each joint meeting there was an initial structured portion of interactive language activities followed by a more informal period of unstructured language use and dinner. Structured activities included small group interviews (one Mexican, one U.S.) in which students had to obtain information from each other (e.g., *What's your name? Where were you born? Where do you work? What's your job there?*) and then share it with the class, and a scavenger hunt game in which students had to ask questions of others in order to obtain answers to particular questions (e.g., *Who works in a public health clinic in El Cajon? What is the address of University Hospital? Who has three sons? Who lives in the U.S. but works in Tijuana?*).

Although this basic ENP course consisted of only 45 hours of class time and, therefore, provided students with only the most rudimentary speaking skills, there was a marked increase in their listening comprehension as measured on pre- and post-tests. However, the most important outcome of this ENP course for the Mexican nurses, as indicated on course evaluations, was the personal contact with U.S. nurses and the opportunity for on-going language use and cross-border visits. Thus it seems that this language course indeed provided a means for better communication among border health care professionals.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What do you think was the nature of the needs assessment instrument distributed at the four major medical centers/hospitals in Tijuana? In which language do you think the instrument was written? Was this appropriate under the circumstances? Why or why not?
2. This article was written in 1986 when the notion of needs analysis was not yet fully developed. We now believe that the ESP course designer needs to consider the needs of the job, the needs of the supervisor and/or boss, the needs of the field, pro-

fession, marketplace, or product, the needs of the institution, and the needs of the student in order to produce a successful ESP course. Which of the needs does the author of this article identify? What needs are not addressed? How would you go about determining these needs? Did the failure to identify these needs affect the course?

3. What appeared to be the most motivating factor for the Mexican nurses? What was the purpose of the initial structured portion of interactive language activities? Since motivation is one of the prime justifications for ESP, what does this suggest about the structure of ESP courses?
4. The scavenger hunt is based on a children's game. What is your opinion about the use of such games in an adult second language class? What are the benefits of a game such as this? What are the dangers?
5. One of the greatest criticisms of ESP is its failure to provide empirical (rather than simply anecdotal) evidence of its effectiveness. The ENP class described in this article is an exception. What proof did the author provide for the effectiveness of this course? What else would you have liked to know?

Activities

1. Every sentence in English can be divided into a subject and a predicate (in linguistic terms, S → NP VP). WH-questions (or information questions) are divided into two types based on the subject/predicate distinction. They are called the subject-form (S-form) and the predicate-form (P-form).

   a. S-FORM **Who** called the doctor? Answer: **Mary** called the doctor.

   [Notice that the WH-question *who* is the <u>subject</u> of the verb *called* and is also the <u>subject</u> of the answer sentence].

   b. P-FORM **What** did the doctor order? Answer: The doctor ordered **an x-ray**.

   [Notice that the WH-question *what* is in the <u>predicate</u> of the verb *ordered* and is also in the <u>predicate</u> of the answer sentence].

Identify the questions used in the structured interactive language activities and in the scavenger hunt game as either S-form or P-form by placing an S or a P in front of the question:

1. ___ What's your name?
2. ___ Where were you born?
3. ___ Where do you work?
4. ___ What's your job there?
5. ___ Who works in a public health clinic in El Cajon?
6. ___ What is the address of University Hospital?
7. ___ Who has three sons?
8. ___ Who lives in the U.S. but works in Tijuana?

Create two S-form and two P-form questions of your own, one of each type for the language activity and one of each type for the scavenger hunt game:

1. S ______________________________
2. P ______________________________
3. S ______________________________
4. P ______________________________

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EMP

ABBREVIATIONS IN ENGLISH FOR MEDICAL PURPOSES

Trish Bedrosian

Due to time and space constraints in writing medical records, the simplification and condensation of considerable amounts of information through abbreviation is a necessary strategy. However, although many non-native-English-speaking medical personnel, students, and residents enter the U.S. health care systems yearly, they often lack the knowledge to produce or decipher abbreviations in the medical register. The purpose of this study was to gain insight into how the medical background knowledge of such students might be tapped to provide a means for EMP teachers to help them write accurate, comprehensible, and concise medical records.

The corpus for the study consisted of thirteen hospital "history and physicals" documents written by both a native-English-speaking obstetrics resident and a highly-English-proficient non-native family practice resident who were in their last year of residency. A history and physicals document shows how a clinician assessed the patient, what plans were made on his or her behalf, and what actions were taken (Bates, 1983). The documents used in this study were produced in the emergency room at the time of admission to the hospital. The history and physicals document is not under strict legal regulations concerning abbreviations and thus allows much room for variation.

TYPES OF ABBREVIATIONS

The types of abbreviations that were noted can be classified into 1) those that are accepted within the medical community as a whole, 2) those that are specialty specific, 3) those that were entirely idiosyncratic, and 4) those that have multiple significations. A large number of abbreviations are widely used in medical literature and can be considered conventional to all areas of medicine. Many of the conventional abbreviations have been borrowed from pharmacology and laboratory tests. Examples include *pt* for "patient," *qd* for "every day," and *c-o* for "complained of".

Some abbreviations only occurred within the area of specialty. For example, the sequence G __ P __ A __ L __ in obstetrics refers to

From CATESOL News 1989

gravida (pregnancies), *para* (deliveries), abortions, and live births in reporting a woman's obstetrical history. Other abbreviations in the adult medical charts, such as *sz* for "seizure," never appeared in the obstetrical charts. However, if a woman was pregnant but also had a history of seizure, the term would be likely to show up in an obstetrical history and physicals document as an abbreviation.

Still other medical abbreviations appeared to be purely idiosyncratic. The use of *HA* for Hispanic American was found in the non-native resident's charts, whereas the native resident used the term *hisp.* However, other medical personnel said they were able to understand either abbreviation due to its context and location in the document.

Inconsistencies were found in the charts of both residents. They included variations in 1) the use of upper and lower case letters, 2) the abbreviation or non-abbreviation of a particular word, and 3) the nature of the terms abbreviated. Identical abbreviations for different words occurred in all the samples collected. Interestingly, such "homophonic" abbreviations always occurred in different sections of the document. The division heading or section of the document prevented the trained reader from confusing what was being expressed. For example, the term *PPD* was used both for "purified protein derivative" (the skin test for detecting tuberculosis) and packs per day (referring to cigarettes). However, the former was followed by the words "skin test" and the latter came under the division title "Habits," thus providing the context for correct interpretation. It is significant to note that *PPD* for "packs per day" was an idiosyncratic abbreviation that was completely comprehensible to other medical personnel. The divisions of a history and physicals document, the majority of which concern different subsections of the body, appeared to have their own specific abbreviations. For example, under the heading "Eyes," *OD* was used to indicate "right eye," *OF* was used to indicate "left eye," and *PERRL* was used to indicate "pupils equal round reactive to light."

PEDAGOGICAL APPLICATIONS

The basic conclusion of this study is that identifying the varied subregisters within a medical specialty is important when teaching the use of abbreviations in EMP. Even within one specialty, the abbreviations depend specifically on what is being written about. To address this need, an EMP instructor must provide a context in which appropriate abbreviations are acceptable and teach them according to the specialty or area of physical assessment (i.e., part of the body) and where they occur in a medical report. For example, taking one area of the history and physicals document such as "The

Heart" and teaching the abbreviations that normally fall under this category (e.g., *RRR* for "regular rate in rhythm"; *+m* for "heart murmur present") places the abbreviations in context and thus provides a means for students to remember them.

The process approach can be applied in teaching medical abbreviations. Prewriting activities include brainstorming the physical assessments that might be made of one part of the body and written up in the corresponding section of a medical document. The abbreviations are then introduced that correspond to that area of the body or section of the document. Other prewriting activities include role-playing mock interviews of patients, which the student must then write up, analyzing models of acceptable history and physicals documents and reading narrative case studies. Cloze tests in the form of a sample history and physicals document in which students fill in an appropriate abbreviation based on a written case study or a role-played patient interview are also beneficial. Students can then be asked to write a brief report or section of a history and physicals document using appropriate abbreviations. Bringing copies of the actual history and physicals documents they have written into the classroom is ideal if hospital regulations permit it.

A knowledge of the general and specialty-specific conventions in medical abbreviations with attention not only to their form but to the variations they can undergo is essential for foreign medical personnel and appropriate material for instruction in EMP classes.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Why do you think the author chose to study medical documents written by both a native and a non-native speaker of English? Why was a "history and physicals" document selected as the focus of study?
2. The author states that medical personnel were able to understand an idiosyncratic abbreviation "due to its context and location in the document." Such knowledge of the structure of a written document is known as *formal schema* (in contrast to *content schema*, which is organized knowledge of subject matter). What other aspects of language might a teacher (or a stu-

dent) be able to understand based simply on context and location in a document?

3. How were medical personnel able to understand "homophonic" abbreviations?
4. What is meant by the "process approach"? What are "prewriting activities"?
5. Role play is an important classroom activity in ESP. What is the topic of the role play suggested in this article? What other topics do you think would be appropriate in an EMP class?
6. A cloze test (a paragraph with regular blanks to fill in) was created in the form of a history and physicals document and actual history and physicals documents were brought into the classroom. What important feature of ESP do such classroom materials exemplify?

Activities

1. The categories of abbreviations described are not unique to the field of medicine. Which of the following descriptive categories would the following pairs of abbreviations belong to?

a) accepted within a community as a whole b) specialty specific c) entirely idiosyncratic

1. __ oz. = ounce		__ oz. = ozone
2. __ pres. = present		__ pres. = president
3. __ l. = line		__ l. = liter
4. __ trans. = transitive		__ trans. = translation
5. __ d. = day		__ d. = died
6. __ F. = French		__ F. = Fahrenheit
7. __ doz. = doctors		__ doz. = dozen
8. __ sp. = species		__ sp. = spelling

2. What language other than English is the source of medical abbreviations in this article? Find examples in the text. There is one example of both languages in a single abbreviation and one abbreviation that makes use of a sign in addition to a letter. Can you find them?

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EMP

COMMUNICATION SKILLS FOR INTERNATIONAL PHARMACY STUDENTS

Kathleen A. Johnson

INTRODUCTION

In January of 1984, I joined the faculty at the University of Southem California, School of Pharmacy. Shortly thereafter, as one of the faculty that co-coordinates an experiential training program in community pharmacy practice, I became aware of complaints from numerous preceptors about the lack of communication skills exhibited especially by non-native pharmacy students. Looking further into the nature of these complaints, I discovered that there appeared to be the need to develop a communication course to assist students in developing skills which are used by pharmacists in daily practice. In addition, there appeared to be a need to assist preceptors in teaching the students to have good communication skills in practice. With the support of other faculty, and the administration of the school and the help of Bernard Seal from the American Language Institute (ALI) at the University of Southern California (USC), we began a special communication skills course for all students during the first professional year of pharmacy school.

SCREENING FOR NON-NATIVE SECTION OF COURSE

It was decided that a screening exam would be given to all entering students to determine placement into native and non-native sections of the course. The course consisted of material which covered basic communication skills useful to all pharmacy practitioners regardless of language ability. The non-native section was taught as a "parallel" course and team taught by a pharmacy school faculty member and an ESL teacher.

A difficult task was to determine how to evaluate the English communication skills of the students. During the first year, the TOEFL exam was administered to all students identified as non-native English speakers. Of all the students taking the exam (approximately 80), only two would have been required to take an advanced level ESL course based on the results of the exam. The rest "tested out" of the need for further ESL coursework. This result was not particularly surprising since the majority of students had taken at least two years of pre-pharmacy coursework at a college or university in the U.S. and were quite competent at reading and taking written exams in English. Thus the TOEFL exam was not able to assess oral proficiency or the ability to be an effective communicator in a professional practice setting.

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The final screening exam consisted of: a questionnaire about year of arrival in the U.S., number of years of attending U.S. schools, country of origin, and language(s) spoken at home. From this questionnaire, certain students were given oral interviews, a vocabulary test, and asked to write a short essay. The ALI department at USC administered these tests and assessed the need for the ESL section of the course.

COURSE CONTENT

The course is taught in conjunction with an experiential training program (externship), where students spend three afternoons per week in a community pharmacy with a pharmacist. This experience lasts for four weeks. The externship is meant to be an introductory experience during the first professional year in pharmacy school. The skills learned can then be applied throughout the four years of pharmacy school and during internship. The class meets the week prior to the externship and each week during the externship for approximately two hours each session. The course covers: (1) the importance of good communications skills (verbal and nonverbal) for the practice of pharmacy, including overcoming shyness, introducing oneself to coworkers, professionalism, and expectations for the student and preceptor; (2) basic drug information including the pronunciation of drugs, typical uses, and auxiliary labels used in communicating drug information to patients; (3) telephone communication skills and their importance in pharmacy practice; (4) one-on-one patient counseling skills, and the language used in patient counseling; and (5) ethical and other special issues confronting pharmacists. The final session of the externship consists of evaluation of the course and closing comments. Each week homework is assigned which complements what has been or what will be discussed. The homework requires the student to obtain information while at the pharmacy. For example, prior to the session on telephone skills, the student should observe who calls the pharmacy, who answers the phone, what is said, and how various situations are handled. The course utilizes small group interactions and role playing. The ESL section also emphasizes cultural differences in communication, pronunciation and some medical vocabulary. A more complete description of the course and of similar courses taught at two other pharmacy schools is available in Beardsley, et al. (1987).

TEACHING SUGGESTIONS

There are a number of practical suggestions for teaching this type of course. One barrier which may be encountered is the nature of pharmacy practice in many countries. Most people's image of a pharma-

cist, including the real image in other countries, is not one which emphasizes "clinical" or patient-oriented pharmacy practice. Rather, many countries still emphasize the role of the pharmacist in compounding and manufacturing chemical products, where the need for the types of communication skills taught in this course is not so great. Thus, there is a need to make the material relevant by discussing contemporary pharmacy practice and utilizing real practice situations where the importance of communication can be seen and practiced. In addition, much of the coursework requires the knowledge of technical information which may not be familiar to non-pharmacy faculty. Thus we found the team-taught approach to be particularly effective. Students also appreciated the opportunity to learn real "pharmacist" skills while at the same time improving communication ability. Finally, a number of resources in the pharmacy area are available which may assist in the development of relevant course material (Tindal et al. 1985, Bernstein & Bernstein 1980, Russell et al. 1982, AACP/Eli Lilly Communication Project 1985, and Roche Laboratories/Apha 1982).

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the needs analysis that was performed as a foundation for the course. Was it adequately triangulated? What other sources of information might the author have consulted to determine needs?
2. What kind of initial screening exam do you think would be appropriate for the pharmacy students in this program?
3. What is meant by a "parallel" course?
4. Why was the TOEFL exam not successful in determining the needs of the students?
5. Discuss the nature of the final screening exam. Is it appropriate to determine what tests students should have to take based on how they answer a questionnaire?
6. Discuss the four-week externship described in the article. What are the advantages of such a program? Can you imagine any difficulties the students might have?
7. The class described is a mixture of English for Sociocultural Purposes (ESCP) and EMP (English for Medical Purposes). Assign each area below to one of these two categories.

   a. the importance of good communications skills (verbal and nonverbal) for the practice of pharmacy, including overcoming shyness, introducing oneself to coworkers, professionalism, and expectations for the student and preceptor
   b. basic drug information including the pronunciation of drugs, typical uses, and auxiliary labels used in communicating drug information to patients
   c. telephone communication skills and their importance in pharmacy practice
   d. one-on-one patient counseling skills, and the language used in patient counseling
   e. ethical and other special issues confronting pharmacists

8. In what ways is the telephone unit a much more complete introduction to specific telephoning skills than normally encountered in a Survival Skills class?
9. Discuss how small groups would be used in a class such as this. What specific group tasks might they be assigned?
10. Is the image of a pharmacist described in the article similar to or different from the image of a pharmacist in your country?
11. What is the rationale for team-teaching (also known as the adjunct model) in this situation?

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ESP FOR PHYSIOTHERAPY

Michal Kirschner

The course "ESP for Physiotherapy" was developed at Tel Aviv University in Israel and thus represents ESP in an EFL as opposed to an ESL setting, which is the case for most ESP instruction in the world. In Israeli universities, while content courses are conducted in Hebrew and students do their written and oral assignments in Hebrew, most reading assignments in content courses (e.g., Introduction to Psychology, Anatomy) are in English. In order to meet academic requirements, students therefore need a very high level of proficiency in reading comprehension in English in their specific fields.

DESIGNING THE COURSE

Since the focus of ESP for Physiotherapy was reading, the first step in designing the course was to acquire appropriate texts of the type that students would actually need to deal with in their content courses and to determine what the students were expected to do with them. This was accomplished by asking the faculty for course reading lists, major journals in the field, and other references, and what tasks the students would have to perform with the texts. According to one instructor, the tasks included being able to read the anatomy book, define all the concepts, and understand the connections between them. According to another, since the student would be tested on the main concepts and issues in several chapters, the student should be capable of understanding a long text, taking notes while reading, and making a concise summary or other form of information transfer as an aid in studying for the exam.

With these specific tasks in mind, the next step was to analyze the texts obtained in order to identify typical features or systematic patterns which were relevant to the students' needs and which would be perceived by students (and myself) as appropriate teaching points in a course syllabus. I found that this particular course could be loosely organized according to the various genres commonly encountered in the field. These included the textbook, the empirical research article, the case study, the book review, and the problem-solution article, an analysis of which, together with input from the content-course instructors, yielded a list of tasks and language skills that students needed to master.

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DEALING WITH NEW CONTENT

Many of the empirical research articles and case studies deemed appropriate for the course made references to concepts that were unfamiliar to me and, I presumed, to the students, as most of them were freshmen who did not yet have extensive knowledge of the field. A solution to this problem was to precede the reading of each of these texts with a chapter from an introductory textbook which not only introduced and elaborated on the unfamiliar concepts in a way that was readily comprehensible to the students but also served to facilitate vocabulary and language learning and thus simulate an authentic reading and learning situation. For example, a chapter entitled "Aphasia, Apraxia and Agnosia" (Chusid, 1976) was followed immediately by three case studies from a journal article entitled "Aphasia Associated with Verified Subcortical Lesions" (Rotblatt-Lieberman, et al., 1986), the first text providing detailed definitions and classifications of aphasia presupposed by the second text.

LANGUAGE ACTIVITIES

The two thematically-linked texts also lent themselves well to activities on two levels of text processing: vocabulary skills and global processing skills. Vocabulary skills included the study of roots and prefixes and medical terms. The first of the two texts facilitated a review of common Greek and Latin roots and prefixes, especially negative prefixes (*non-*, *mis-*, *dis-*, *ab-*, *un-*, *in-*, etc.), which can aid in guessing meaning from context. This text also contains many lexical items pertaining to illness (e.g., *lesion, paralysis, impairment, disorder, defect, to incapacitate*) that are common in medical literature. Although such vocabulary work may seem tedious, students perceive it to be legitimate because they encounter much of this vocabulary in the second, more difficult text and because they were often already experiencing difficulty with such items in their content-course readings. Moreover, such vocabulary work is firmly embedded in an authentic text and reading task and is thus consistent with the notion of authenticity widely discussed in the literature (e.g., Widdowson, 1978; Nuttal, 1982; Hutchinson and Waters, 1987; Adamson, 1990; Master, 1992; Kirschner, 1992).

Global processing skills involve dealing with the text as a whole. In both texts, the graphic conventions (subtitles, boldfacing, tables, captions, etc.) facilitate comprehension of the text's global organization. In addition, both texts lend themselves to activities in which students integrate detailed information from various parts of the text in the form of a table. An activity suitable for the case studies in the second text, which is also applicable to other genres such as the empirical research article, is to have students generate questions that

all three case studies answer. These questions serve to identify what the three cases have in common and help students to see the hierarchical organization of the text. In my experience, students perceive such an activity as relevant to their needs since it teaches them how to manage lengthy and seemingly unrelated texts.

CONCLUSION

While such an approach solves the problems of student motivation and unfamiliar content, it highlights the fact that designing and teaching relevant ESP courses at a high level of linguistic and conceptual complexity must be tailored to each field and, perhaps, to each teaching situation. Although theoretical literature is available in some cases (e.g., Courtney, 1988; Swales, 1990), publications of a highly practical nature that are directly applicable to course design and classroom activities are for the most part unavailable. Thus, the only way to refine the course is to revise it with each successive administration. Finally, although the course described does take place in an EFL situation, many of the issues are also pertinent in an ESL context. This is exemplified in Jacoby, et. al. (in press), who describe an ESL writing course for graduate science students who were taught the specific genre of the empirical research article.

ACKNOWLEDGMENT

I would like to thank Elana Spector-Cohen for her helpful comments.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the author's statement that most ESP instruction in the world is carried out in an EFL (as opposed to an ESL) setting. Will the language spoken in that setting affect the nature of the ESP instruction? What kinds of ESP might be carried out in an ESL setting?
2. In Israel, most classes are conducted in Hebrew, while most reading assignments are in English. Ask your international classmates if this is typical for all ESP situations. What kinds of problems do you think might arise in such a situation?
3. The physiotherapy class focuses primarily on the skill of reading. Some believe language learning is successful only when all four skills (i.e., reading, writing, listening, and speaking) are taught together. Discuss this contrast. How would you justify the focus on a single skill?
4. Discuss the author's statement that the vocabulary work is "consistent with the notion of authenticity widely discussed in the literature." What is authenticity? Why do you think it is so widely discussed in the literature? What is the role of simplified texts in language learning and how does their use conflict with the notion of authenticity?
5. The author states that "publications of a highly practical nature that are directly applicable to course design and classroom activities are for the most part unavailable"? What does this imply about the nature of ESP instruction?

Activities

1. Find medical terms that are constructed from the following Greek and Latin prefixes:

anti-	*auto-*	*bi-*	*con-*	*de-*	*ex-*	*in-*	*inter-*
macro-	*micro-*	*mis-*	*mono-*	*post-*	*pre-*	*re-*	*sub-*
trans-	*uni-*	*un-*	*ultra-*				

2. Avoiding terms for specific illnesses, pathogens, or medicines (e.g., *cancer, the HIV virus, penicillin*), expand the list of six general lexical items pertaining to illness from your own general knowledge until you have 20 words (e.g., *infection, inflammation, contagious*). Then categorize the words into relevant groups. For example, *impairment, disorder,* and *incapacitate* are often associated with mental rather than physical ailments.
3. Select an article or case study of your choice (and interest) from a current medical research journal (e.g., *The New England Journal of Medicine*). Then find in an introductory textbook a segment that would serve as an introduction to the reading of that article in an EMP class. Finally, generate three questions that both texts answer.

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ENGLISH FOR MEDICAL PURPOSES IN CUBA: ADDRESSING THE NEEDS OF DOCTORS WHO GO ABROAD

Mary Louise Valdés Montes de Oca

There has been an increasing demand for English for Medical Purposes (EMP) courses for doctors and other scientific personnel associated with medicine in Cuba. Many Cuban doctors have been offered posts in countries where English is the first or second language. Others await training courses in such countries or have been invited to attend medical events or to publish their research in medical journals in English. These doctors need English language instruction in order to successfully accomplish their tasks as physicians and teachers abroad.

At the Cienfuegos Medical School in central Cuba, EFL courses were always part of the undergraduate program. The main objective in these courses was the acquisition of reading skills and students were able to acquire a good general level of reading proficiency. However, undergraduates were not taught to communicate orally with English speakers. They never practiced the role of a doctor interviewing a patient, for example, nor were they acquainted with the layman's terms for illnesses and their symptoms.

NEEDS ANALYSIS: PHASE I

In 1984, general English textbooks with a more communicative approach to teaching began to be used in the programs for undergraduate students before they began to study traditional medical texts such as *Practical Medicine* and *Practical Surgery*. Three years later, EFL courses were also offered to doctors as part of their postgraduate studies. These courses were based on the grammatical and medical topics presented in the textbooks. Students who enrolled were from a wide range of specialties, such as neurology, anesthesiology, gynecology, and pediatrics. There were also dentists, nurses, and teachers of anatomy, histology, and biochemistry. We teachers were faced with the difficult task of trying to satisfy all the students' linguistic needs as doctors and specialists.

With the intention of simulating "real life" situations, we gave students opportunities in the classroom to carry out interviews with patients and to discuss case histories and general health problems related to their specialties. In preparing for these activities, we spent long hours studying medical terminology, reading medical journals, consulting physicians about different pathologies, and visiting hospi-

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tals to learn how procedures such as case discussions and ward rounds were carried out. However, the students themselves were not consulted before initiating the courses. Therefore, they were not truly designed according to the students' specific needs, and their objectives for enrolling in the courses were only partially fulfilled.

NEEDS ANALYSIS: PHASE II

In a new effort to incorporate English-language instruction that more closely meets the specific needs of students who plan to go abroad for various reasons after their studies, we are presently undertaking a needs analysis that will be carried out with all future students. This will include questionnaires, interviews, and a skills assessment test similar to one recommended by Allwright and Allwright (1977), which provides information as to how students perceive their learning needs.

To obtain firsthand information about the English-contact situations that may arise abroad, we plan first to interview doctors who have already practiced medicine in English-speaking countries or have participated in medical events or training courses where English was spoken. These interviews will permit us to learn more about the doctors' personal experiences abroad, including whom they generally spoke English with, how they used English on a daily basis, and what their major language difficulties were. The interviewees will also be asked to provide background information about the different countries they have visited. We plan to find further data about these countries, e.g., the major illnesses and health problems that occur there, and then use all this information as a source of topics for class discussions and other activities.

The second step will be the identification of our students' learning needs, that is, what they lack in a language as compared to what they already know (cf. Hutchinson and Waters, 1987). The questionnaires and the interviews will give us valuable information about the learning needs as well as the personal interests and expectations of each student.

The third step will be the identification of our students' tasks in the target country. Since they will all be practicing medicine, they will most probably carry out such activities as patient interviews and case discussions. However, their specific tasks as specialists will also have to be analyzed. The daily activities of an obstetrician will differ from those of a cardiologist. Both will need to interview their patients and discuss their histories, but the obstetrician will have to assist women in labor whereas the cardiologist may need to assist patients in intensive care units. Consequently, both the common needs of doctors and their different activities as specialists will be

analyzed. The results of our needs analysis will help us to determine the goals and content of the courses as well as the materials to be sought or designed and the strategies and techniques to be used. This needs analysis will be the hub around which all the components of the EMP courses evolve.

We see the teachers who are carrying out the needs analysis for these courses as tailors. First they measure a customer; then they cut and sew the suit according to the customer's measurements. The customer then tries on the suit to see if it fits. If it does not fit, adjustments must be made until the suit is finished. This ongoing process will be a new experience for us but one we are sure will be well worth the time and effort.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What are the primary spoken needs of doctors in Cuba?
2. Whose needs were not considered in designing the first phase of the EMP course? Is this surprising? Why or why not?
3. How do the needs identified in Phase I differ from the needs identified in Phase II?
4. Do you see any flaws in the needs analysis that the course designers plan to carry out? Are there any needs that have been forgotten? Are there any needs that will not be worth the effort?
5. What is the "tailor" metaphor? Is it appropriate for all types of ESP?

Activities

1. Brainstorm a list of five language needs of each of the following medical professionals.

DOCTORS	DENTISTS	NURSES
1.		
2.		
3.		
4.		
5.		

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ENGLISH FOR SCIENCE AND TECHNOLOGY

EST

GRAMMAR IN EST

Peter Master

Teaching grammar in EST is much like teaching any intermediate to advanced grammar class. The only difference is that explanations and examples are presented in as many scientific and technical contexts as possible. Nevertheless, certain areas of grammar are rather more important because they have special applications in scientific writing. They include the articles, relative clauses, noun compounds, and the passive voice.

The articles (*a/an*, *the*, and Ø, the zero article) are a persistent difficulty, even for students whose native language is European in origin. The articles must be taught in context, not in isolated phrases or sentences, as they can often be predicted via first vs. second mention of the noun phrase. They should be taught systematically and frequently, in small doses, until their use becomes as automatic as possible. One special application occurs in measurement contexts wherein the indefinite article *a* is used with a normally uncountable noun:

- Atmospheric pressure decreases with elevation.
- A pressure of 521 mm. was measured at 10,000 feet.

Relative clauses, as postmodifiers of noun phrases, are important in EST because scientific writing, unlike nontechnical prose, tends to place greater weight on the noun than the verb phrase. Swales (1971) states that "about a third of all scientific statements have *is* or *are* as the main verb... The other very common verb in scientific statements is the main verb *have*" (p. 2). In addition to reviewing subject-form and object-form relative clauses as a means to understanding the pervasive reduced forms, a clear knowledge of the defining (restrictive) and non-defining (non-restrictive) distinction is essential.

Noun compounds represent the ultimate reduction of relative clauses. However, only definitions are reduced this far. In fact, noun compounds may be considered highly compressed definitions, and their classification corresponds to the various means by which one species is differentiated from another (i.e., characteristics, composition, function (how it works), purpose, location, time, resemblance, and inventor). For example, *a rod which is used to control fission in a nuclear reactor and is made of cadmium* is *a cadmium control rod* (composition + purpose). Notice that the noun compound is decoded in reverse. Noun compounds are important in EST because they are so frequently used, but their decoding often requires considerable knowledge of a specific field. One structural problem that occurs for

From CATESOL News 1982

students arises from a misunderstanding that the final word in the compound is the root of the noun phrase. Hence, a *car battery* is a kind of battery, not a kind of car.

The passive voice accounts for approximately one third of all verb forms in scientific writing. By far the most common error is the failure to include *be* in the passive verb structure, which must be reviewed continually. While the transformation of any sentence from active to passive may be helpful, especially in discussing mistakes, a far more useful exercise is one in which the student must choose whether a given verb should be passive or not. Typical errors that arise from such an exercise include the confusion of *used to* for *be used to, comprise* for *be comprised of*, and the incorrect forms *is happened, is occurred, is consisted of*, and *is resulted in*. In general, the subject of the controlling sentence in a paragraph determines the use of the active or passive voice. In this example from a student composition,

> Heat exchangers are very common in the chemical industry, and we can also find them in many domestic capacities.

the verb *find* should be passive as the subject *we* is clearly of less import than the object *them*.

> Heat exchangers are very common in the chemical industry, and they can also be found in many domestic capacities.

These are just some of the areas of grammar that are important in EST.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What is meant by a "count" noun and a "noncount" noun? How can you tell which form of the word *pressure* is count and which noncount in the sentences provided?
2. Define the following grammatical terms:

    a. subject-form relative clause
    b. object-form relative clause (also known as *predicate-form*)
    c. defining relative clause (known more commonly as *restrictive*)
    d. nondefining relative clause (known more commonly as *non-restrictive*)
    e. reduced relative clause

3. What does the author mean when he says that a noun compound is "decoded in reverse"?
4. Why might students with certain first language backgrounds have problems understanding the meaning of a term like *car battery*?
5. How would you change the sentence *Heat exchangers are very common in the chemical industry,* and *we can also find them in many domestic capacities* if the subject of the controlling sentence were *we* instead of *heat exchangers*?

Activities

1. Count the number of uses of *a* or *an*, the number of uses of *the*, and the number of uses of Ø in the reading. Which is the most frequent?
2. Find five examples of count nouns and five examples of noncount nouns in the reading.
3. Make a list of all the relative clauses in the reading. Classify each relative clause as subject-form or object-form. Which is more common? Then identify whether the relative clause is defining (restrictive) or nondefining (nonrestrictive). Which is more common? Did you find any reduced relative clauses?
4. Make a list of all the noun compounds in the reading. Classify each noun compound as showing characteristics, composition, function (how it works), purpose, location, time, resemblance, and inventor. For example, *grammar class* shows purpose: it is a class whose purpose is to teach grammar. Which is the most common type?
5. Underline all the finite (i.e., those with a visible subject) verb structures in the reading. Then place each one into the following classification grid. Stative verbs are verbs which show inert perception or cognition (e.g., *believe, feel, know, see*) or relation (e.g., be, *contain, have, include, involve, link, relate to*). "Sent." indicates the sentence number in the reading.

	Main Clause Verbs			Subordinate Clause Verbs		
Sent.	Active	Passive	Stative	Active	Passive	Stative
1	—	—	is	—	—	—
2	—	—	is	—	are presented	—
3						
(etc.)						

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AN ADVANCED ESP READING PROGRAM

Barbara Fallis

Ideally, advanced ESP courses should be taught by people knowledgeable not only in English language teaching but also in the "specific purposes" field that occupies their students. Because this is often not the case, one problem continues to surface: how to teach students whose English may be lacking but whose technical knowledge of their field far surpasses that of their English instructor. Most teachers I know in this situation have no fear of instructing students with low language proficiency (here, any English you teach will be helpful), or when the specialized content is within the reasonable grasp of an intelligent person (as ESL teachers are likely to be). But confidence is apt to plunge when teachers are faced with students of advanced English proficiency from highly technical fields or the hard sciences. I would like to describe how one workable solution was reached in an ESP program designed to meet the reading needs of Chinese scientists.

At the Guangzhou English Language Center (GELC) in the People's Republic of China, a staff of 20 Chinese and American ESL professionals (only two of whom are trained scientists) are routinely faced with some of the brightest young scientific minds in China. Most of these students will need to put their English to use at universities in the English-speaking West as they pursue advanced degrees in their specialties, ranging from biochemistry and genetics to physics, mathematics, and engineering. At the most advanced levels, they need practice in tackling the highly specialized literature they will encounter as post-graduate academics and as working scientists. A critical issue for their teachers, therefore, is deciding what reading material should be chosen for instruction and practice, and who should do the choosing.

At GELC, our solution was to teach reading skills and strategies that exploited the strengths of both teachers and students, modeling course reading assignments as closely as possible on authentic tasks students would be likely to perform. Because today's scientists need intellectual cross-fertilization in order to reach creative solutions to difficult problems, our students needed to read not only articles specific to their disciplines, but also material drawn from areas both closely allied to those disciplines and from the greater field of science in general. The course thus included components which reflected all three areas of concern.

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We selected general science articles as the basis for classroom instruction in reading strategies (skimming and scanning, speed reading, guessing from context, etc.) and in summarizing activities. Because these articles are understandable to the intelligent nonspecialist, we were able to closely monitor students' work. The articles also served as the basis for synthesis and evaluative reading, as students from varied disciplines appeared to find enjoyment and value in discussing their perspectives on the issues raised.

We then asked our students to select articles in fields allied to their own from *Scientific American*. The notes and summaries they generated from these articles were monitored for quality and communicative adequacy. Since many GELC students would become teaching assistants at universities abroad in the course of their graduate studies, we field-ignorant nonspecialist teachers functioned to a certain extent as surrogates for the neophyte undergraduates GELC students would be most likely to instruct. Finally, the students selected textbooks or journal articles closely related to their research interests for reading practice on their own. Their strong background knowledge and high interest allowed them to apply the strategies taught in class to material far above the heads of their instructors, who monitored progress each week by simply checking that summary notes, kept in the manner most meaningful to each student, had been made.

In conclusion, because most ESP curricula rest upon the needs of particular students, the solution described here may not apply in every case. However, it is helpful, I think, to be aware that one needn't throw up one's hands in horror at the prospect of teaching students of high language proficiency in highly technical fields. Creative solutions may be found as long as student's target needs are kept in mind. In many cases, exercises may be designed which not only allow students to gain proficiency by making maximum use of their strengths, but which turn a teacher's ignorance of specialist content into an asset by providing settings which are genuinely communicative. In these circumstances, teacher ignorance may actually become a blissful advantage that can be effectively exploited to benefit ESP reading students.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author describes a situation that many still consider a problem in ESP today: how to teach students whose English may be lacking but whose technical knowledge of their field far sur-

passes that of their English instructor. Do you consider this to be a problem? Did such concerns affect your desire to become involved in ESP?

2. The author says that the teachers at GELC modeled course reading assignments "as closely as possible on authentic tasks students would be likely to perform." What might these tasks be?
3. What is meant by "synthesis and evaluative reading"?
4. The author states that "we field-ignorant nonspecialist teachers functioned to a certain extent as surrogates for the neophyte undergraduates GELC students would be most likely to instruct." This suggests that the teachers became the students while the students became the teachers. Do you agree with this policy? What would happen to the authority and control of the teacher under such circumstances?
5. As a student, would you be satisfied that your instructor had simply checked that summary notes had been kept without being able to comment on the meaning and content accuracy of those notes?
6. How could a teacher's ignorance become a "blissful advantage"?

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EST

TEACHING LANGUAGE THROUGH CONTENT: ENGLISH FOR SCIENCE AND TECHNOLOGY AT USC

David Bycina

"While the need for coordinating the learning of language and subject matter is generally recognized, just how this should be accomplished remains a problem," (Mohan, 1986), and one of particular concern for university ESL programs. Various solutions have been attempted, including sheltered and adjunct courses. A "sheltered course" is a content course open only to international students; normally it involves no explicit language training. An "adjunct course," by contrast, is an ESL class attached to a regular content course.

CONTENT-BASED COURSES

With neither of these options available to us because of institutional constraints, the American Language Institute (ALI) at the University of Southern California has been experimenting with skills-integrated, content-based courses of our own devising. A content-based curriculum is simply one in which the basic organizational unit is a theme or topic, rather than the more customary grammatical patterns or language functions. The goal of this is to provide meaningful contexts for language learning instead of focusing on language as an object of study. At the foundation of this approach is the Krashenesque notion that acquisition is best promoted when language is presented in comprehensible and interesting communicative contexts. However, we diverge from Krashen and side with recent first language trends in reading and writing across the curriculum in the belief that instruction in higher-level language and study skills is warranted (for international students as for native speakers) and that such intervention can and does make a difference.

INTERMEDIATE LEVEL

Although all the courses at the ALI employ this model, for want of space, I will try to exemplify our approach by describing an intermediate class for students of science and technology. This particular course is structured around themes from three scientific disciplines: astronomy, earth science, and biology. These subjects were chosen because they (1) represent possible electives in an undergraduate

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curriculum, (2) engage the interest of students from a variety of majors, (3) allow us to exploit previous knowledge, and (4) provide the course with a logical development by proceeding, in terms of content covered, from the Big Bang through the formation of our planet to the emergence of humankind.

Contrary to the impression one might receive from the last point, the course is not sequenced in a strictly chronological fashion. Instead, each unit begins with a fairly concrete topic (e.g., the nature of our solar system) and then proceeds toward a consideration of the central paradigm within each field (e.g., the current conception of the universe). In the course of a unit, students investigate how our present ideas have developed and how they supplanted previous conceptions. Implicitly, therefore, the course has two metalinguistic aims: to afford the students a broad scientific background in English and to make them aware of how scientific paradigms develop and change.

AUTHENTIC MATERIALS

Material for all three units is drawn from authentic and unsimplified college texts, scientific encyclopedias, articles, and books for the educated layperson. Entire chapters or full articles are frequently used because we are interested in developing strategies needed by the students in their other classes. Such materials are made less daunting by the types of activities employed, many of which are borrowed from first language instruction. Normally, a teacher will begin a subsection of a unit by eliciting from the students what they already know about the topic. She then has them survey the text, predict where certain information might be found, skim to verify predictions, and read for the main ideas or important details, depending on the nature of the text. Often a text will be divided among individuals or small groups so that, after reading, information can be exchanged.

Once the general content is understood, supplementary exercises based on the readings focus students' attention variously on vocabulary, rhetorical modes, text structure, and occasionally grammar. Following all this, the information gathered through reading and discussion is converted into summaries or essays before the next subsection is attempted. During the writing phase, a process approach is utilized, involving pre-writing activities, drafting, peer feedback, rewriting, and finally editing.

In addition to reading and writing practice, students are also given training in listening and note-taking by means of short prerecorded lectures, films, and videos, which introduce or expand upon the topics presented. At the end of a unit, there is an examination which requires students to use what they have learned and also develop test-taking strategies. A typical exam entails a one-hour lecture, a

reading component, and an essay requiring the synthesis of the content covered. Although the model is still being refined, student response has been positive, and measurable gains have been noted in both content knowledge and language proficiency.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What is meant by "skills integration"?
2. What is meant by a "sheltered" English course? How is it different from a regular content course?
3. Describe Krashen's terms "comprehensible input," "affective filter," and "Monitor," which are elements of his theory of second language acquisition.
3. Discuss the author's choice of astronomy, earth science, and biology as themes. Are they logical in terms of his objectives? What other fields (as themes) might also function in this way?
4. Do you agree that making students aware of how scientific paradigms develop and change is a metalinguistic aim?
5. In addition to the reason given, why else would the author often use entire chapters and full articles instead of shorter segments of text?
6. The process approach to writing is described as involving prewriting activities, drafting, peer feedback, rewriting, and finally editing. What other approach is usually contrasted with the process approach to writing? Which do you think is more effective? Why?
7. The author describes a listening component that makes use of "short prerecorded lectures, films, and videos, which introduce or expand upon the topics presented." In addition to playing or showing these materials in class, describe what other classroom activities based on these materials would be necessary to develop the skill of listening.

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EST

DEVELOPING NEW APPROACHES TO EST READING

Elizabeth Borkowski and Juan-Carlos Gallego

One of the most crucial concerns in the establishment of a reading curriculum is the selection and development of effective materials. In an EST course conducted abroad, this concern takes on additional significance and poses special problems. This was certainly the case in UCLA's Reading English for Science and Technology (REST) Project at the Universidad de Guadalajara, Mexico, in the faculty of chemical sciences.

The approach to reading taken by the REST staff was somewhat experimental in that almost all emphasis was placed on teaching reading strategies (eg., skimming, scanning, predicting, interaction with the text, etc.) and not on improving students' linguistic competence. This approach was taken because the REST staff was told that the students' sole need was for instruction in reading and that their linguistic proficiency was adequate for such specialized instruction. Beginning with these assumptions, the REST staff formed the curriculum based on current psycholinguistic theories of reading, which view reading as an active process in which readers bring to the text their knowledge of the world in order to make sense of what they read (Alderson 1984). In these theories, general knowledge is given priority over linguistic knowledge, with no specification of the linguistic proficiency needed by readers. While this approach was successful with some students (at various levels), it seemed to be too frustrating for most, and did not produce significant positive results.

In the first year, it was decided that authentic chemical engineering texts would be used in order to provide the students with an instrumental motivation for their language study. The texts were provided by the students' professors and were to be used in an adjunct course model. In this model, the materials from the students' content courses (in this case, chemical engineering) are used as the basis of instruction in the English course; this not only provides students with substantial background knowledge, but also improves motivation (Snow and Brinton 1984). These two factors, background knowledge (Smith 1978) and motivation (Goodman 1984), are of critical importance in the reading process, especially in the case of readers whose linguistic proficiency is below native-like levels. Along with these texts, a variety of authentic materials were used (from *Time, Newsweek, Omni,* etc.) to satisfy the students' desire for materials outside their field.

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This rationale for the choice of materials seemed reasonable, but in reality was far too simplistic. Many of the students, whose levels of English proficiency varied greatly, did not have the necessary competence in English to work with these texts. In addition, articles were not always suitable for the teaching of reading strategies; that is, their organization and content did not lend themselves to the illustration of the strategies presented. For example, not all articles could be clearly outlined for use in the presentation of, say, text organization.

Beginning students felt unprepared to work with the texts and asked for more work on grammar, structure and vocabulary. Intermediate students had less linguistic difficulty, but were divided as to which texts they preferred (inside or outside their field). It was evident to the teachers that, regardless of level and interest, the students were quite successful in understanding those texts related to chemical engineering. It was also obvious from the UCLA ESL Placement Exam (ESLPE) results that students were making linguistic gains during the course of the year.

Despite this success, there was a general feeling of discontent, specifically over the way the texts had been used. The students felt there was repetition in the presentation of strategies, little variety in exercises and tasks, and not enough emphasis on grammar. This discontent could be accounted for by the discrepancy which existed between student needs and institutional needs. On the one hand, a good portion of the students preferred learning English for more general purposes than enabling them to read science and technology texts. On the other, the teaching methodology of the REST staff was innovative and "foreign" to most students, and was, most likely, counter to their traditional learning styles, at least initially. A thorough analysis of the students' real needs and an adequate balance between new and more traditional teaching approaches might have had a positive effect both on students' linguistic gains and on their level of satisfaction.

After a year of working with these materials, the REST teachers came to a number of conclusions. First, materials should continue to be chosen both from inside and outside the chemical engineering field, with students having more say in what would best fit their interests. Authentic and simplified (eg. ESL/EFL textbook readings) texts should be used; this makes it easier to accommodate all levels and to use a variety of exercises in the classroom.

The most important conclusion concerns the modification of the original theoretical approach to teaching reading. In the opinion of the authors, the teaching of reading strategies must be complemented with explicit language teaching (in the context of the readings)

and more standard types of EFL exercises. The second year of the project has been modified along these lines, with positive results.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. This article reveals an interesting evolution in the development of an adequate needs analysis. For example, the authors describe an initial emphasis on reading instruction. How was this modified as the course progressed? What does it suggest about the nature of needs analysis?
2. Discuss the advantages and disadvantages of focusing on a single skill in an international ESP class.
3. Discuss the authors' statement that "readers bring to the text their knowledge of the world in order to make sense of what they read." What does this mean in practice? What would you do in your classroom to connect your students are reading with their own knowledge of the world?
4. Discuss the difference between an instrumental and an integrative motivation for learning a second language.
5. Discuss what is meant by the adjunct course model. How would this work in practice?
6. Some practitioners believe that only authentic texts should be used in the ESP classroom. However, the authors used both authentic texts (e.g., chemical engineering texts and popular magazines) and simplified materials (ESL/EFL textbooks). Discuss the authors' reason for their decision and whether or not it was justified in this case. Do you think this would be appropriate in all ESP classes?

7. What do the members of your group feel about teaching ESP to beginning level students?
8. *Appropriate technology* is a term used to describe, among other things, a thorough understanding of the local setting in which ESP is taught. What did these authors learn about the appropriate technology for the students they were working with?
9. The authors concluded that reading strategies should be complemented with "explicit language teaching and more standard types of EFL exercises." What do you think they meant?

Activities

1. Find a short article about a scientific topic in *Time, Newsweek, Omni,* a newspaper, or some other source of popular journalism. With the other members of your group, discuss how you would use this article in an EST class. Assign a different language skill (listening, speaking, reading, writing) or subskill (pronunciation and grammar) to each member of the group. Then prepare an outline of a lesson plan in which you include as many skills and subskills as possible.
2. Find a specific reading passage and, with the help of your own experience and any EFL reading texts available, make a list of as many reading exercises and tasks that you and your group can think of to accompany the reading passage. Present the results to your class.

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ENGLISH AND COMPUTERS: A MODIFIED ADJUNCT COURSE

Peter Master

The English and Computers course was designed to give participants instruction and practice in communication skills as well as to give them content instruction in computer science. This was accomplished through the cooperation of two instructors, an ESL instructor (myself) and a computer science instructor. The final week of the four-week course was devoted to tours of various computer companies and facilities in the San Francisco Bay Area. The students consisted of seventeen Italian males between the ages of 20 and 24. They all came from a school in Genoa, where they had studied nine months of technical computer training. The students' knowledge of English varied somewhat, but most were at the intermediate level.

The course consisted of three separate segments. The first was called "ESL," the second "Computers," and the third "English and Computers." The coordination of instruction differed from the standard adjunct class reported in the ESP literature in that the content class (Computers) was not a regular academic class in which native speakers also participate but rather a sheltered content class specifically tailored to the students at hand.

THE ESL COMPONENT

The ESL component of the course consisted of 1) listening practice, fluency building, and conversation activities, 2) occasional discussion and practice of grammatical points when they arose in spontaneous usage, either from what the students said or from what they had read or heard outside the school, and 3) discussion of the idiomatic constructions and the technical vocabulary that were used by the content instructor in the Computer class.

During the Computer class, I sat among the students and took notes in two columns. One column was a list of language difficulties that I noticed the students having during the lecture, and the second was a list of technical vocabulary. During the ESL class, we discussed all of the language difficulties, and I also went over the list of technical vocabulary to make sure the students knew what was being talked about. On several occasions, I merely had to write the term on the blackboard for the students to comprehend it, which they had not always been able to do during the lecture because of their underdeveloped decoding skills. In the written mode, the students recognized that many of these terms were cognates of words in Italian. In

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other cases, since many of these terms were new to me, I depended on the explanations of students in the class. On the rare occasions when this was not sufficient, we asked the content instructor to explain the term in the next class.

THE COMPUTER COMPONENT

The computer component consisted of lectures by the content instructor and hands-on experience of the microcomputers in the computer laboratory. The first lecture concerned the basic constructs of computer technology, including the history of computer development, analogies between computers and the brain, the basic building blocks of computers, and the technology of punch cards and integrated circuits. The second lecture concerned the hardware building blocks of computers, including computer subsystems, logic, gate logic, transistors, and the solid state technology of semiconductors. The third lecture concerned the software building blocks of computers, including high-level languages, assembly language, machine language, operating systems, compilers, and computer languages in general. The fourth lecture took place in the computer lab and concerned the microprocessor and microcomputer technology used in the lab itself, followed by hands-on practice with a variety of software programs (IC design, expert systems, graphic CAD, and mathematics programs, which the students worked on in groups of four). The fifth lecture also took place in the computer lab and concerned the evolution of computer technology, including a discussion of manufacturing technology, computer workstations, peripherals, and debugging tools. This was followed by further work using software programs, for which the students showed great enthusiasm. The content instructor supported his lectures with a large number of actual components from his laboratory at Hewlett Packard, which he passed around the class during his lecture. He also gave each student an integrated circuit printed on a metalized silicon wafer and copies of the software programs the students used in the lab.

THE ENGLISH AND COMPUTERS COMPONENT

The English and Computers class was devoted entirely to presentations that were organized by groups of four students (five in one group). Each group had a different assignment, which was always to explain in detail one of the diagrams in a large packet of material provided in the Computer class. A group leader was chosen (a different one for each class period) whose function was to divide up the task such that every member of the group had a specific job and to coordinate the presentation. Each student had the opportunity to be a group leader at least once. While the students were preparing their

presentations, the ESL teacher and the computer instructor were both on hand to answer the numerous problems and questions the students had in preparing a presentation on a very technical subject. It was very gratifying to see how quickly the students identified the respective expertise of each of the instructors, calling on me when they had questions about grammar and sentence structure and general vocabulary, and calling on the computer expert when they had questions about technical terms or the specific way in which a component functioned. This demonstrated quite tangibly the efficacy of the adjunct approach in ESP. During the last third of the class, each group took the floor under the direction of the group leader and, using the blackboard and any other props available, the students made their presentations while the instructors sat in the audience.

TOURS

The students went on seven tours during the final week of the class. The tours were all of facilities in which computers and/or computer manufacturing played a primary role. These included the NASA Ames Laboratory, the Stanford Linear Accelerator, the Olivetti Corporation, the Cetus Corporation, Amdahl, Measurex, and the Whole Earth Access Computer Assembly Division. The Cetus Corporation was the least applicable to the interests of the students as it is concerned with genetic engineering and pharmaceutical manufacture and uses computers only for data processing and information management. The Whole Earth Access Computer Assembly Division was also a rather low-key enterprise, but the students seemed to enjoy the "laid-back" operation of the small company, especially in comparison with giants like Olivetti and Amdahl, and they asked more questions on this tour than on any other. All in all, the tours were a very relevant and useful conclusion to the course, as much of what the computer expert had discussed in class was visible in operation in the manufacturing arms of those companies that built computers. NASA and the Linear Accelerator were fascinating applications of computer technology.

CONCLUSION

In general, the focus on listening comprehension and fluency building, in which the most notable improvements were made, was appropriate for such a short course, and the analysis of the phrases and technical terms used in the Computer class satisfied the interests of both the students and the school that arranged for the program. The course would definitely have been far less effective if it had not been for the good-natured presence of the computer expert, who was an ESP teacher's dream of a fellow adjunct instructor. He was genuine-

ly desirous of the understanding of the students, and unlike many other content instructors I have heard of, was extremely willing to take my suggestions (e.g., to give the students more time to answer questions in class and to let them discuss the questions with each other before giving an answer). He was also very flexible, yet extremely knowledgeable in his field. The smooth cooperation between the content and the ESL instructor generated a positive learning environment for the students, which is, of course, the goal of any ESP program.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the author's statement that he "depended on the explanations of the students in the class." Shouldn't he have felt embarrassed that he did not know the terms that he was discussing? Should he have taken a course in computers before teaching this class? How much subject-matter knowledge should the ESP instructor have?
2. What is the rationale for the computer instructor's supporting his lectures "with a large number of actual components from his laboratory at Hewlett Packard"? Isn't this a kind of kindergarten "show-and-tell" procedure that might be insulting to the students? What is the role of realia (actual objects as opposed to pictures) in the language learning process?
3. What is the purpose of assigning roles in group work? Why did the author chose a different group leader for each class period?
4. Describe the adjunct approach (usually known as the adjunct model). Why is it so effective in ESP instruction? What is required to make the model work well?
5. What was the purpose of the tours? What should be the role of the ESP instructor on such a tour? How can the experience of the tours be brought into the classroom?

Activities

1. Make a copy of a short (1-2 pages) article from a popular computer magazine (e.g., *PC Magazine*). Find five idiomatic constructions (i.e., unified word groups that cannot be understood from knowing the meanings of the individual words alone, such as *boot up*) and show how you would explain these idiomatic structures to an ESP class.
2. Explain a diagram of a computer chip, diskette, peripheral, etc.,

in detail to a group of your colleagues, using the blackboard and any props available. Ask the group to critique your presentation when you have finished. What did you learn from this presentation that might help you to prepare your students to do a similar activity?

3. Arrange to go on a tour of a computer facility in your area if one is available. Take notes on the kinds of language knowledge your intermediate- to advanced-level students would need to derive maximum benefit from the experience. How would you prepare your students for such a tour?

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EST

THE PROPOSAL PROJECT AS A COURSE FRAMEWORK IN EST

Sharon Jones

International students in U.S. universities are in need of more spoken and written communicative ability than has traditionally been thought to be the case. Trends show that these students are 1) joining a growing international community of scientists who actively collaborate, 2) choosing to join the industrial U.S. workforce after graduation, and/or 3) becoming faculty members in greater numbers at leading U.S. institutions (Swales 1990-91). The third group in particular is likely to be heavily involved in technical communication right from the start. Even as graduate students, many find themselves working under other non-native speakers who may expect them to be responsible for grant or report writing, interviewing, consulting, and the like. As faculty members, they will be required not only to communicate with the technical world but also with their students.

A single EST class is, of course, not adequate preparation for these scientists. However, when one class is all that is available to address both oral and written needs, the proposal project as a course framework has certain advantages. The primary advantage is that it allows students to work with academic content in a real context, which has been shown to be an effective technique (Rew 1989). The course is, in effect, an adaptation of the adjunct model (Master 1991), incorporating an aspect of individual tutorial/independent study with group support. However, the students themselves are responsible for maintaining contact with their chosen professions.

The EST course in which this framework has been used typically consists of both graduates and undergraduates with a wide range of competence and experience from as many as thirteen academic departments. Early in the semester, each student comes up with a proposal idea from which he or she produces six written documents and three oral presentations over the fifteen-week semester.

ADVANTAGES OF THE PROPOSAL PROJECT

The proposal project has several advantages over the more traditional EST syllabus requiring students to write about *different* topics in their fields for each writing assignment.

Satisfying Student Needs and Professional Demands

Students learn how to apply several useful formats: the proposal (written in memo format), a letter of request or inquiry to facilitate

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the research process, a mechanism and process description relevant to the proposed research, and a culminating report with an abstract. The customized nature of the project gives students immediate control of the decision-making process, forcing them to envision the whole project as well as its component parts. For example, a graduate student whose research is currently in process may write a progress report. On the other hand, a student proposing a new automobile assembly plant for his or her country may choose to write a feasibility study.

Capitalizing on Student Expertise

Students' current interests and projects, including those from other classes, can be immediately incorporated into the classroom by the instructor's use of the students' terminology in examples and models. Typically, graduate students propose research on some aspect of their doctoral work. Those newly arrived who have not yet decided on a topic often propose preliminary research to help them select a Ph.D. focus. For example, one student did a comparative analysis of specialized equipment that his advisor had asked him to purchase and presented it to his research lab. Undergraduates often propose concurrent course projects. One student designed, built, and tested a microrobot with a remote sensor. Another had a personal goal of investigating six graduate schools in his field. In short, the students' proposals reflect what they are doing at the moment or what they will need in the near future.

Using Authentic Materials and Contexts

Because the contexts for most of the students are real and vital to them, they are motivated to fully explore the nature of a proposal. Audience analysis, which is often a new and valuable concept for them, is constantly encouraged. The audience for these assignments can also be authentic as some of the students address their proposals to persons in their departments or outside committees. Their letters go to a variety of people both inside and outside the technical community. Their descriptions become part of their final reports in many cases. Furthermore, the classroom audience changes as it becomes informed throughout the semester. The students are continually working with their own language, providing the opportunity for revision in both writing and pronunciation work.

Promoting Interaction

Because the initial idea provides the framework for the entire semester, students recognize it as an important decision. They are motivated to use available resources; many come voluntarily to

my office for immediate content-based advice. Throughout the semester, they eagerly observe, in small-group work, how other students are handling the task. For example, the first oral presentation is an informal feedback session in which a student gets the approval of the class before writing the final draft of the proposal. It also provides impetus for students to make and maintain contact with professors and teaching assistants in their classes and research laboratories.

An obvious question about the proposal project is whether the students get tired of working on a single topic. That's not what they tell me, perhaps because they choose the focus themselves. Although it does not work equally well for all international students, the semester-long proposal project does seem to help most of them meet the expectations of the scientific community. They can make use of the ready-made audience of international scientists provided by the class and, while experiencing growing appreciation and respect for the work of colleagues in neighboring or shared disciplines, they are able to develop specific communicative competence.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Working with academic content in a real context in a language class is known as content-based language instruction (CBI), a type of syllabus that is used extensively in ESP classes. Ask the members of your group if they have ever observed CBI in action, and to describe their observations to the group.
2. What is meant by "the adjunct model"? Discuss the advantages and disadvantages of the model.
3. The author states that "the students themselves are responsible for maintaining contact with their chosen professions." What do you think is meant by this? How would students be expected to

maintain such contact?

4. How would an EST instructor usually deal with such a wide range of student interests (undergraduates and graduates from up to thirteen academic departments)?
5. The author mentions "the instructor's use of the students' terminology in examples and models." How would the instructor determine such terminology? What would this mean for a first-time instructor?
6. Much of the success of this class depends on group work and interaction among the students. Some have argued that group work does not work so well in countries that are not accustomed to its principles. Explain to your group whether or not the notion of group work and cooperative learning is practiced in your country and whether a course like the one described here would be effective.

Activities

1. Imagine that you have to review a scientific concept in your EST class. Select a scientific process (e.g., photosynthesis, hydrolysis, atomic fission, volcanic eruption) and discuss what elements of language (pronunciation, grammar, vocabulary, rhetorical patterns) might arise in discussing this concept with your class.
2. The author mentions six formats: 1) the proposal, 2) the letter of request or inquiry, 3) the mechanism and process description, 4) the research report (with an abstract), 5) the progress report, and 6) the feasibility study. With a partner, select one of these formats and determine its general structure. For example, one general format for a description of a mechanism is as follows (Master 1986):

Title

I. Introduction
   A. Formal definition
   B. Purpose
   C. External description
   D. Plan-of-development sentence
II. Description of part A
   A. Definition
   B. Purpose
   C. Possible details
      1. shape
      2. size
      3. location
      4. method of attachment
      5. material
      6. finish
III. Description of part B
   A. Definition
   B. Purpose
   C. Possible details
      1. shape
      2. size
      3. location
      4. method of attachment
      5. material
      6. finish
IV. Description of part C
   A. Definition
   B. Purpose
   C. Possible details
      1. shape
      2. size
      3. location
      4. method of attachment
      5. material
      6. finish
V. Conclusion (possible concluding sentences)
   A. Mechanism in action
   B. Advantages
   C. Disadvantages or limitations
   D. Special uses or applications
   E. Latest developments or models

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STUDENT-GUIDED COURSES IN ENGLISH FOR SPECIFIC PURPOSES

Margaret Newman-Nowicka

The student-guided ESP course model provides graduate students with access to ESP courses that relate directly to their academic work. To achieve the integration of language and academic skills, students are actively involved in every step of course planning and class preparation. The teacher takes on the role of consultant, first helping the participants to make clear what kind of language-related problems they face and then assisting them in developing realistic goals and practical exercises for improving language skills in identified problem areas. The course model was developed at Lund University in Sweden for graduate students with advanced English proficiency. So far, we have offered such courses in engineering, history, and education.

STUDENT-GUIDED ESP FOR ELECTRICAL MEASUREMENT ENGINEERS (EME)

A group of seven students from Lund's EME Department became interested in having a student-guided ESP course for themselves. Before our first meeting, I sent them a list of suggestions for possible course formats as they had had little experience designing ESP courses and needed some help getting started. This material also made clear the students' responsibility to take an active part in determining the direction of the course, participating in the classes, and preparing some of the class activities. I then met with the students for an hour to discuss their needs and to set the course objectives.

At this initial meeting, the students decided we would work on both spoken and written academic English in alternating classes and that we would meet every two weeks for two hours. However, the students later decided to work exclusively on writing. This is the advantage to this kind of course: the flexibility to change direction when a class activity opens up an area that students find stimulating.

CLASS FORMAT

Each class focused on one of the sections that typically make up a research article (RA) in a scientific journal: the Introduction,

From CATESOL News 1993

Materials and Methods, Results, and Discussion sections. In preparation for the class, I sent students written material relevant to the RA section to be covered in the next class, while the participants sent me samples of the RA section to be discussed from American or British journals in their fields and examples of their own attempts to produce such a section. This was work that they had written, were presently writing, or planned to write in the future about their own research.

In the classroom, I gave a short (ca. 20 minutes) lecture about the common writing conventions for the RA section under discussion and about issues of coherence, grammar, syntax, style, etc., as seemed relevant from the writing samples I had received. We then discussed the samples from published articles, referring to the points mentioned in the lecture (ca. 30 minutes). This provided an orientation for the discussion of the student papers (ca. 50 minutes). Finally, we planned the contents of the next class, identifying what had been useful, not so useful, or lacking in the day's activities; decided on any necessary preparation; and found a convenient time for the next class (ca. 10 minutes). Graduate students are often busy with teaching, conferences, and experiments in progress and such flexibility in scheduling was very helpful.

ADVANTAGES

The student-guided course model is highly motivating for students wishing to work on their English in a way that is directly and immediately useful in their fields of study. It allows them to limit class goals and activities to those which they determine are useful for their work in progress. In addition, student responsibility to provide some of the course material ensures that the material is relevant to the students' needs.

The fact that the students provide some course material can also lend authenticity to class discussions. For example, in the EME class students obviously had a real command of the content of the writing samples. They were thus well-equipped to carry on an authentic discussion about meaning. My role was to make sure that these content issues were related to questions of communication and writing skills. Often I merely asked questions: Is the logic in this passage clear to you? Is it organized according to the conventions discussed in the lecture? Is the paragraphing similar to that in journals? Why is this data in the Material and Methods section and not in the Results section? What is the real emphasis here? Why isn't it stated in the topic sentence? Why is there a change from the past to the present perfect here? These were not "display questions" to which I already knew the answers. They were real questions for which only they had the answers in terms of the content. This encouraged authentic discus-

sion of the content as it related to language as we could each contribute to the discussion from our own areas of expertise.

Student-guided courses can also set a welcome limit to teacher preparation. In the EME class, I prepared one 20-minute lecture for each two-hour class. The rest of the time I guided discussion about the writing samples. I have to admit those articles were sometimes heavy going. However, I did not need to understand them deeply but merely to note language conventions and prepare questions for the students. Such preparation also kept me keenly aware of the specific language goals my students should be working towards, and this awareness benefited my lectures as well.

LIMITATIONS

The student-guided ESP course is probably only appropriate for mature, advanced-proficiency students who are working in related areas and have a clear and immediate communicative goal. This is not to say that the students have to know precisely what problems are preventing them from meeting these goals. That job can be shared and sometimes even taken over by the teacher. However, they must be able to recognize whether class activities identify and respond to real problems in useful ways. Students who are not clear about their communicative goals would probably find it hard to determine the objectives for such a course and to evaluate the class activities.

Another caveat is that a class which allows students to change direction in mid-course must have an experienced teacher, one who has already taught the type of students who are to make up the class. In my case, I had had a background in teaching EAP and ESP and had already given university courses in writing for scientific journals. This background provided me with a source of tried and true materials to use for lectures and class activities. I often had a sense of what pitfalls might lie ahead and what sort of goals are realistic and rewarding. Without such experience, I'm afraid I might have missed the mark a bit too often. This is of course a problem with any class format. However, in a student-guided class, the students can lose confidence in their ability to guide themselves if they feel they are part of a program in which the blind are guiding the blind.

Despite this caveat, the student-guided course is a promising format for meeting the needs of ESP and EAP students at the highest levels of English proficiency.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the author's premise that "students are actively involved in every step of course planning and class preparation" and that the teacher "takes on the role of consultant." What are the advantages and disadvantages of this premise? Would such a premise work well in your country?
2. The author met with the students for an hour to determine their needs. Did this comprise a sufficient needs analysis? Was there any ongoing needs analysis?
3. Why did the author use "samples from published articles" rather than from an easier source such as a newspaper or popular science magazine?
4. The author claims that "student responsibility to provide some of the course material ensures that the material is relevant to the students' needs." Do you agree that allowing students to select the material they will be working with will indeed be relevant to their needs? What aspect of needs does this practice possibly exclude?
5. The author says that "we could each contribute to the discussion from our own areas of expertise." What model of instruction does this notion reflect?
6. Discuss the author's statement that "I did not need to understand them [the research articles] deeply but merely to note language conventions and prepare questions for the students." Do you agree with this statement? What if a content professor said, "See! This is what I don't like about ESP instructors!" How would you respond in light of the philosophy of this article and the experience of the instructor?

Activities

1. Much work has been done on the research article (RA) and its four sections. Swales & Feak (1994, p. 175), for example, describe the generation of the Introduction section in terms of the following obligatory "moves":

    1. Establishing a research territory (by reviewing previous research)
    2. Establishing a niche (by indicating a gap in the previous research)

3. Occupying the niche (by outlining the nature or purpose of the present research)

Obtain an introduction to a research article and examine it for the moves that Swales & Feak describe. Are all three present? Are they in the same order? What other information is present?

2. Identify the word(s) in the following paragraph from the article that make the paragraph coherent.

> Each class focused on one of the sections that typically make up a research article (RA) in a scientific journal: the Introduction, Materials and Methods, Results, and Discussion sections. In preparation for the class, I sent students written material relevant to the RA section to be covered in the next class, while the participants sent me samples of the RA section to be discussed from American or British journals in their fields and examples of their own attempts to produce such a section. This was work that they had written, were presently writing, or planned to write in the future about their own research.

3. Swales & Feak (1994, p. 171) also describe a typical Results section in an RA, though not in terms of moves. They found that many Results sections contain at least some of the following features:

   a. justification of the methodology
   b. interpretation of the results
   c. indication of agreement with previous studies
   d. comments on the data

   Obtain a Results section from a research article and examine it for the possible features that Swales & Feak describe. Are any present? What order do they occur in? What other information is present?

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EST

ENGLISH FOR MATHEMATICS UNDERGRADUATES

Gilberto Diaz-Santos

The very first day I started working at college, I walked into a classroom where some minutes before an absent-minded mathematics lecturer had forgotten to erase the chalkboard. I looked at the formulas and, in trying to get some meaning from them, was reminded how unwillingly I had accepted a position to teach ESP to students majoring in mathematics, a discipline I had not studied for 15 years. I wonder how many other ESL/EFL colleagues have gone through the same experience of having to figure out how to link English language teaching to subjects we regard as unsafe ground, sometimes with little or no background to undertake such a task?

THE FIRST STAGE

A good first step when there is no time for planning is to follow the current trends in ESP and concentrate on the teaching of study skills for the overall comprehension of reading materials. In mathematics, ideal reading passages are those concerning the general and historical aspects of the subject, which make it possible to carry out activities involving anticipation and prediction, the recognition and recall of specific details, the identification of discourse markers that make relationships between ideas more explicit, and so on.

From the very beginning, the ESP teacher should be clear about the real and hypothetical language needs of the learners, in this case what a future mathematician should be taught at this stage. A first item on the list is a review of numbers as well as the English and Greek alphabets. Since letters are a key device in algebra and analysis, it is important to make sure that pupils properly handle their names without mistaking them. Certain mathematical terms and abbreviations of Latin origin also deserve some attention. From there, one can move on to teaching and practicing the verbalization of mathematical symbols and operations. This is perhaps the most painstaking task since it has to be learned by heart and practiced repetitively, much as we once learned the multiplication tables or the declensions of Latin, yet it is something students will have to acquire together with other presentation skills. Therefore, the sooner they start, the better they will be able to master it.

From CATESOL News 1995

THE SECOND STAGE

At the second and more challenging stage in the ESP course, the real stuff of mathematics has to be dealt with. However, the traditional reading approach may no longer be useful at this point since 1) students can read the mathematics of most textbooks regardless of the language in which they were written and 2) ideas respond to rules of logical inference and they cannot be simply described as general, main, and supporting.

Mathematical statements such as *definitions, theorems, lemmas, corollaries, proofs,* and *remarks* show distinctive syntactic features in English which allow them to be treated as linguistic functions which define, explain, and generalize. This is a key aspect as it implies—without abandoning the practice of reading textbooks—a shift in teaching from receptive to productive language skills. In addition, most if not all of the work will have to be coordinated and shared with a subject-matter specialist, a partnership that is sometimes mandated by academic policies (usually in ESL situations) but which in other cases (most EFL settings) depends on one's gifts as negotiator and PR agent.

With such help, a number of exercises can be devised to train students in the recognition of the features of mathematical propositions or to verify their comprehension of, say, a *definition* and allow them to apply it to other cases, as in the following example:

Determine which items satisfy the following definition.

By homogeneous polynomials we mean polynomials consisting of terms of the same degree. For instance, the expression $3x^2 - 2xy - 5y^2$ is a homogeneous polynomial of degree two for the variables x and y.

a) $a^2x + y$ b) $\dfrac{x^2 + y^2}{xy}$ c) $x^2 + 3xy + 5$ d) $5xy^2$

As to the structure of *theorems, lemmas* and *corollaries*, it is important that pupils distinguish the hypothesis to be proven from the result that such an assumption leads to, and vice versa. The multiple-choice format can be useful (provided no foolish distractors are included in the exercise), as shown in the following example:

Indicate which of the given statements should precede the one below to make sense as a theorem.

...then c exists such that a < c < b and f'(c) = 0.

___ Let the function *f(x)* be continuous in a closed interval $a \leq x \leq b$ and differentiable inside this interval.
___ Suppose that *f* has a maximum in the open interval (a,b).
___ Consider a continuous function *f* on [a,b] which has a derivative in every point of (a,b).

However, if we confine the activity to the mere recognition of elements of the hypothesis and the thesis, students may end up identifying *if...then* constructions mechanically, mistakenly assuming that all *if...then* constructions are theorems since theorems are usually stated in terms of conditional sentences. In this case, rewriting exercises may help discourage the erroneous use of *if...then* constructions while practicing other ways of expressing generalizations. Such a reformulation is shown in the following example:

(sentence given): *If a sequence is convergent, then it is bounded.*

(possible reformulation): *Every convergent sequence is also bounded.*

A combination of reading and writing skills can also be achieved through exercises such as the following:

Read the following statements and organize them logically as they would appear in the theorem. Supply the missing words.

- if at this point there exists the finite derivative *f' (c)*
- the function *f(x)* is defined in an interval x
- Fermat's theorem
- necessarily, *f (c)* = 0
- it takes at an interior point of the interval its greatest (smallest) value

The subsequent study of *proofs, demonstrations,* and *remarks* will pose no great problems since their particular structure in English is mostly governed by discourse markers of sequence, emphasis, and reformulation. Yet it is not possible to move beyond this stage unless pupils have been properly trained to express their logical thinking either orally or in writing. There is no doubt that dealing with *proofs*

and *demonstrations* is a sort of crossroads, a point of skill integration at which students have to show how much they have learned concerning 1) the verbalization of signs and symbols of mathematics and 2) the description of the different stages in a process, thereby making clear the logical order in which statements should be organized and formulated.

Before students get involved in demonstrating a theorem or a specific method of solving a problem, a live demonstration should first be presented as a sort of model. A math specialist with a good command of English can give a lecture so that students not only have the experience of getting firsthand knowledge in English but also the opportunity to pay close attention to the way in which the material is presented, a model they will surely use in their own presentations later on.

OTHER IDEAS

Though the previous exercises suggest that the entire focus is on specific elements in mathematics (*definitions, lemmas, proofs,* etc.), there are other ideas which can be applied that do not demand mathematical knowledge of the ESP teacher yet do not skirt the subject matter. A lot of language and subject-related input can be provided by making use of "friendlier" materials than those found in specialist books. Publications from the mathematical community such as *Notices of the AMS* cover a lot of relevant information on meetings, awards, position announcements, AMS policies, interviews, book and software releases, etc., which offer a wide spectrum of expository and transactional writing in which jargon is not the distinctive feature. Such authentic materials provide the possibility of developing a number of task-based activities such as requesting information about a conference, applying for a position, ordering books, and commenting on an editorial, which will result in substantial vocabulary input and practical use of the language.

In addition, the classroom can be turned into a place for literary debate. Who said that ESP implies teaching English only as a tool for success in the job market and not as a medium for providing more cultural knowledge? "Prelude," a passage from *Gödel, Escher and Bach: An Eternal Golden Braid* by Douglas Hopfstadter, combines mathematical knowledge, humor, and absurdity in a way that can be enjoyed by both specialists and laymen with a bit of common sense. Another work, Michael Crichton's *Jurassic Park*, can be a sort of mirror for mathematicians as a way to grasp the currently popular chaos theory.

CONCLUSION

Many of the ideas and suggestions included here were originally meant to solve the immediate need of what to do in tomorrow's class, but they now comprise a coherent curriculum that has worked well in our setting. Being able to cope with all this required self-study, preparation, team work, and above all a great deal of imagination to be able to contend with problems that arose along the way. In many ways, it has been like debuting a juggling act before a large and critical audience.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author states that a current trend in ESP is to teach "study skills for the overall comprehension of reading materials." In what particular subdivision of ESP is such a strategy most appropriate? Are the three skills described in the first paragraph unique to mathematics?
2. Using a dictionary, define the following terms, noting how they are different from each other:

   definition *theorem* *lemma* *corollary* *proof*

3. Discuss the difference between an ESL and an EFL situation.
4. Discuss why the roles of "negotiator" and "PR agent" might be required in working with a subject-specialist.
5. The author states that "there are other ideas which can be applied that do not demand mathematical knowledge of the ESP teacher." How much knowledge do you think an ESP teacher should have? Should an ESP teacher who does not know the subject matter be prohibited from teaching an ESP course? Discuss.
6. Many ESP specialists have advocated approaching a subject from a non-technical perspective. Choose another subject (e.g., science, history, psychology) and discuss how it might be approached in such a way.

Activities

1. Write out the full spelling of as many of the following Greek letters as you can:

Α α ____________ Ι ι ____________ Ρ ρ ____________
Β β ____________ Κ κ ____________ Σ σ ____________
Γ γ ____________ Λ λ ____________ Τ τ ____________
Δ δ ____________ Μ μ ____________ Ψ ψ ____________
ε ε ____________ Ν ν ____________ Φ φ ____________
Ζ ζ ____________ Ξ ξ ____________ Χ χ ____________
Η η ____________ Ο ο ____________ ψ ψ ____________
θ θ ____________ Π π ____________ ω ω ____________

2. Complete the following table of mathematical signs.

FUNCTION	SIGN	PROCESS	VERB	RESULT	TWO-WORD VERB
addition	+	plus	to add	the sum	to add X to Y
	–				
	X				
	÷				

3. Verbalize the following operations: (Adapted from Master, 1985, p. 122):

a. 11 + 2 = 13
b. 116 - 39 = 77
c. 44 X 44, or 44^2, = 1936
d. 734/28 = 26.21429
e. 3/4 + 2/3 = 1 5/12
f. (20.019 X 3.1416) - 7 = 55.8917
g. 4000/2 X 10^3 = 2
h. $a^2 + b^2 = 18$; solve for a. Answer: $a = \sqrt{18 - b^2}$
i. (49/7) + (22 X 3) = 73
j. $\pi r^2 = 51$; solve for r ($\pi = 3.1416$). Answer: 47.8584

4. Match the following discourse marker categories with the appropriate discourse markers:

a. sequence 1. ___ *in other words* 4. ___ *finally*
b. emphasis 2. ___ *in fact* 5. ___ *after that*
c. reformulation 3. ___ *that is to say* 6. ___ *significantly*

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SOME FEATURES OF SCIENTIFIC ENGLISH

Alastair Sharp

Does scientific English have distinctive elements? If so, how far should these elements be taken into account in designing academic language courses for English for science and technology (EST) students? There is some evidence that scientific English has distinctive features. However, language patterns and rhetorical forms which may be common in science may also have frequent usage in other forms of academic writing. Scientific language has been described in terms of vocabulary and syntax, but scientific discourse involves a number of features related to linguistic, rhetorical, and conceptual variables.

However, students who are learning English for the purposes of studying and learning science are likely to be more motivated if the materials they are discussing have a scientific content base and if the teacher explicitly points out the syntactic and discourse elements that are common in scientific prose. Research suggests (e.g., Cheong 1972, Gopnik 1972, Huckin & Olsen 1984, Trimble & Trimble 1982, Trimble 1985) that EST reading and writing skills improve if direct study is made of the syntactic and rhetorical patterns characteristic of scientific English.

THE SELECTION OF ITEMS FOR COURSE DESIGN

The following is a list of some of the features generally recognized as being important in scientific discourse and which offers a practical guide to the selection of items for course design.

1. Academic/Subtechnical Vocabulary
   Academic and subtechnical vocabulary are far more important for scientific writers than technical vocabulary, which is learned better on the job. Academic/subtechnical vocabulary includes words such as *establish, fundamental, predetermined, tangible, and simultaneous* (Cowan 1974, Martin 1976).
2. Passive Forms of the Verb
   The passive voice has been thought to predominate in scientific writing. For example, *The litmus paper is placed in the liquid* [passive] is more common than *Place the litmus paper in the liquid* [active] (Chiu 1972, Cheong 1978). However, passive forms do not occur in scientific writing as frequently as has been suggested (Master 1991).

From CATESOL News 1997

3. Complex Nominal Compounds
   Complex nominal compounds such as *day and night weather observation station* feature strongly in scientific text (Bartolic 1978, White 1976) because they express a great deal of information in a very compact format. They can usually be decoded in reverse; the nominal compound above can be interpreted as a *station for the observation of weather by day and night.*
4. Elements of Words
   New words may be understood by breaking them down into separate elements. For example, by knowing the meaning of the Greek and Latin roots in the following box, the sentences below it are readily understandable.

Root	Meaning	Root	Meaning
epi	upper	meso	middle
dermis	skin	phyl	leaf
gon	angled	poly	many
lateral	side	quad	four

   A *polygon* with four sides is called a *quadrilateral.*
   A leaf is covered by a single layer of cells called the *epidermis.*
   Between the upper and lower epidermis is the *mesophyl.*

   The teaching of word elements such as these provides clues to the meaning of a variety of words in context (Huckin & Olsen 1991).

5. Modals
   The modals, e.g., *could, may, should, would,* have more limited use in scientific text. For example, they are essential for hedging (Skelton 1988, Hyland 1994) to qualify knowledge claims.
6. Verb Tenses
   The verb tenses in scientific writing may sometimes not concern time at all but rather degree of generalization (Lackstrom, Selinker, & Trimble 1972), as shown in the following examples:

   The material burned (in that case).
   The material has burnt (in many cases).
   The material burns (in all cases).

   Students used to reading narrative prose may find the precise meanings of these verb tenses confusing if they have only studied verb tense in relation to time.

7. Cohesive Devices
   Cohesive devices require the reader to scan backwards and forwards to link references to the same noun, as shown in the following passage:

Scientists were quick to realize the potential of **the laser** for **communication.** Even before **the first laser** was demonstrated, people who understood the **concept** were suggesting **its** use in **transmitting signals. Others** followed soon after **the device for producing these light sources** was invented in 1960. **Optical transmissions** were later developed by **researchers** in many parts of the world, for it was recognized that **these ideas** could be revolutionary.

8. Comparison and Contrast
   Comparison and contrast occur frequently in scientific writing, especially in research reports. Two common types of comparison are shown below:

   X and Y are similar/different
   X is virtually/precisely/approximately the same as Y

9. Cause and Effect
   There are many ways to show cause and effect in scientific writing. For example, the cause-and-effect sentence *If a match is inverted, the flame becomes larger* can also be expressed as *Inverting the match causes the flame to become larger.*

10. Definition and Generalization
    A distinction exists between a formal definition and a generalization. A definition has the general formula "An A (term) is a B (class) that C (specific features)," as shown in the following example:

    term — class — specific features
    <u>An ammeter</u> is <u>an instrument</u> that <u>measures electrical current</u>.

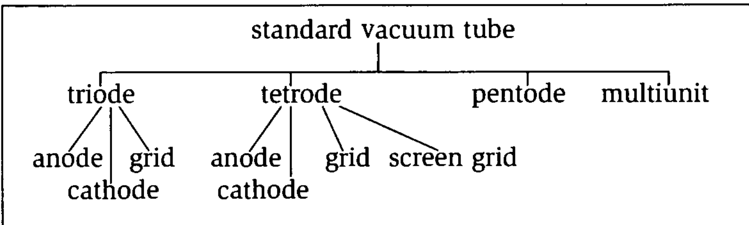
    A generalization or fact does not first classify the term into a class and usually indicates what the item does rather than what it is, as shown in the following example:

    Ammeters measure electrical current.

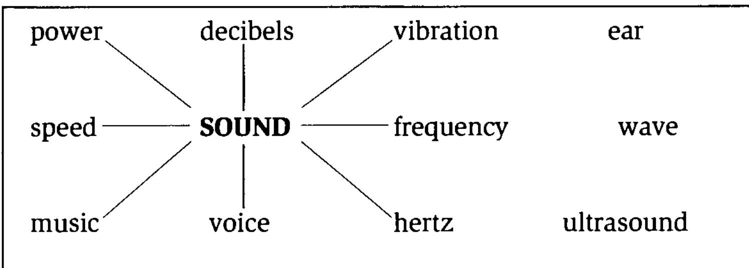
11. Explanatory Diagrams
Explanatory diagrams can make the decoding of scientific text easier to comprehend for the non-native speaker. For example, classification occurs frequently in scientific textbooks, as shown in the following example:

A triode is a standard vacuum tube which contains three electrodes: an anode, a cathode, and a control electrode called the grid. Other standard vacuum tubes are the tetrode, pentode, and the multiunit. The tetrode is a four electrode tube containing the three elements that the triode has plus one additional element; this is ordinarily the screen grid.

A classification diagram can help to clarify the structure of such a passage, as shown below:



12. Meaning Hooks
Learners need to link new concepts to experiences of their own, sometimes called "hooks" (Buzan 1974). Students should be encouraged to discuss meaning in the classroom, which may reveal their personal interpretations and misconceptions. The following diagram links several scientific notions and everyday terms related to the word *sound*:



The twelve features described above represent only some of the features of scientific writing that EST students will need to learn. The fact that they are so common justifies their presentation in the classroom from both a motivational and a linguistic point of view.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author makes the claim that research suggests that "EST reading and writing skills improve if direct study is made of the syntactic and rhetorical patterns characteristic of scientific English." This statement directly contradicts the claim of some researchers (e.g., Steven Krashen) that explicit study of grammar has little benefit. Discuss with your group their feelings and experiences about the explicit learning of grammar. Did it help or hinder their second (or third, fourth, etc.) language acquisition?
2. Hedging is the modification of language to limit the strength of a knowledge claim, e.g. *is thought to be caused* vs *is caused.* Are there any examples of hedging in the article?

Activities

1. Make a list of all the words in this article that you would consider to be academic or subtechnical using the sample words provided (*establish, fundamental, predetermined, tangible, simultaneous*) as a model.
2. Make a list of all the passive verb structures in the article. What is the most common tense of these verbs?
3. Choose five of the following complex nominal compounds (also known as noun compounds) from the article and show how you would decode them in reverse.

   Example: language course = a course that teaches language

   a. language pattern
   b. scientific content base
   c. discourse element
   d. reading and writing skills
   e. course design
   f. knowledge claim
   g. verb tense
   h. light source
   i. research report
   j. textbook
   k. vacuum tube
   l. control electrode
   m. screen grid
   n. classification grid
   o. meaning hook

4. Draw lines to indicate the cohesive devices in the following paragraph from the article.

> Does scientific English have distinctive elements? If so, how far should these elements be taken into account in designing academic language courses for English for science and technology (EST) students? There is some evidence that scientific English has distinctive features. However, language patterns and rhetorical forms which may be common in science may also have frequent usage in other forms of academic writing. Scientific language has been described in terms of vocabulary and syntax, but scientific discourse involves a number of features related to linguistic, rhetorical, and conceptual variables.

5. Can you find any examples of comparison and contrast and/or cause and effect in the article?
6. Brainstorm all the words you can think of that are related to the word *accident*.

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English for Sociocultural Purposes

ESCP

AIDS EDUCATION AS ESP

Ondine Gage-Serio

ESP is normally concerned with the language skills needed to function in a specific occupational subculture. AIDS education falls under the domain of ESP because it is concerned with the language skills that are needed in a society confronted with a deadly threat. These skills include the ability to read, write about, understand, and discuss what have always been considered taboo subjects. Teaching an AIDS (acquired immune deficiency syndrome) unit at higher proficiency levels may be a great personal challenge for teachers as they break through their own reluctance to dealing with "dangerous" English. However, when ESL teachers have the courage to discuss this subject and related topics, they become facilitators of social responsibility.

Although everyone may be familiar with AIDS, the need to open up this topic for discussion and evaluation is urgent. Unvoiced fear of the disease as well as abundant misinformation has created panic and laid the groundwork for "urban legends." For example, one group of Japanese students was certain that AIDS was being spread through Japan via a mysterious cult of AIDS-carrying women who went from nightclub to nightclub, having one-night stands, and disappearing in the morning leaving only a red lipstick insignia on the bathroom mirror: "Welcome to the world of AIDS!" Other students seemed to ignore the threat of the disease in their country due to the strong moral code of their religion. Still others were simply in a state of denial, believing that it affected only a certain group, thus reinforcing racist and other prejudicial beliefs. By creating an environment for students to debate this topic in light of factual information, they have the chance to critically assess the validity of their own notions about the disease.

In introducing an AIDS unit, a freewriting topic, such as "What do you already know and what do you want to know about AIDS?" can identify erroneous beliefs as well as questions to be addressed during the course. With the information from the freewriting exercise, the teacher can construct a questionnaire which the students discuss in small groups. Such a pre-listening activity stimulates the students'

From CATESOL News 1993

curiosity about gaps in their knowledge, and prepares them for a short lecture by a trained health professional to whom each student asks one question from the questionnaire. Students take notes, comparing their predictions discussed earlier in groups with the speaker's answers.

Guest speakers can come from the county health department, AIDS teams, or school health offices. They not only present the class with current factual information, but also set a serious tone for the discussion of body parts and functions, as well as heterosexuality, bisexuality, and homosexuality. Students are then motivated to clarify their ideas and further understand the disease and its consequences by reading an AIDS pamphlet from the health department.

Few AIDS pamphlets may be at the reading level of the students; therefore, using a jigsaw reading combined with a student-generated vocabulary gloss can be a successful strategy to cope with the difficulty of the reading. In the jigsaw reading, each group of students reads one section of the pamphlet and identifies the most important points. Then students complete the jigsaw by sharing their information with students who have read different sections. During the construction of the jigsaw, students take notes on each section. Unfamiliar vocabulary is collected on an overhead transparency by each group. The teacher occasionally asks different groups to exchange transparencies, allowing students to draw as much as possible on the knowledge of the class in explaining the vocabulary. These student-generated glosses are put on the overhead for the students to consult and review.

In the next phase, students are given the opportunity to articulate the knowledge they have acquired from the guest speaker and the AIDS pamphlet by writing a letter to educate an imaginary friend who has no knowledge of AIDS/HIV. In later peer editing of these letters, students not only check each other's understanding of the material, but also relate their personal concerns about the disease, which begins to shift the theme from the scientific and medical to the personal domain.

Although conveying correct medical information is of paramount importance in an AIDS unit, developing empathy for those who live in the shadow of the disease plays a crucial role in dismantling negative stereotypes. Learning the personal stories of AIDS patients, their friends and family members through articles such as "Mom, I have AIDS" (Seymore 1993) or videos such as "The Quilt" brings to light the hardships which these people face and raises for analysis the cruelty of social ostracism and discriminatory attitudes.

After examining both the medical and emotional aspects of the disease, students participate in values clarification activities to simulate

the choices they might take in situations involving degrees of risk. "Dear Abby" (Dreyer, 1992, p.20), another letter writing activity, elicits student debate regarding social responsibility. The teacher introduces the assignment with an example of a real "Dear Abby" column from the newspaper, after which students are instructed to read the sample letters to Abby in Dreyer (1992). As the students discuss how they would respond to each letter, one student takes notes for the group. After sharing their ideas with the class, the students choose and respond to one letter with advice as if they were Abby herself. "The Risk Game" (Dreyer, 1992, p. 21) is another activity which allows students to debate the level of risk in different activities.

In order to shift the theme to the global effect of AIDS, students work with compatriots to locate and summarize an article from the library about AIDS in their country, from which they prepare oral presentations. By sharing this information, students not only learn about the global extent of AIDS but also share their fears and frustrations, as did two Thai women who spoke of the rampant AIDS problem in their country, which began through prostitution due to the exploitation of the poor. Students often discover a lack of information, which leads to discussions of AIDS in politics and the importance of AIDS education. Many students come to the conclusion that their governments do too little and schools approach the topic too late. It is hoped that students will take these concerns back to their countries and demand change.

As the plague of the twentieth century, AIDS is likely to touch us all. As ESOL teachers, our immediate action in responding to the TESOL AIDS Education Resolution is of the greatest consequence because education is the only weapon we have in the fight against this disease. By focusing on this specific purpose, ESOL teachers are in a position to have a timely and lasting effect upon the world.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Discuss the notion of "dangerous English," which usually concerns words related to human sexuality and bodily functions. Under what circumstances, if any, is it appropriate to include

the teaching of such words and phrases in the EFL curriculum?

2. The author describes AIDS education teachers as "facilitators of social responsibility." Do you agree that it is a teacher's job to facilitate social responsibility? If so, what other aspects of life do you think a teacher might include in facilitating such responsibility?
3. In many countries, religious beliefs are very strong. Discuss the difficulties you might encounter in dealing with a topic such as AIDS in your country. Have these ideas changed at all in the years since AIDS was first identified?
4. The trained health professional who was invited to the class as a guest speaker is an example of a "specialist informant," which many ESP practitioners believe is important in ESP research. What are the advantages of working with a specialist informant in ESP? Can you foresee any disadvantages?
5. Many effective language tasks consist of a series of steps, each dependent on the previous step for its completion. In this article, the author calls the steps "phases." Summarize the phases the author describes and explain how each is dependent on the previous phase. Which language skills (listening, speaking, reading, writing) does each phase involve?
6. What is meant by "peer editing"? When is it appropriate to do peer editing in class?
7. Discuss the following comments:

   - "It is hoped that students will take these concerns back to their countries and demand change."
   - "ESOL teachers are in a position to have a timely and lasting effect upon the world."

   Is it appropriate for a teacher to make her students into "activists" in this way? What would be the response of teachers and parents in your country?

Activities

1. "Urban legends" are modern-day stories that usually concern "a friend of a friend" (i.e., someone the storyteller does not actually know). They often reflect deep fears a society may have. Ask the group if they have ever heard an "urban legend." If so, ask them to share it with the group. What fear does each legend appear to be concerned with?
2. Have each member of the group write three questions that they have about AIDS. Use these questions to create a brief questionnaire in your group that you could give to your students to determine what they already know about AIDS.

3. How would you prepare your class to make the best use of the visiting guest speaker described in this article? Make a list of the kinds of language skills your students would need.
4. "Values clarification" refers to the determination of individual values or beliefs. Values clarification exercises have no right or wrong answer and thus allow students to express their own beliefs for themselves. A very simple example of a values clarification exercise is the following:

   What is your favorite season? a) winter b) spring c) summer d) fall/autumn.

   Have each member of the group select their favorite season. Starting with the answer that draws the largest number of responses, ask them to explain why they chose that answer (each speaker must present a reason, even if it repeats what someone else has already said; no one is allowed to say simply, "I agree with the last opinion") until everyone in the group has spoken. What other subjects might serve as the subject of such an exercise (e.g., favorite pets/trees/food)? Can you imagine a more controversial question?
5. Brainstorm a list of the things you would need to do to prepare your students to use the library. What would you do if no library were available?

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English for Vocational Purposes

EVP

OCCUPATION-SPECIFIC VESL

Linda West

Occupation-specific VESL is concerned with determining the language needs for success in a particular vocation and applying ESL techniques to meet those needs. The essential goal of such a program is to reduce the time required for a student to actually be functioning in a workplace of his or her choice. The planning and implementation of a course in occupation-specific VESL involves determining the needs, language requirements, and content areas of a particular occupation.

NEEDS ASSESSMENT

The needs of an ESL student in a specific occupation are determined primarily from reference materials and observation. Reference books and vocational guides for native speakers delineate the essential subject matter. Observation in vocational classrooms, when this is part of vocation-specific training, determines the academic requirements, e.g. the method of presentation (lectures, audiovisual material), the kind and amount of reading, and the kinds of tests administered. Job-site observations describe the nature of communication on the job, e.g., what a worker needs to read and understand, the nature and amount of personal interaction, and the physical nature of the workplace (outside or inside, noise level, etc.). Pre-vocational needs (e.g., applying for, getting, and keeping a job) are determined by job developers, who establish liaisons between students and prospective employers.

LANGUAGE REQUIREMENTS

The language requirements in occupation-specific VESL concern vocabulary, situations, functions, structures, and register. These are discussed in terms of automechanics in order to make them more concrete. The vocabulary of a native-speaking automechanic is usually built up from a lifetime of familiarity with car models, parts, and tools. To compete, the VESL student needs to know the names of autobody parts (*fender, bumper, windshield*), interior parts (*dashboard, steering wheel, clutch pedal*), autobody types (*coupe, sedan, pickup*), and makes and models (*GM, Ford, Civic, Bug*). He must be familiar with the names of tools (*wrench, socket, timing light*), auto parts (*fan, oil filter, brake shoe,* not to mention *nut, bolt, wire*), and systems (*the cooling system, the fuel supply, the drive train*).

From CATESOL News 1984

In the workplace, a student can expect a variety of situations, such as getting a tool, giving assistance, or sometimes taking customer orders. These often overlap with the function component, which includes requesting, identifying, and apologizing. The teacher concentrates on giving students a variety of ways to say the same thing, typically supported with role plays and dialogs. The register component teaches students the different "tones" appropriate for teachers, supervisors, customers, and coworkers.

CONTENT AREAS

The content areas in occupation-specific VESL include equipment, safety, procedures and processes, quality control, measurement and mathematics, and pre-vocational ESL. These, too, are discussed in terms of automechanics. The vocabulary language requirement overlaps with the equipment content area in regard to tools and parts. This can be facilitated by using automobile brochures and having students describe the particular car or project they are working on at a vocational school or elsewhere. Safety is first taught in relation to tools. Mechanics shops typically have pages of safety rules (e.g., *Don't leave tools on a car when working under it, Don't keep tools in pockets*). Safety also concerns being aware of dangerous situations (e.g., connecting a battery, lowering a lift) and giving warnings (e.g., *Watch out! Be careful!*).

Procedures and processes also overlap with the vocabulary section. If the cooling system of an automobile is the focus in a vocational class, the VESL class can support it with readings on the cooling system. The linear nature of English can be a problem, especially for Asian students, who are used to a culturally different rhetorical pattern. Familiarity with the linear form can be facilitated by using strip stories, in this case describing how the cooling system works. TPR (Total Physical Response) techniques also work well in dealing with procedures and processes. The teacher begins by dictating a set of instructions which the student must follow using actual materials (e.g. *Pick up a 5/8 wrench, Loosen the bolt*). The student then dictates instructions to a partner. Quality control includes how well the job is being done (e.g., *Is the camshaft play accurate? Are the spark plugs correct for this model?*).

Measurement and mathematics have been found to be a necessary content-area focus. Mechanics do not simply ask for a socket; they ask for a 11/16 socket. Although students usually understand metric measurements from prior experience, they are rarely familiar with fractions.

Finally, students need some exposure to pre-vocational ESL, including being familiar with the world of work, accessing jobs, and surviving interviews.

Occupation-specific VESL is a response to a need. Most adults simply do not have the time to attain the total language development that some critics of ESP claim they need. The opportunity to learn or practice a skill in a controlled, non-threatening environment allows the intermediate ESL student to obtain a specific job sooner than he or she otherwise would. The realization of immediate goals that occupation-specific VESL offers is clearly superior to the prospect of living on welfare until sufficient language has been learned to get and hold a job.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author states that "the essential goal [of occupation-specific VESL] is to reduce the formal language learning time required before the students can function in a workplace of their choice." Is this a realistic goal? Discuss some of the problems that might arise in reaching such a goal.
2. This article was written in 1984 when the notion of needs analysis was not yet very developed. We now know that the ESP course designer needs to consider the needs of the job (including coworkers), the needs of the supervisor and/or boss, the needs of the field, profession, marketplace, or product, the needs of the institution, and the needs of the student in order to produce a successful ESP course. Which of the needs does the author of this article identify? What needs are not addressed? How would you go about determining these needs?
3. The author states that "the teacher concentrates on giving students a variety of ways of saying the same thing." For what kinds of language elements is such a goal necessary? Can you think of a situation in which there is really only one way of saying something?
4. The article states that vocabulary can be facilitated by "having students describe the particular car or project they are working on at a vocational school or elsewhere." What presumption does this make about the English proficiency level of the student? Do you think ESP can be taught at all levels?
5. What is meant by "the linear nature of English"? What other patterns of rhetorical development exist? Ask your non-native-English-speaking colleagues for examples.
6. What is TPR (Total Physical Response)? Describe three specific examples that would be appropriate in the workplace.

Activities

1. Register is concerned with different levels of formality. How would you greet the following individuals upon meeting them for the first time in the day?

   a. a teacher
   b. a supervisor
   c. a customer
   d. a co-worker

   How would you say goodbye to the same individuals?

2. Look at the example sentences provided in the article and determine what grammatical element is usually central in the following categories of workplace language:

   a. safety rules
   b. warnings
   c. instructions
   d. quality control

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AVIATION ENGLISH

Carol Sisco-Fletcher

"Language barriers may pose problems on a runway," the title of an article in the September 1986 issue of *Western Flyer*, discusses the alternate action an American air carrier requested when it became apparent that the pilot of a nearby foreign airliner had not understood the controller's instructions he had just received. This article underscores the need for aviation English, especially courses that focus on speaking and listening comprehension skills.

Aviation English can be divided into two categories: flight theory and verbal communications between air traffic controllers and pilots. Flight theory, which incorporates aerodynamics, meteorology, weight and balance, aircraft performance, aerial navigation, etc., is taught in the same manner that any content course is taught. Air traffic control (ATC) communications, on the other hand, requires a different approach. It needs to focus on the discourse strategies characteristic of both pilot-controller and student-instructor communications.

Having taught ESP to Japan Air Lines pilot trainees for the last ten years, I have gradually found a need to include discourse-based lessons in my syllabus. Time restraints (38 hours for any one course) limit the total number of hours I can devote to these lessons. However, the 10 to 12 hours that I have incorporated into the syllabus have resulted in improved student competence and performance in ATC communications.

INITIAL EFFORTS

My early ESP lessons focused mostly on listening comprehension. Each lesson began with a description of the situation, for example, "This flight goes from Napa to Stockton along V-108 to Lodi Intersection, then V-585 to Manteca direct Stockton" (the route of flight). Next, the students would tell me what they expected the controllers to say along the way. (That information, by the way, would have already been covered in a previously taught ATC procedures lecture class.) After focusing the students' attention on the type of ATC communications they might expect to hear, I played short segments of recorded flights, asking the students to summarize what they had heard. Most of the time, however, each segment had to be played three

From CATESOL News 1987

or four times before the students understood well enough to summarize the situation. Although their overall listening skills appeared to be improving, the students still missed many relatively easy phrases. As I observed more and more instructor-student briefings and training flights, I realized that students were having problems with reduced speech and inferred information.

ADJUSTMENT TO NEEDS

For this reason, I decided to add reduced speech exercises to my syllabus. Although I have only used these new lessons with three classes over a 10-month period, the present students appear to be comprehending more "slurred" speech than previous students did at the same stage. I have not had to repeat oral questions nor have I had to replay ATC recordings as many times as I did with my former students.

I have also introduced strategies for comprehending inferred information into my ESP classes. Both instructor student briefings and pilot-controller interactions frequently require our students to comprehend implied situations. For example, after reading the weather information with two students, one flight instructor said, "Well, what do you think?" The students looked at each other and then looked at the instructor and said with continued rising intonation, "What do you think?" They had not realized that the instructor had expected them to explain how the weather would affect their flight and what alternate actions they planned to take. Since most of our students have not had previous exposure to this type of English training, I now try to provide situations that will require the students to consider implied as well as explicit situations in both the regular English lessons as well as the ESP classes.

Although progress has been slow, the students who have had more practice in responding to implied situations appear to comprehend new situations more easily and seem less frustrated. And when students are less frustrated, they have a better chance of understanding what is happening around them, thereby minimizing the opportunities for "language barriers" to develop.

REFERENCES

"Language barriers may pose problems on a runway," *Western Flyer*, September, 1986.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author states that flight theory "is taught in the same manner that any content course is taught." Should such a content course be taught differently for non-native-English speakers than for native speakers? If so, what should be done differently? (Imagine yourself learning a specific content area in a second language in a foreign country. What would you need to be able to do this successfully?)
2. The author indicates that, most of the time, the short segments of recorded flights "had to be played three or four times before the students understood well enough to summarize the situation." Can you suggest any intervening activities before summarizing that might have been added to help the students accomplish this difficult task?
3. What is meant by "reduced speech"? If it is simply "slurred" speech, why would you want to make students understand it? Is reduced speech common in spoken language or is it a form of laziness?
4. In order to find out how the weather would affect the flight and what alternative actions the students planned to take in the situation described, the instructor asked, "What do you think?" However, this question makes many assumptions about the listener's previous knowledge. It also raises an important issue in ESP, which is whether the student and ESP teacher have to make all the adjustments in understanding the language used by a content instructor (and other members of the field) or whether such individuals can also be expected to make some adjustment towards greater clarity of expression. Discuss this issue. How else could the instructor in this case have phrased his question to make it clearer to his students? Is this an issue that only affects non-native speakers?

Activities

1. How would the following reduced sentences be said in slow and careful speech?

   Example: Djeat yet? = Did you eat yet?

   a. Whacha gonna say?
   b. Dya know when 'e's leavin?
   c. I dunno whaday hafta write.
   d. They shoulda told er before.
   e. Whadaya doin' fer yer sister's birthday?

2. What are the possible implications of the following everyday statements or questions?

   Example: Is there any salt? = Could you pass the salt? (or: This food doesn't have much taste.)

   a. Isn't it a little cold in here?
   b. May I wash my hands?
   c. I'm sorry, but I'm on a diet.
   d. Is it 10 p.m. already?
   e. Nice talking to you.

3. Analyze the statement mentioned in the article: "This flight goes from Napa to Stockton along V-108 to Lodi Intersection, then V-585 to Manteca direct Stockton."

   a. What place names are mentioned (depending on map knowledge, not language knowledge)?
   b. What terms are specific to aviation English?
   c. What are the remaining content words (nouns, verbs, adjectives, and adverbs that have a distinct meaning)?
   d. What are the function words (determiners, prepositions, etc. that show relationships between content words)?
   e. What can you conclude about this sample of aviation English?

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English for Hotel Management

Linda Hollandsworth

The specific purpose, or content focus, of English for hotel management is the language used in hotels and restaurants, where English is needed to communicate with customers. Courses are developed according to the tasks the students need to accomplish and the contexts in which they will have to complete these activities. English for hotel management requires extensive practice with day-to-day spoken English, both formal and informal.

The English needed for hotel management includes being able to respond to and resolve any problem that might arise when the guest arrives at the hotel, during the stay, and when the guest leaves the hotel. Classroom activities devoted to these areas involve an understanding both of expectations regarding courtesy and the full spectrum of services provided for hotel guests. These three main areas of focus in the hotel management curriculum revolve around the guests and the language necessary to provide services that will keep those guests coming back to the hotel.

CHECKING INTO THE HOTEL

The English involved in helping a guest to check into the hotel can be divided into three functional areas that describe the work routines of hotel personnel in the registration area or at the front desk: taking reservations by telephone, responding to inquiries for reservations by letter, and receiving guests. Taking reservations by telephone requires simple questions with *can, could, who,* and *what* that are practiced without the aid of face-to-face visual feedback. Students can practice telephone dialogs that take place between the front desk clerk and the hotel guest in pairs beginning with simple introductions (e.g., "Good morning. Can I help you?"). Role plays are also very good for practicing the appropriate response to an incoming telephone call. Responding to written requests for reservations requires instruction in the business letter format, the appropriate content sequence, and the formulaic phrases expected in such a letter. Students can also practice greeting customers face to face, asking for verification of reservation information, inquiring about the form of payment, giving directions to the room or places outside the hotel, and recommending other hotel services. The process of receiving

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guests might also require providing information about the hotel and the location of restaurants and facilities.

STAYING AT THE HOTEL

The English used in this aspect of hotel management involves all of the departments within the hotel that directly affect the guests, namely housekeeping, restaurants, and special services such as those offered by the concierge and catering services. Students can practice writing instructions from one shift to another in any department. They can also use role plays to practice communication between manager and employee, employee and guest, or employee and employee. For example, the future concierge may want to practice giving information to guests about places inside and outside the hotel, tickets for entertainment, and schedules for transportation. In the restaurant, students can practice using English in the positions of waiter or even head waiter (maitre d'hotel) with exercises that focus on welcoming customers, directing them to their tables, and listening and responding to requests for translation or description of menu items. They also need to practice comprehending an order in English, explaining the bill, apologizing for errors if necessary, and knowing the appropriate non-verbal behavior to maintain the respect of the customer.

After studying these areas, students need to be introduced to the other aspects of hotel management, including security, building maintenance, accounting, personnel, and sales. It is especially important to have students complete listening exercises in these areas, such as getting specific information concerning numbers, dates, and times. Students have a further chance to practice their writing skills when they practice applying for a job through the personnel department or designing a brochure when they discuss the sales department.

CHECKING OUT

Finally, students need to practice some of the language used in dealing with customers who are leaving the hotel. They especially need to practice handling customer complaints and the payment of bills. For example, a student can role play a guest asking the front desk clerk about the bill, using an expression such as "This can't be right!" The front desk clerk might respond with statements such as "I'll check it for you" or "I'm afraid there is no mistake."

CONCLUSION

A course in hotel management takes students through a number of hotel and restaurant routines, beginning with telephone inquiries and reservations and ending with the payment of bills, queries and farewells. With the boom in the hotel industry and the availability of travel in this day and age, more and more students are choosing

careers in hotel management, where English is the primary language of international communication. The training of such students is an exciting prospect for ESP teachers, who can use their creativity and their own traveling experience to make links between classroom activities and real-life situations.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. The author states, "Taking reservations by telephone requires simple questions with *can, could, who,* and *what* that are practiced without the aid of face-to-face visual feedback." Provide an example of a question with each word (i.e., *can, could, who,* and *what*) that you might use on the telephone.
2. Construct a short telephone dialog beginning with "Good morning. Can I help you?" that might take place at the front desk between the front desk clerk and a hotel guest.
3. What are the formulaic phrases expected in a business letter?
4. Translate the following hotel functions into real speech:

    a. greeting customers face to face
    b. asking for verification of reservation information
    c. inquiring about the form of payment
    d. giving directions to the room or places outside the hotel
    e. recommending other hotel services
    f. receiving guests
    g. providing information about the hotel and the location of restaurants and facilities.

5. The level of formality that we use (formal, semiformal, informal) changes depending on the relationship between the speakers. How would the second person in the following pairs of speakers a) ask for an aspirin, b) complain about another worker, and c) comment on the bad weather?

    1) manager and employee
    2) employee and guest
    3) employee and employee.

6. Translate the following restaurant functions into real speech:

    a. welcoming customers
    b. directing customers to their tables
    c. responding to requests for translation or description of menu items

d. clarifying an order in English
e. explaining the bill
f. apologizing for errors if necessary

Activities

1. Make a list of the expectations regarding courtesy that a hotel guest has in your country. Then make a parallel list of the same expectations in other countries you have visited or know about (one list for each country). What expectations are different? Are these things learnable? If so, what does this suggest about the curriculum focus in the classroom?
2. The steps (sometimes called moves) in a typical letter to confirm a reservation are (1) sender's address; (2) date; (3) receiver's address; (4) greeting; (5) confirmation of reservation; (6) invitation to adjust if necessary; (7) closing; (8) signature. Analyze the following letter for the "steps" that occur in the letter.

Excelsior Hotel
11 Sunset Lane
Hilo, HI 89898

January 23, 1998

Mr. Adrian Smith
300 Cleveland Drive
Cooperville, IN 45678

Dear Mr. Smith:

I am writing to confirm your reservation for the nights of Saturday, March 11 and Sunday March 12, 1998. I have given you a room that is on the ocean side of the hotel on the top floor. If you are not satisfied with this arrangement, could you please write or call by March 1, 1998 (as we need to block out rooms for a convention)? We very much appreciate your business.

Sincerely yours,

Ronald Greep
Reservation Desk

3. Using the following bus timetable, answer the following questions:

San Jose Caltrain	1st & Santa Clara	San Jose Civic Center	Weller & Main	Fremont BART Station
625	630	636	646	709
725	730	736	746	809
755	800	806	817	840
825	830	836	847	910
855	900	906	917	940

a. What is the earliest bus that will get me from the San Jose Caltrain to the San Jose Civic Center?

b. I need to get to 1st and Santa Clara by 8:15am. Which bus should I take from San Jose Caltrain?

c. If I take a bus from San Jose Caltrain at 7:55am and get off at Weller & Main to do some shopping, when is the next bus that goes to the Fremont BART Station?

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ENGLISH FOR TOURISM

Peter Master

English for tourism is an example of the subset of ESP known as English for Occupational Purposes (EOP), or VESL (Vocational ESL). In Britain, the term "microlanguage" is used to refer to the limited subset of language and functions required in an ESP setting. In recent years, the name "Workplace ESL" has also begun to be used in the U.S., although this term appears to be limited to the type of ESP that is taught in the corporate environment. Since tourism will require an English-language component only in countries where English is not the primary language, it follows that the need for this kind of ESP will occur more often in an EFL than in an ESL context.

The English required for tourism can be divided into three principal areas: planning a tour, booking a tour, and conducting a tour. Since much of a tour operator's work requires direct involvement with clients, it follows that the skills of speaking and listening are of primary importance. However, writing is also necessary in the generation of inquiry, offer, and confirmation letters, fax and telex communications, itineraries, and the like. Such written forms naturally need to be read, as do timetables, brochures, and descriptions of historical and artistic features. Thus, all the traditional language skills can be incorporated in the teaching of this kind of ESP.

PLANNING A TOUR

Planning a tour has three logical stages: an inquiry by a client, availability research by the tour operator, and the offer of a proposed itinerary. The inquiry stage is an opportunity to introduce both telephone speaking and business letter writing skills. Telephone skills can be practiced with dialogs using common formulas (e.g., "Superba Travel Agency. Can I help you?"), open-ended dialogs with and without cues, and role play in pairs. Relevant aspects of English stress and intonation are taught as needed in this listening-speaking activity. Business letter writing skills require a model format with descriptions of the conventions of greeting, introduction, and closing formulas, which the students practice by means of exercises such as filling in model letters with blanks, and later model letters with cues (e.g., Describe yourself and express your intention at the beginning

of the letter). To complete this segment, students can be asked to write letters of inquiry on their own. The completion of each phase of the segment should not be a lockstep procedure, i.e., other activities about other aspects of planning, even other segments, should be taught simultaneously to assure a variety of activities to maintain student interest.

Availability research requires getting information and is thus a good opportunity to practice skimming and scanning skills from written sources and focused listening skills from spoken sources. Exercises such as listening for details should be based on authentic materials (e.g., brochures, timetables, automated telephone recordings), and they should lead to both written and oral presentations, including letters of inquiry and telephone calls to tourist agencies in the countries where the client plans to travel.

The offer of a proposed itinerary requires precision in pronouncing dates, times, and other essential travel details. This is a good point at which to introduce specific stress and intonation patterns (e.g., rising and falling intonation on the last word in "Flight 457"). An itinerary also requires skills in organizing information. These can be practiced with strip stories and other scrambled sequence exercises.

BOOKING A TOUR

Booking applies to two important aspects in setting up a tour: the means of transportation and the accommodations. Transportation, whether by air, sea or land, is typically arranged by means of a telex. It is thus appropriate in this segment to introduce the format and abbreviations used in sending and receiving a telex. Bookings are also accomplished via the telephone, so the dialog format described under planning can be adjusted to reflect the language and functions of booking reservations.

The same procedures are appropriate for booking accommodations. In addition, the memo format (i.e., To:, From:, Date:, Re:) is an appropriately informal way to send information via fax machines. This can be practiced using the increasingly demanding letter writing exercises described above but substituting a model of a memo in place of a formal letter.

CONDUCTING A TOUR

Conducting a tour includes welcoming the clients at the port of entry, presenting the tour program at the hotel, guiding the tour, and handling complaints Welcoming at the port of entry will include helping the members of the tour through the customs and baggage claim areas if the guide is traveling with the group, or preparing a sign and welcoming activities if the guide is meeting

the group at the port of entry. These are primarily speaking activities (although having students prepare appropriate welcome signs could be a focused writing activity) and they can be practiced with dialogs and role play activities. It is typical for a tour guide to provide a description of the facilities on the bus to the hotel, including the weather prognosis in the area and the meeting point and time for the next day's activities.

Presenting the tour program at the hotel requires a presentation of the overall plan of the tour, the daily activities, and the free periods, including information concerning possibilities available outside the programmed tour. Speaking activities, including map reading exercises, are appropriate here

Guiding the tour is perhaps the most demanding of a tour conductor's responsibilities. Reading up on the history of an area and the artistic merits of a local site is an opportunity for students to engage in library research and the writing of descriptive passages. An oral presentation should be generated from this research, and the students can evaluate the effectiveness of an individual's presentation.

Finally, the tour conductor must deal with the clients' potential complaints. These are ideally practiced in role play situations after samples of appropriate language and functions have been presented and discussed.

CONCLUSION

ESP for tourism is well developed in European countries, and the demand appears to be increasing in other countries, too, as they start to realize the economic potential of professional training for and management of tourism. ESL/EFL teachers who choose to work overseas might well find themselves in positions requiring this kind of ESP, especially if they are attracted to English instruction that places primary emphasis on the speaking and listening skills.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Do you agree that tourism will only require an English-language component in countries where English is not the primary language? Why or why not?
2. The author states that a teacher should provide "a variety of activities to maintain student interest." Would it not be better to focus on one aspect at a time so as not to confuse the students? Discuss the advantages and disadvantages of a varied curriculum.

3. What are skimming and scanning skills? What kinds of text is each one most appropriate for? (e.g., Would you skim a telephone book? Would you scan a novel?)
4. Discuss what kinds of classroom activities could be based on automated telephone recordings (e.g., airline flight arrivals, passport information office, road conditions).
5. Describe the circumstances in which you would send a memo as compared to a formal letter.

Activities

1. A cued open-ended dialog describes what the speaker is to say without providing the exact words, as shown in the following example of a tour operator making a telephone call to an airline:

   Airline: (answers by identifying airline and greeting the caller)
   Tour Operator: (responds to greeting, identifies self and company, and states purpose of call: to find a specific flight for a customer)
   Airline: (asks the tour operator for destination, date, and approximate time of flight)
   Tour Operator: (provides information with flight number)
   Airline: (asks Tour Operator to wait while information is sought, provides information)
   Tour Operator: (repeats information)
   Airline: (confirms accuracy, asks if there is anything else she can do for the Tour Operator)
   Tour Operator: (declines further assistance, thanks Airline, closes the conversation)
   Airline: (thanks Tour Operator for call, closes the conversation)

   Create a similar cued open-ended dialog for a telephone call from a client making an inquiry at a travel agency.

2. Focused listening skills provide all the information the student needs in written form except for a single element which must be filled in by listening, as shown in the following example:

   Teacher reads: Mr. Grant will be arriving on Air France Flight 26 at 2 p.m.
   Student text: Mr. Grant will be arriving on Air France Flight ____ at 2 p.m.

   Name three other elements from the tourist industry that would be appropriate for such an exercise and create a similar example for each one.

3. An intonation pattern indicates three tones or levels of pitch that are used in making a statement: Level 1 is the highest pitch, Level 2 in the middle, and Level 3 the lowest pitch. For example, "Flight 457 (flight four fifty-seven)" and "Flight 208" (flight two oh eight) are usually said like this:

Level 1: sev-	eigh-
Level 2: flight four fifty	flight two oh
Level 3: -en	(i)t

Notice that the word *eight* in *Flight 208* begins at Level 1 and glides down to Level 3.

Using a similar chart, indicate the three levels of the following statements:

a. 11:05 in the morning
b. 473-1992
c. $52.30
d. L-1011
e. LAX

4. The following is an example of a strip story. Each sentence is normally printed on a strip of paper and distributed to individual volunteer students. Each student memorizes his or her sentence and returns the strip to the teacher. The students then have to work out the correct sequence of the sentences by asking each other what their sentence is and arranging themselves in the proper order. To get a sense of how this works, write a number before each of the following sentences to indicate the correct sequence.

_____ "Yes, there is," said the man.
_____ The doctor examined him and looked worried.
_____ There was once a man who was very sick.
_____ "You haven't very long to live."
_____ He decided to tell his patient the truth.
_____ "Now tell me, is there anyone you would like to see?"
_____ "You are a very sick man," the doctor said.
_____ "Who is it?" asked the doctor?
_____ In a strong voice, the man replied, "Another doctor!"
_____ "I'm certain you want to know the facts."
_____ He went to see his doctor.

5. Role play is an important aspect of ESP for tourism. Make a list of all the possible role play situations mentioned in this article.

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EVP

WORKPLACE ESL FOR DISPLACED FARM WORKERS

Tim Donahue

In Hawaii, the decreasing economic role of plantation agriculture has impacted the English language needs of farm workers displaced from their jobs. Typically, these workers are immigrants who have maintained first language work and social environments. When international competition and distant corporate decisions shatter their lifestyle, these people are at a severe disadvantage in dealing with English dominant culture. Recently, the closure of the Dole pineapple cannery resulted in 450 workers needing new jobs. In response, their union contracted Hawaii Human Development to put together a class in "English for finding a new job."

The program used a bilingual approach, separating participants into Ilokano and Cantonese speaking groups. The instructors used first language to elicit cross-cultural comparisons of the job search process. Through their discussions, participants discovered the standard means and resources for finding a job, and came to realize the points in the process when they would need to use English. Instructors guided the participants to articulate their skills, interests and experience in English, to understand what job ads say and do not say, to ask for relevant information about jobs, and to present themselves appropriately in both formal and informal interview situations. In these contexts, participants would produce their own English-language dialogs and role play the situation.

The success of the program was evaluated not by measuring language gains but by noting participants' access to the job market. Although only a few participants found new employment immediately upon completion of the class, they reported back that the class was instrumental in their landing jobs. Most of the participants decided to take advantage of government-sponsored job training programs. These people commented that the class had been important in their decision-making about the type of training to pursue. The remaining participants enrolled in further English language classes with confidence and a better understanding of their particular needs for the language. With these results, the program can be considered

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successful. Access to the job market, though not necessarily direct, was provided. Participants either found jobs or demonstrated their understanding of the job search process by directing themselves into the most appropriate further training venues.

On the other hand, there is the basic question of whether or not this particular program was the appropriate response to the closing of the cannery. The numbers of participants have been intentionally disregarded up to this point in order to highlight the pedagogical approach and its effectiveness. The fact is that out of 450 displaced workers, only nine enrolled in the classes. It is worth examining how the program was established as a cautionary note to other workplace ESP endeavors.

Preliminary to any workplace program, goals must be clearly defined and the support of union and management must be firmly in place. In this case, the management was indifferent; after all, they were closing down. It was the cannery union leadership which felt a responsibility to the members and voted to offer job search training. It was known that at least one third of the membership was limited in English proficiency and that that same group had been employed solely by the cannery in all their years in this country. These facts led to the assumptions that lack of English skills and unfamiliarity with the job search process were the primary barriers to these workers' reemployment. Therefore it followed that the best rapid response to the situation by the union was to offer an ESP course to highlight job search skills.

Missing from the reasoning was, of course, the input of the workers themselves. It became clear only later that many planned to take the maximum unemployment benefits allowable before looking for another job. Though saddened by the loss of employment, they were not panicked by it. Most of those needing immediate employment planned to use the resources of their first culture networks to find new jobs. Still more were dropping out of the job market altogether, either to retire or to contribute to their families' well-being by means other than a secondary income. Had these factors been known, it should not have been so surprising that, despite intensive advertising and recruitment efforts, the union signed up only nine workers for the class.

There are disturbing implications in this anecdote on the degree to which anyone in the workplace is actually in communication with the LEP worker. The good intentions of union and/or management and educational provider are not enough. The goals of workplace ESP must incorporate the input of all parties. Since the workers themselves are by far the most numerous party, they must be included in

the process of determining needs and goal setting. Ultimately, it is their participation which will indicate the relevance of the program.

APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. What ESP classification would "English for finding a new job" come under?
2. Discuss the instructors' use of first language "to elicit cross-cultural comparisons of the job search process." Was it appropriate to use the first language rather than the target language in this case? Why or why not?
3. Discuss the author's statement that "the success of the program was evaluated not by measuring language gains but by noting participants' access to the job market." Was this a reasonable goal to measure success by in this case? If only a few students found jobs after the course, shouldn't the class have been considered a failure?
4. Why do you think only nine out of 450 workers signed up for the class?
5. The author states, "Preliminary to any workplace program, goals must be clearly defined and the support of union and management must be firmly in place." If this were a business ESP course, what would be the equivalent to "union and management"? Why would the support of this group (or individual) be important for a successful ESP course?
6. The author states, "Missing from the reasoning was, of course, the input of the workers themselves." A term we use today in ESP to describe the generation of an appropriate needs analysis is *triangulation,* which is the use of three or more sources of information. What aspects needed to be considered in this case for an adequate needs analysis?
7. What are the "disturbing implications" that the author mentions? Why are they disturbing?

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EVP

CAREER EDUCATION FOR HIGH SCHOOL LEP STUDENTS

Audrey Gendron

Career education is designed to provide support services services in elective courses in various career pathways for high school Limited English Proficient (LEP) students. The courses are all Specially Designed Academic Instruction in English (SDAIE) classes that are taught by Language Development Specialist (LDS) or Cross-Cultural Language Acquisition and Development (CLAD) certified teachers. SDAIE has as its goal the teaching of both content and language to students who are not fully proficient in the language of instruction. Students who are designated LEP need this instruction in order to make academic language comprehensible to them. It is most appropriate for students who have reached an intermediate level of proficiency in English (in all four skill areas) and who possess basic literacy skills in their first language. These courses are challenging and academically rigorous, not watered-down versions of the original course (California Teachers of English to Speakers of Other Languages, 1993).

The SDAIE courses in the career pathways program are designed to allow LEP students equal access to both the core curriculum as well as to entry-level or bridge courses in career pathways in business, consumer home economics, and technical education.

THE PROGRAM

In our program in the Fresno Unified School District, the classes we have adapted so far to the SDAIE format include typing, computer literacy, sociology, clothing, physical science/electronics, wood, metal, CAD (computer-aided design) drafting, and principles of technology. Bilingual instructional assistants work with LEP students in these classes as needed, using the primary languages of the students.

Before entry into high school, each ninth grade LEP student is sent a brochure which has been translated into a language that his/her parents can understand, providing awareness and suggesting participating

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in career pathway programs. LEP students are encouraged to complete both academic and elective graduation requirements by taking courses in which the hands-on delivery of instruction complements their learning style. Students are guided by school and special needs counselors to choose electives that are sequenced and articulated within one of seven career pathways (agriculture; arts, communications and human services; business consumer and family studies; engineering technology; health sciences; and industrial technology).

The first course which offers an introduction to these pathways is sociology, a ninth grade class required for graduation which includes a career awareness and exploration unit. Students also visit the Career Center, where a career specialist presents an employment skills unit in conjunction with special resources for LEP students. Through this center, students have the opportunity to explore occupations which interest them and to interview representatives at several career fairs held throughout the school year. LEP students are invited to separate sessions of these fairs, where bilingual assistants are present to assist them.

EVOLUTION OF THE PROGRAM

During the initial year of the five-year period for which we were funded, our focus was on reviewing vocational materials and model programs for LEP students. In conjunction with other English Language Development (ELD) teachers, we devised a non-job-specific prevocational unit of instruction for use with beginning, intermediate, and advanced levels of ELD classes. Texts, videos, and other resources were chosen and purchased for use by teachers on a checkout basis.

During the second year, career pathway classes were polled and assessed to determine the needs of the LEP students enrolled. As the LEP resource teacher, I met with teachers, analyzed their class enrollments according to linguistic diversity, decided which LEP students needed additional help, and met with teachers to discuss strategies for serving the needs of the students. I interviewed, hired and placed college students who would work as bilingual assistants in targeted career pathway classrooms.

During the third year these activities were continued and expanded while I devised a handout entitled, "Guidelines for Teachers with Bilingual Assistants," which was designed to encourage teachers and assistants to develop appropriate methodologies, strategies, and materials for LEP students. This past year, I have worked with the career center specialist at each school to develop units of instruction and acquire materials appropriate for use by LEP students when they visit the Career Center.

EVALUATION OF THE PROGRAM

Approximately 22% of the high school students enrolled in a career pathway course in the four targeted Fresno high schools are LEP students. Both formal and informal evaluations have been conducted yearly to monitor progress and success in reaching the program goals. At the end of the 1993 school year, 1794 student graduates of the program were surveyed. Of those polled, 56.8% had successfully transitioned to employment, 26.1% went on to higher education, and 7.5% received additional training after high school graduation. (Many of these students mentioned that they intended to finance further education using the job skills acquired in high school.)

On a written questionnaire at the end of the school year, the great majority of respondents agreed that attitude, attendance, and class performance had improved as a result of their experience in the career pathway class. Students reported having greater understanding of classroom lessons, doing better on assignments, receiving higher grades on tests, and becoming more independent thinkers and workers. Other results were noted by site personnel, who responded that more LEP students had performed successfully and had been introduced to the world of work. More instructors became familiar with the language backgrounds and difficulties of their students. Bilingual assistants made the input more comprehensible for LEP students who had previously avoided these classes. Teachers gained greater awareness of the learning challenges for their LEP students and adjusted their teaching styles and strategies. Ultimately, curricular change and bridge courses contributed to better access to and success in career pathway courses for LEP students.

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APPLICATIONS

Small Group Tasks

Directions: Address the tasks in a group of 4-5 persons. Prepare your group speaker to present your findings to the rest of the class.

1. Why are Specially Designed Academic Instruction in English (SDAIE) classes "most appropriate for students who have reached an intermediate level of proficiency in English (in all four skill areas) and who possess basic literacy skills in their first language"?
2. Discuss how it would be possible to make an SDAIE course both academically rigorous and appropriate for non-native speakers of English.

3. Discuss the presence of bilingual assistants "using the primary languages of the students" in the classroom. What are the advantages and disadvantages of this practice?
4. Why do you think it was necessary for the brochure to have been "translated into a language that his/her parents can understand"?
5. The list of career pathways (agriculture; arts, communications and human services; business consumer and family studies; engineering technology; health sciences; and industrial technology) is quite extensive, but would they have been appropriate in your home country? Would some of them be less necessary? What other pathways would be important?
6. Do you think it is appropriate for high school students in the ninth grade (14-15 years of age) to be concerned with their future careers to this extent? Do you think they should be required to participate?
7. Discuss the evaluation of the program. Do you consider it to have been a success? Why or why not? Can you think of any ways the program might have been improved? Would you have valued such a program when you were in high school?

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