

Content-Based Instruction in Higher Education Settings



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Case Studies in TESOL Practice Series
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CHAPTER 7



Content-Based English for Specific Purposes Course Design: The Case of English for Architecture

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◆ INTRODUCTION

English for specific purposes (ESP) teachers often find themselves teaching a course without possessing any knowledge of the content they are going to teach. Self-instruction seems to be a common trend for teachers in this area (Orr, 1995). This was also our case when we were asked to teach a course in English for architecture. In addition, professors who had taught the course previously had given us the good news: "You will never have the same students two classes in a row," "They hardly ever come to class," "They are late," always ending their remarks with "but they are very nice kids and very creative."

To start our work, we looked at the literature on course design and found a variety of approaches (Brown, 1995; Dubin & Olshtain, 1986; Hutchinson & Waters, 1987; Munby, 1978; Nunan, 1989 & 1998; Taba, 1962). In recent years, course design has become more learner centered, or learning centered, as differentiated by Hutchinson & Waters (1987). Needs analysis has come to be regarded as the starting point of the process, especially in the ESP field, whereas evaluation is now, in most cases, regarded as the final step. Not so according to Brown (1995), however, who claims that "once program objectives have been established, testing is, or should be, a natural next step in the process of curriculum design" (p. 108). In relation to content courses, very little can be found regarding course design (Eskey, 1997).

Due to the special characteristics of English for academic purposes (EAP) courses, we could not meet our future students until the first day of class and therefore could not conduct a complete needs analysis. We did, however, have the reading material, the course objectives, and the goal the Language Department had established collaboratively with the Architecture Department. These gave us the target situation analysis (Munby, 1978). We had also been informed of the characteristics of our prospective students.

◆ CONTEXT

Once informed about our task, we prepared ourselves to teach the 2nd year of a 2-year, four-skill course called English for Architecture and Urban Planning at Universidad Simon Bolivar, Caracas, Venezuela. Students must have completed three

trimesters of General English in order to take this course, so they register for it as sophomores or juniors.

The language level in the classroom is mixed because some students are bilingual and others have studied English in high school or at a private language school. The students also have mixed levels of content knowledge because some begin the course as sophomores while others begin it as juniors. English is an important subject because, although the architectural courses are taught in Spanish, most of the required readings are in English and students must also attend conferences where papers are delivered in this language. Apart from this, and perhaps more importantly, the desired profile of the future graduate is that of a bilingual architect or urban planner.

◆ DESCRIPTION

We began by learning what the current program consisted of and analyzing the course objectives, descriptions, and evaluation system. According to the objectives, the first three trimesters were dedicated to teaching or reviewing the structure of the language and to developing basic listening and writing skills using commercial English texts. The following year focused on discussing architectural readings and giving oral presentations. Students met for two 1-hour and 20-minute class sessions each week through each 12-week trimester. The course evaluation consisted of two exams and quizzes made up of readings with multiple choice questions, a written report about the readings, and an oral project.

Our case describes the changes made to the second year of the program. Once we had information on the program and the types of student involved, we decided to review the material available for the course. There was a reading guide for each trimester, which included interesting texts divided into connected units. The first guide dealt with topics such as construction materials and form, structure and rhythm in architecture; the second covered color, light, space, and scale; and the last touched on different architects' views of architecture. Understanding the guides' content was our first problem; we did not know a large part of the vocabulary in the readings either in English or in Spanish. We ended up with four architectural dictionaries: an illustrated one, a bilingual one, and two monolingual ones (in English and in Spanish).

With the vocabulary problem solved, we spent our summer vacation reading about architecture. We found that although the texts were interesting, classroom methodology, as explained to us by previous professors, was not varied, and every session consisted of in-class readings followed by discussion of the text. At this point we thought that here might be one of the causes for student absenteeism: lack of relevant and motivating class activities.

The course objectives had been designed taking each of the language skills into consideration separately. However, we believe that language, in real situations, is used as a whole and cannot and should not be separated into parts. Therefore, we decided to structure the course objectives using a whole language method (Goodman, 1986) to make the language more authentic to the students. We decided to use content-based instruction (CBI) as our instructional approach. Because it integrates the teaching of language and content (Brinton, Snow, & Wesche, 1989; Crandall, 1987; Mohan, 1986; Short, 1991), it has been considered one of the main

approaches to teaching ESP courses (Master, 1997) and is compatible with the whole language approach (Freeman & Freeman, 1997). CBI has also been found to promote verbal interaction among students (Gonzalez, 1995). An ESP content-based course in a foreign language setting provides the opportunity to design real, meaningful, and motivating language tasks for students. It involves a combination of communicative language objectives, content objectives, and critical thinking skills.

Along with the change in methodology, we considered a change in the evaluation system because we were not very enthusiastic about the kind of evaluation that had been used. We believe that exams and take-home written reports do not really indicate how students have improved and what they have learned, and it is therefore difficult to use them to inform instructional practice. We agree with Genesee (1996) that "second language evaluation in the classroom is concerned primarily with improving instruction so that learning is enhanced" (pp. 14-15). Exams and quizzes do not give teachers a real picture of a student's progress because psychological and other factors may influence the results of an exam. In contrast, alternative assessment gives teachers the opportunity to collect "information about our students' performance in normal classroom conditions" (Harris & McCann, 1994, p. 5). Because students are not placed in a stressful situation, they can show what they really understand and have learned. Alternative assessment examines how students make sense of what they are learning. It values what they think and not just what they do, and allows for multiple opportunities to demonstrate their competence (Johnson, 1996).

For the evaluation process we also needed to consider the variety of learning styles (Reid, 1995) and multiple intelligences (Christison, 1998; Gardner, 1993) of our students. Architecture students, in particular, are very visual and tactile (we call them "3-D students"), and traditional assessment using quizzes and exams might not be the most suitable. A type of assessment that would make the students use all their language resources to create meaning was needed. Bearing this in mind, and considering the problems to be encountered with "not very motivated" students, we thought alternative assessment would be an indirect means of encouraging student motivation and participation in class.

Our new design thus included restructuring of objectives and changes in the methodology and evaluation system. Although we decided to keep the readings in the guides, we had to design different tasks (Carson, Taylor, & Fredella, 1997; Nunan, 1989) for our new objectives. This led to the creation of different kinds of teaching/learning materials, such as posters, audiocassettes, and videos. The course was restructured as described below.

Course Objectives

The main purpose of this course is to prepare students to use English to read and understand technical journals in their field, understand the aural discourse of native and nonnative speakers of English, take notes and summarize important information, write reports, and discuss topics in their field of study. We had to consider what our students would have to do to accomplish these goals. With that in mind, we established general mastery objectives and found it necessary to include aspects of each of the areas mentioned above in the design of our classroom tasks and assessment tools.

Language Objectives

For the language objectives, we wanted students to be able to integrate readings about a specific topic in order to prepare, organize, and present brief oral and written reports. They should also be able to understand minilectures presented by teachers, guest speakers, and their peers; take notes; make oral and written summaries on the information given; and discuss and support their opinions. We also considered it important that creative writing, such as fables, film, art reviews, and poems be developed to satisfy the humanistic and creative nature of our architectural group.

The form and functions of the English language are reviewed to satisfy perceived needs, which vary from course to course and individual to individual. However, these points are not stated as course objectives. Situated discourse (Jacoby, 1998) strategies are used to facilitate students' analysis and use of different pieces of discourse relevant to the architectural field.

Content Objectives

Content is the backbone of ESP courses. We were satisfied with most of the content we found in the reading guides because important aspects and topics of interest in the field were covered and a common thread ran throughout. However, because this course is offered yearly, articles needed to be updated constantly. Readings and audiovisual material are updated to reflect new trends in architecture and new architectural projects carried out by national and internationally acclaimed architects. For example, two new units have been added lately: Sustainable Design and Feng Shui, issues currently being discussed in the architectural field.

The content objectives for the course required students to be able to express their understanding of vocabulary, concepts, and main ideas related to the topics presented in class as well as to demonstrate their understanding of architectural concepts orally and in writing. This could be done through project work, such as the preparation and design of illustrated architectural dictionaries, newspapers, or magazines, or the design of brochures for architectural tours. Students should also demonstrate understanding of the architectural evaluative process through tasks, such as being on a panel to select the best proposal for an architectural project or evaluating buildings in Caracas.

Strategy Objectives

Although language and content are important aspects of ESP courses, critical thinking objectives should not be ignored. Flowerdew (1999) suggests that "regardless of syllabus type, ESP courses should also aim to develop critical thinking skills, especially if the courses are conducted for academic purposes within an academic setting" (p. 18). Critical thinking skills involve analysis, synthesis, and evaluation of information. In order to help students achieve this level of thinking, study strategy objectives are incorporated into the course. These objectives include relating new information to one's own conceptual framework (synthesizing and elaborating); making inferences and generalizations in listening and reading; analyzing genre in magazines, newspapers, and textbooks; and recognizing discourse patterns, such as definition, description, comparison and contrast, chronology, and classification

through linguistic and non-linguistic clues. Students also need to learn to understand and use graphic organizers, such as brain maps, charts, Venn diagrams, and time lines, and to evaluate the degree to which new information has been understood.

Working on these higher level processes leads to the incorporation of metacognitive strategies within the course framework. Metacognitive strategies involve knowing about what we know and knowing what strategies we use, and when and how we use them (Field, Anderson, & Carrell, 1997). Students use these strategies to plan, monitor, and evaluate their learning, reflecting on their progress through a process writing activity that includes guided composition and peer and self-evaluation.

Tasks, Materials, and Assessment

There is more to course design than just writing objectives. Objectives cannot encompass all the areas involved in a CBI course. Looking at the deep structure of our objectives, we can see implicit references to the four language skills as well as to functions, notions, competencies, and participatory processes. Although our objectives do not explicitly mention these aspects, the aspects materialize through the tasks performed in the classroom.

One of the most important features of our course is the variety of activities or tasks offered. We planned these with the objectives and our students in mind. If we wanted our students to come to class, they had to be motivated, and motivation would be generated only through relevant and participatory tasks accompanied by interesting, updated, and colorful supplementary material. As a result, our design is content as well as task based.

We brainstormed all the possible activities that we could use to accomplish the course objectives and encourage students to come to class. We put ourselves in the place of a content teacher and, at the same time, made use of all the filter-raising strategies we knew from our general English courses. Taking into consideration our students' natures, we decided that group work and communicative tasks (Nunan, 1989) would be appropriate activities. Supplementary audiovisual material was also a must for the students and ourselves, as audiovisual material would help us understand the content and be more comfortable with the students.

When designing our activities, we took into consideration the two aspects of ESP testing mentioned by Douglas (2000), authenticity of task and interaction between language knowledge and specific-purpose content knowledge. In order to use alternative assessment, we established different sets of criteria for the assessment of each task. For some, criteria were discussed and agreed upon beforehand, as in the oral presentations, building evaluation, and group and final projects. For others, such as creative writing, the criteria were discussed at the moment of establishing the task. We then designed assessment instruments for each evaluated task. A certain percentage of the final grade was allotted to class attendance and participation in class activities. At first this was as high as 20%, but we have since reduced it to 10%, as students have gotten into the habit of attending class.

The following activities have been successful with students and teachers alike.

Vocabulary Games

For each unit we make a list of architectural terms that students practice through vocabulary activities at the beginning of each class. These activities include teacher- and student-generated crossword puzzles, bingo, and memory cards with words and illustrations prepared by students. These activities are not evaluated.

Research Tasks: Postreading Extension Activity

During the first term, students are asked to do research and make 3–5 minute oral presentations on specific topics covered in their readings on architecture. For example, after reading about bricks, they are asked to research the ways people have used different bricklaying techniques through history. After reading about rhythm, they may be asked to bring pictures of buildings illustrating the different kinds of rhythm studied to class. The task is evaluated on the basis of questions posed and use of specialized vocabulary, pronunciation, and visual aids.

Architectural Design Project: Oral Presentations

This activity gives students the opportunity to describe the projects they are working on in their design course. They discuss the concept and specific elements of their designs and receive feedback from classmates, which helps them improve their design before presenting it to the course professor. This activity is well liked because it gives the students a chance to discuss something of real interest to them and their classmates. The students in the lower levels of their career can foresee what they will be doing in the near future. Use of appropriate vocabulary and organization are two of the criteria taken into consideration for assessment, with other elements being incorporated with students' help.

Process Writing

During the first two terms, students learn to write compositions through guided exercises on topics related to architecture. Within each topic, students are free to choose or emphasize the aspect they consider to be the most important. This always involves some library research. The process begins with free writing on the topic and moves through prewriting exercises and first and second drafts until the final version is produced. After the first and second drafts, peers edit each other's work using evaluation forms that correspond with the genre. Through this process, students learn the appropriate use of rhetorical functions such as description, comparison and contrast, hypothesis, and speculation. When students submit the final version, they must also hand in the prewriting exercises, drafts, and peer editing forms so that these can be evaluated along with the final version. Qualitative feedback is given throughout the process.

Class Preparation and Teaching

For this activity, students work in groups to select and prepare a class on one of the course topics. Students assume the role of graduate architects who have been invited to give a class to architecture students. They plan and prepare supporting materials for the presentation and handouts for the class. For example, a group that selects the life and work of Philip Johnson might bring visual materials about the architect and his work and a handout with information to be filled in during the oral presentation. The group might also provide material to introduce the class, such as a guessing

game with information about Philip Johnson's life, work, and style. When presenting the Guggenheim Museums, students brought jigsaw puzzles that class members used to put together all of the information they knew about the museums before the presentation began. This activity is teacher, self-, and peer evaluated on the integration of the following aspects: title; introduction (e.g., purpose, motivation); students' ability to summarize, integrate, and organize the material read; and presentation skills (e.g., eye contact, note reading, good use of visuals and supporting materials, presenter's ability to elicit a response from the audience). Language use, pronunciation, syntax, fluency, and vocabulary are also considered.

Note Taking

Students develop listening comprehension skills by attending to the presentations given by their peers and summarizing information. Their summaries may take the form of paragraphs, outlines, graphic organizers, or brain maps. We evaluate students on their ability to summarize the main ideas, state subordinate ideas, point out important and interesting details, raise questions and doubts, express personal opinions on the subject, and list new and/or difficult vocabulary items.

Reading About Architecture

Students read different types of architectural articles in class and do varied tasks. For example, students analyze the structure of editorials or review articles or ads (genre analysis) in order to create their own. These readings are also used to promote the use of graphic organizers, brain maps, time lines, and other summarizing methods. Different prereading techniques are used to stimulate students' prior knowledge, whereas postreading activities include discussion of the topic, review of the use of rhetorical patterns and cohesive ties, and analysis of compound words and phrases and the use of affixes (prefixes and suffixes). As students are not very fond of long texts, we use cooperative learning techniques, such as jigsaw readings and numbered heads (Kagan, 1992), to make the readings more approachable. Evaluation of these activities depends on the content of the readings and the linguistic aspects derived from each one.

Video Labs

We show videos on architects and their work and ask students to complete different oral and written tasks on each. The videos describe cities such as Chicago, New York, and Montreal, and buildings and houses made famous for their architectural styles and their architects. The videos also include interviews with famous architects, such as Frank Lloyd Wright, I. M. Pei, and Mies Van der Rohe.

Video-related worksheets have pre-, while-, and postviewing activities. Some previewing activities include brainstorming on the topic using photos and maps, and responding to questions to elicit background knowledge on the theme of the video. Other tasks include true-false activities in which we give students statements taken from the video and ask them to determine their validity, matching activities in which students connect buildings with architects or cities, and multiple choice questions. These are think-pair-share activities that allow the students to practice material by hearing, saying, and visualizing information that will be seen later on in the video. Some of the while-viewing activities involve checking the answers to the previewing tasks, as this encourages the students to use prediction strategies and pay attention to

the content of the video. Postviewing activities include discussion of the video, with controversial comments made by architects; comparison of the architecture seen with that seen in previous videos; and production of linear or graphic summaries and lists of important descriptive architectural terms.

Group Project Evaluation

Students are divided into three groups to select the winners of a competition among architects designing urban housing projects for people with specific needs. The students have to decide which of the plans is the best, based on established criteria. Evaluation takes into consideration students' capacity to design an instrument that uses these assessment criteria. This instrument, along with evaluation results and written comments on the whole process, is then graded by the teacher. Students' ability to present the results of their evaluations to other groups is also considered.

Final Projects

Students work in pairs or small groups to complete a written project and present it to the class. Students choose from one of the following:

- A-Z architectural illustrated dictionary: For each term, students provide a written definition, the equivalent word in Spanish, and an illustration.
- Architectural newspaper or magazine: Students produce an architecturally themed publication that includes all of the typical features and sections, such as letters to the editor, the social section, reviews, comics, ads, and editorials.
- Architectural tour brochure of some part of Venezuela: Students produce a brochure describing the site, its facilities, and its historic importance and relevant architectural aspects. Photographs and drawings are expected.
- Space—same function, different style: Students compare two or more spaces that fulfill the same function but have different architectural styles. The comparison must consider the content covered in the trimester. Pictures, illustrations, drawings, and plans are required.
- Building evaluation: Working in pairs, students select, visit, and evaluate a building in Caracas and then present their evaluation to the class. Students are expected to design their evaluation instrument.

We design assessment instruments that match the specific requirements of each type of project.

Journal Entries

These biweekly writings are personal reactions to texts, topics, discussions, films, and trips that follow journal writing guidelines (Casanave, 1993) and are of no specific length. The guidelines are given to the class and discussed at the beginning of the term. The purpose of this activity is for students to write about things that are important to them. Even though they start out writing only a few lines, they usually end up with a page or more. More importantly, students enjoy this activity because they know that the only evaluation criterion used is readability: The text must be understandable and convey a message, even when grammatical mistakes are made.

Impromptu Speeches

Students give a 1- or 2-minute impromptu speech on general topics of a humorous or serious nature that are agreed upon at the start of the term and selected at random from teacher-made cards. In the first class, students practice these speeches in groups before actually making them before the whole class. Another variation of this activity is asking students to write their own topics on a slip of paper. Content (determined by the speaker's ability to respond to the initial question), fluency, and pronunciation carry the most weight, followed by the use of appropriate vocabulary and grammar.

Creative Writing

This biweekly activity, which entails imaginative writing using different genres, is a bonus for students. Architects are free minds who love to visualize and create things, and this activity exploits this aspect of their nature. Ideas, many of which students contribute themselves, include writing a fable, describing and drawing an invention for their field, reviewing a film, describing and reviewing a painting, creating an architectural cartoon, and designing a display ad related to an architectural item, among others. We make linguistic corrections, and students participate in establishing the other criteria to be used for evaluation, based on the characteristics of each task.

Apart from the evaluations for the tasks described above, we also use exams, self-evaluation, portfolios, and contracts for evaluation of student progress.

Exams

On exams, students review the architectural vocabulary covered and apply the strategies they have practiced in their reading and writing tasks. Exams are integrative, with students having to apply what they have learned in the course to solve a problem and/or analyze building plans. They may also have to read an article and support or disagree with the writer's opinion. Although students do not consider the exams easy, they say they enjoy doing them because they are challenging and fun. At the same time, students know that the burden of the whole course does not depend on this grade. In the final trimester, exams are optional.

Self-Evaluation

At the end of each trimester students complete a self-evaluation form on which they assess their performance in the different class activities with a rating from 1 (deficient) to 4 (excellent). Based on this evaluation, they estimate their final grade.

Portfolios

Students keep a portfolio containing all their evaluated course materials, including journal entries; creative writing pieces; presentation handouts; teacher, peer, and self-evaluations; and contracts. They select those they consider to be the best expression of the assigned task.

Contracts

Perhaps the most interesting part of the evaluation scheme is the contract, whereby students are given the opportunity to choose the type of activities they would like to have assessed. The fact that the students complete the selected activity does not mean that they are awarded the total assigned grade, as the grade for the activity will be

based on the criteria established in the rubric designed to evaluate that activity. Other points related to the contract, for example, the week in which oral presentations are to be given and the number of activities to be done, are also negotiated. Students are given a 3-week period in which to make changes to their contract before the final contract is signed.

Methodology

In designing our course, we have taken into consideration our students' distinctiveness and diversity. Their multiple intelligences (Christison, 1998), variety of learning styles (Reid, 1995), and different learning strategies (Oxford, 1990) influence the range of tasks and types of assessment we use in the course. With this repertoire of activities, our classes can be planned in such a way that few are alike. There are, however, certain routines that we follow in our classes. In the first place, while waiting for all the students to arrive at the beginning of each class period, we have students' time.

Students' Time

During this period, we talk informally to each of the students, asking them about their studies, current events, and so forth. Then we start with a warmup that may be a cartoon, an ambiguous headline, a joke, a funny picture, a game, or any activity that is fun and good for English teaching. There are also competitions in which the winner gets candy, cookies, or stickers (which, surprisingly, they love). Other games for unit vocabulary practice are also done during this period. None of these activities is evaluated. Before ending this period, we hand back assignments, and students have the opportunity to make comments. Sometimes this time is used to check on linguistic problems.

Preparation

Regardless of the activity planned for the day, there is always a preparation period when students get involved in the topic. Prereading, previewing, and prewriting activities are done in this part of the class. We may ask questions to refresh students' memories on the theme if begun in previous classes, or brainstorm about a word, picture, or quote. Other aids, such as photographs, books, brochures, pictures, posters, and teacher-made resources (in general, all kinds of realia), are also used. For example, in a class about rhythm in architecture, students, after brainstorming on the word *rhythm*, listen to songs with different rhythms and identify the elements that produce the rhythm in each. We then ask them to discuss, in pairs, the concept of rhythm in architecture and to write a paragraph summarizing their ideas.

Presentation

In this section we introduce new material mainly through different kinds of readings or videos. This is where while-reading or while-viewing activities are used. If the presentation is done through a reading, students usually work in pairs or in groups. We promote student-student interaction and take the role of facilitators ourselves. For example, when studying rhythm, students formed groups and each group received a section of the text to read, discuss, and summarize using a brain map.

Then, using the five brain maps generated by the students, we put together a class brain map about rhythm in architecture.

Practice

In this part of the class, students use the postreading, postviewing, or postwriting activities to show what they have learned or to present their doubts on the topic. Students discuss the topic, ask each other questions, compare ideas, and apply what they have learned to new situations. For example, in the class about rhythm, the students were given architectural magazines from which to select a building and explain the kind of rhythm used by the architect who designed it. Guest speakers may also be invited to talk about different themes, and this gives students opportunities to increase their knowledge and practice using the English language.

Closure

To end each class, we summarize the main points and assign homework, or remind students of future activities.

This is the framework within which we give ourselves the freedom to be creative. Classes vary from one to the next and there is variety within the same class as well. Students have no time to be bored because as soon as one activity is completed, a new one begins. Each class is an adventure for students and teachers, with the greatest adventure being the planning of the class. It is a challenge that we face with a smile.

Not everything is perfect. Sometimes, when we think we are best prepared, the activity does not work. This may be caused by different factors: We had fewer students than planned and the group activity could not be done, or the recording could not be heard by everybody, or the activity was too difficult or too easy for the students. Sometimes we feel let down and frustrated, especially when we have put a lot of time and effort into planning and creating the materials (as in most cases). But this is what teaching is all about. When this happens, we sit down and compare what happened in the other classes, analyze, and look for alternatives to put into practice in similar situations. We also adapt our materials using the feedback we have obtained.

◆ DISTINGUISHING FEATURES

After analyzing the description of the elements of our architectural courses, we believe that their most relevant characteristics are:

- the repertoire of activities, most of which integrate the use of the four skills, and the manner in which these promote critical thinking skills
- the time devoted in each class to getting to know the students and motivating them
- the use of alternative assessment, including teacher, self-, and peer evaluation, and the use of contracts that take into consideration the individual's cognitive and learning styles
- the collection of assessment instruments designed for each activity, with their corresponding criteria for evaluation, as well as our records of

students' grades, which allow for a more comprehensive and objective assessment of students' performance

- the students' participation in the selection of activities and materials to give them the ability to control, pace, and have ownership over their learning process
- the course design, which encompasses all aspects of the learning process by appealing to the diversity and distinctiveness of the students found in each class
- the use of situated discourse to deal with the form and functions of the language used in the architectural field

◆ PRACTICAL IDEAS

The wide range of activities and the methods used for evaluating them can be adapted and used in any ESP course. We have adapted and used them in our other ESP courses, English for Science and Technology (EST) and English for Computer Science. To adapt this program to other contexts, a teacher needs to follow five main procedures.

Collect Discourse Data Corresponding to the Content to be Taught

Data can be obtained from specialist magazines, brochures, ads, and other sources. Look for the most salient features and think of creative ways in which these can be taught and then used by students in meaningful ways. For example, computer engineering students describe the design of their own computers using compound noun phrases; 1st-year science and technology students, exposed to varied discourse patterns in their reading courses, describe phenomena of interest to them, such as the brewing of beer, in which these rhetorical functions are reflected.

Consider the Students' Cognitive and Personal Learning Styles and the Distinct Features of the Discipline When Designing Tasks

Build on students' strengths and preferences by designing tasks that use those skills. For example, the analytical nature of science students may lead to the creation of activities that involve analytical processes and deductions. Computer engineering students may be asked to design a computer based on the special needs of a client, and science and technology students may be asked to solve a mystery based on the evidence provided in a documentary film. Science fiction novels can also be integrated into EST courses as additional reading.

Place Special Emphasis on Developing Critical Thinking Skills

Use varied materials to encourage students to apply critical thinking skills in new situations. For example, science and technology students can be encouraged to read from a variety of different sources through a reading log activity or to visit Web sites through an on-line Web site evaluation activity. They summarize and evaluate the information they have found, determining whether the information is fact, hypothesis, or the writer's opinion and whether it contradicts or confirms the ideas they

enthusiastically held on the topic. They then outline the manner in which the new information has broadened their view and give their opinion of its validity.

involve Students in Course Design

Students can contribute to all aspects of the course design process by selecting activities, selecting and developing materials, and choosing assessment procedures.

Engage in an Ongoing Needs Analysis

This is essential to any ESP/EAP course because the language needs and interests of students differ in every course. In addition, instructors need to continually update their knowledge of the content area or subject matter they are teaching.

◆ CONCLUSION

At this point, our architecture students come to class regularly; the English class is a topic of out-of-class conversation among architecture students; and we have become fans of architectural topics, buying journals and magazines on the subject. Every trip abroad is an opportunity to visit places and enjoy them with an architectural eye. It is also an opportunity to take pictures and get videos, brochures, and other material that can be used in our courses.

When we started to design this course from the information we received, we could foretell that the first problem would lie in the evaluation system. If students knew the days for their exams and quizzes and that these were based on the readings compiled in a reading guide, they would not feel obliged to come to class except on testing days. On the other hand, forcing students to come to class just for the sake of exams was not our idea of an ESP course. At the same time, we thought that a CBI approach with varied, motivating and relevant activities, opportunities to practice real language, and attractive audiovisual supporting material was fundamental to promoting students' attendance. Alternative assessment was, without doubt, our route to informing our teaching. Through continuous feedback from the students we have been able to incorporate content, activities, and materials that satisfy their needs. We have involved them in their own assessment and have even bargained over schedules to satisfy students' personal and professional needs with regard to their other architecture courses. By doing this, we have accomplished strategy analysis (Allwright, 1982) and means analysis (Holliday & Cooke, 1982) and have also taken into consideration "the wants or subjective needs of the learner" (Hutchinson & Waters, 1987, p. 56). We agree with Bowers (as cited in Jordan, 1997) that "it is clearly important to leave room in a learning programme for the learner's own wishes regarding both goals and processes" (p. 26).

The fact that our students have varying English language proficiency and levels of architectural knowledge has been an asset in our courses in the process of constructing learning. Students and teachers learn from each other. We learn about our strengths and weaknesses and how to deal with them individually and collaboratively.

We agree with Eskey (1997) that grammar is one of the aspects more problematic to teach in a content-based course, especially, as in our case, in an EFL context. However, we have found that students can master specific grammatical

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structures if they are conscious of their use in a given kind of discourse. We have seen from students' journal entries that students can improve their grammar in their free writing by learning to write following the grammar of specific discourse types. Regarding oral production, we have noticed great improvements in fluency, but accuracy is still one of our challenges. Another positive consequence of the changes we made in the 2nd-year courses is that the professors in charge of the 1st-year courses have reoriented their syllabuses in order to better prepare the students for our courses.

What we have really learned from planning and teaching this course is that being an ESP teacher in an academic context takes lots of flexibility, creativity, and commitment. Our final remark is that even though ESP/EAP courses imply a great deal of work, we would not change them for a general English course because we feel that teaching content-based ESP courses is a means to professional and personal growth.

◆ CONTRIBUTORS

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