

## What Are Some Considerations for Teacher Training in Content-Based Instruction?

PETER MASTER

California State University, Fresno

As content-based instruction (CBI) increasingly replaces language-based syllabi (e.g., grammatical, notional/functional) in the teaching of English as a second language (ESL), the question of how to train teachers to implement this form of instruction effectively gains importance. CBI requires an adjustment on the part of the ESL teacher, who may be intimidated by the prospect of having to teach subject matter with which he or she may not be familiar. This fear of subject matter is well known to English for specific purposes (ESP) practitioners, who have long had to deal with the same issue, but for ESL it raises questions about teacher training for new teachers and teacher development for those who have been teaching ESL for some time.

To the content-area classroom teacher (henceforth, the content instructor), the term *content-based instruction* may seem redundant for, after all, on what else would instruction be based? In fact, this term derives from the term *content-based language instruction*, originally within the realm of ESP, but now more broadly linked to ESL instruction. Its primary purpose is to differentiate the more traditional language-based language instruction, that is, the study of a language itself as subject matter (with its parts of speech and verb tenses and sentence structures) from language instruction that uses content as a vehicle for achieving language mastery.

The melding of subject matter and language—two conventionally distinct areas of instruction with different instructor-training techniques—is no longer seen exclusively as an ESL methodology. The reason is that, especially in the United States, large numbers of non-English proficient (NEP) or limited English proficient (LEP) students have entered the mainstream curriculum. Thus, content instructors, who could once presuppose the students' mastery of the language of instruction, are now increasingly faced with students who have difficulty understanding their lectures, the textbooks, and

the mix of formal and informal language with which they have enlivened their classroom presentations over the years. As they gain experience with this new student population, these mainstream instructors are realizing that many of their "poor" students are not poor in the sense that native speakers might be so labeled but poor solely in their mastery of the language of instruction. In other words, content instructors have had to become aware that language is fundamental to their students' grasping of content, just as language instructors have had to realize that students need the ability to perform and succeed in subject areas, not just to learn about the language.

Although content-based instruction is the foundation of language across the curriculum, immersion education and ESP, the present discussion is limited to teacher training issues in theme-based, sheltered, and adjunct language instruction as these are more directly relevant to the ESL curriculum.

### **Theme-Based Language Instruction**

Theme-based language instruction is the codification of a practice that many experienced ESL/EFL teachers have come to spontaneously and independently. Even in the heyday of the grammatical syllabus, a class could not do grammar all the time. Reading was the most logical alternative, and what to read was either selected randomly by the teacher or selected with input from the students. Reading (and writing) in depth, that is, using several texts within a single theme, seemed preferable to reading and writing on many different topics (see, for example, Raimes, 1983) because it allowed the necessary schemata for that theme to be developed and topic-specific vocabulary to be recycled and enlarged upon. This led to the idea that all ESL instruction could be based on themes, which would not only allow the development of all language skills and subskills (e.g., reading, listening, grammar, oral skills) simultaneously but also foster the higher order critical thinking skills such as separating fact from opinion. Themes can be either random selections, chosen and ordered with student input (e.g., education, nuclear energy, the drug problem) or subsets of a larger unifying theme (e.g., product development, advertising strategies, and consumer behavior as a subset of marketing).

Theme-based instruction requires teacher training in curriculum and materials development, particularly in regard to the conducting of needs assessments to insure that the selection of themes is based on students' interests. This requires much work on the part of the ESL teacher, but as publishers become aware of this type of instruction, more commercial theme-based texts are becoming available. However, teachers need to exercise great care in selecting these texts

and the themes contained therein, for they must have the support of the students for the themes chosen and not blindly rely on those selected by a publisher or author.

### **Sheltered Content Instruction**

Like all content-based language instruction, sheltered content instruction is addressed to nonnative speakers. However, it is taught by a content instructor, not an ESL teacher. Students are "sheltered" from their native English-speaking peers, almost always in a high school, community college, or university setting, and given instruction in a specific subject such as biology, history, and so forth. The idea is that such a setting provides a low-anxiety environment for these students, who would otherwise be competing with native speakers. (See the article by Glaudini-Rosen in this volume for a more in-depth discussion of sheltered instructional strategies.)

Sheltered content instruction requires considerable teacher development. In addition to knowing their subjects well, being successful teachers in their regular content classes, and being able to choose texts that are accessible to students because of their clarity or organization, sheltered content teachers must learn how to adjust their speech in the classroom to compensate for their students' developing listening skills. For this reason, sheltered content instructors are usually experienced classroom teachers who have come to recognize the kinds of problems that LEP students have had in their regular content classes. They often display an extraordinary humanistic commitment to helping these students, coupled with an uneasy recognition that their hitherto successful teaching techniques are not sufficient for LEP students. Since the means to develop the necessary teacher competencies for sheltered instruction are the same as those required for the content instructor in the adjunct model, these will be discussed in greater detail in the next section.

### **Adjunct Language Instruction**

One of the most successful means of implementing content-based instruction is through adjunct language instruction. In this model, a language teacher works in tandem with a content instructor. The language teacher usually attends the content class, which guides the syllabus for instruction in the language class. Concomitantly, the language class provides the necessary language skills for students to be able to perform successfully in the content class. This naturally requires close cooperation between the content and the language instructors.

For historical reasons, content has always seemed more important than language instruction. It is thus generally thought that the language instructor must be subordinate to the content instructor in

the adjunct relationship. This attitude is described in Johns and Dudley-Evans (cited in Swales, 1985) as "that suspicion and even hostility which language teachers often report encountering when attempting to set up some sort of cooperation with subject teachers" (p. 152). Experience with the model is beginning to show, however, that it is the content instructors who usually have to make the larger adjustment, usually by altering their lecture style, textbook selection, test formats, written assignments, and expectations, all within the limits of the course since such adjustments should not result in a watered-down version of the original syllabus.

While language instructors may initially be intimidated by having to deal with an area of knowledge they are not familiar with, they very quickly see that their language teaching experience serves them well in helping their students deal with new subject matter. No one expects them to be experts in the content area, and they can ask the students or the content instructors if necessary if they find they do not understand something. In fact, the language teachers usually enjoy learning the new material. The content instructors, on the other hand, often come to the adjunct model with the feeling that their teaching methods are somehow inadequate. Their tried-and-true techniques do not work with the LEP students in their classes, but simply failing these students is not an acceptable solution. Their adjustment requires a reevaluation of their entire method of teaching, which is usually very teacher centered. Once they realize how to implement more student-centered teaching practices—that is, by becoming more culturally sensitive, avoiding the use of colloquial idioms (e.g., the following samples from a biology lecture: *chew the living heck out of you, mess around with, lickety-split*), using the blackboard more frequently, encouraging more language use in the classroom through hands-on activities and group work, and sometimes even incorporating ESL techniques such as journal writing and role play into their own classrooms—they usually come to sincerely appreciate the teaching strategies of the language teachers they work with. They often find, once the initial hurdles are crossed, that they become better teachers as a result (Aguirre, Brinton, Master, Phillips, Steidel, & Sutherland, 1991; Cummings, 1991; Wesche & Ready, 1985).

One of the first issues to be dealt with in adjunct language instruction is thus the relationship between the language instructor and the content instructor. The best way to improve the relationship is to communicate, and communication is best fostered through preservice and in-service training. A workshop at Cañada College in Redwood City, CA serves as a good example of such training. It involved a preprogram discussion of potential problems that instructors could foresee—with ESL teachers and content instructors meeting separately—followed by an extended role play of a coordination meeting (cf. Snow & Brinton, 1990) in which both content and language

instructors were asked to take on roles reflecting the various situations that might arise in an adjunct relationship (e.g., students giving more attention to the content class than to the language class because they are doing poorly on exams, content teachers being unwilling to adjust their original syllabus for the LEP students, language teachers receiving insufficient cooperation from content instructors, the administration wanting proof of effectiveness to justify funding of such a class).

The next phase of the preservice workshop required a content instructor to give a sample lecture in a content area. Prior to the lecture, the instructor left the room while the remaining participants discussed issues such as frequency of blackboard use, using group work for content-based tasks, using hands-on experiences and visuals, defining terms, and relating material to the culture and experience of the students, concerns discussed in Crandall (1987). During the lecture, the participants were asked to note potential student difficulties in two columns, one devoted to content matters (terms, explanations, definitions, etc.), the other to language matters (rate of speech, idiomatic phrases, cultural metaphors, grammatical structures, etc.). After the lecture, the participants discussed the problems that students were likely to have with the material and the workshop leaders led a discussion on language issues in an adjunct program, including study skills, grammar, reading/writing, and listening/speaking.

In the next phase, the group broke into specific content areas (e.g., social sciences and western civilization, mathematics, science). The content instructors met with their ESL counterparts to discuss instruction. In the social sciences and western civilization content area, King, Fagan, Bratt, and Baer (1987) suggest, for example, that content instructors use both oral and written activities in the content class, relate new material to the lives of the students, break down content information into manageable chunks, and make frequent checks for comprehension. Language instructors in the same content area should focus on vocabulary, use social science textbooks with a lower reading level in the language component, teach map and chart reading, and devote time to preparing oral and written reports in class.

In the mathematics content area, Dale and Cuevas (1987) suggest that content instructors communicate—not just present—mathematical concepts, provide extensive hands-on experiences to allow native English-speaking and ESL students to interact with each other and the teacher, provide activities based on students' real-life experiences, and allow students to develop their own word problems. ESL instructors in the same content area should teach math vocabulary (e.g., *column, rational, equal*), syntax (e.g., prepositions, comparisons, the passive voice, logical connectors) and semantics (e.g., the referents of variables); teach up-and-down as well as left-to-right eye movements for reading mathematics texts; and provide word problems with too little, too much, and just enough information, which students must identify and correct.

In the science content area, Kessler and Quinn (1987) suggest that content instructors present new terms in science contexts rather than isolated lists and provide numerous hands-on activities. They also suggest that correction be focused on accuracy and interpretation of truth, not accuracy of language. ESL instructors in the same content area should teach vocabulary more than morphology and syntax and be willing to handle basic science concepts and the processes of scientific inquiry.

In the final phase of the preservice workshop, the content instructors convened separately from the ESL instructors so that each group could discuss what they had learned. Then the entire group met together to consolidate their experience (Brennan, 1986).

The purpose of the preprogram workshop was to acquaint future adjunct language instructors with some of the issues they were likely to encounter in their content-based classes. After the workshop, meetings at Cañada College were held every two to four weeks. In this way, adjustments could be made as the program evolved. This helped instructors to decide, for example, whether the number of hours in each segment (content and ESL) were sufficiently balanced for the proficiency level of the student population, whether more counseling was required to boost motivation, and whether the chosen materials were working effectively. More importantly, it provided a forum for the ESL and content instructors to voice their concerns and maintain good communications with each other.

### Conclusion

Content-based instruction represents a shift away from "many existing methods, in which language skills are taught in isolation from substantive content" (Snow, Met, & Genesee, 1989, p. 201). The sheltered model requires that content teachers become more familiar with the kinds of language problems that LEP students have and adjust their classroom language and techniques to better meet the needs of all students in the classroom. Similarly, in theme-based instruction, ESL instructors infuse the language class with interesting, relevant topics or incorporate content areas from their students' other classes into the ESL curriculum. This job is more equitably shared in the adjunct model. Within this model the two teachers concerned can retain their strengths in their areas of expertise, whether language or content, but they must make adjustments in their teaching so that they move towards the area of expertise of their coteachers. Collaboration must take place in some form or another for content-based adjunct instruction to succeed. If the funding is not available for extensive preprogram and in-program workshops such as the one described above, collaboration has to take place on the teachers' own time. Without it, one can expect only the rancor that stems from

stereotypical notions of what and who is more important, and this does nothing to serve our students. ■

### Teacher Reference Books on CBI

Brinton, D., Snow, M. & Wesche, M. B. (1989). *Content-Based Second Language Instruction*. New York: Newbury House.

Cantoni-Harvey, G. 1987. *Content-Area Language Instruction*. Reading, MA: Addison-Wesley.

Crandall, J. (1987). *ESL Through Content-Area Instruction*. Englewood Cliffs, NJ: Prentice Hall Regents.

Mohan, B. A. (1986). *Language and Content*. Reading, MA: Addison Wesley.

Peitzman, F., & Gadda, G. (Eds.). (1991). *With different eyes: Insights into teaching language minority students across the disciplines*. Los Angeles: California Academic Partnership Program.

Richard-Amato, P. & Snow, M. A. (In press). *The Multicultural Classroom: Readings for Content-Area Teachers*. White Plains, NY: Longman.

### References

Aguirre, A., Brinton, D., Master, P., Phillips, J., Steidel, J., & Sutherland, K. (1991, April). *Linking content and ESL: An experimental program*. Paper presented at the meeting of California Teachers of English to Speakers of Other Languages, Santa Clara, CA.

Brennan, M. (1986). ESP and content courses: Easy coordination techniques. In P. W. Peterson (Ed.), *ESP in practice: Models and challenges for teachers* (pp. 119-121). Washington, DC: USIA.

Brinton, D.M., Snow, M.A., & Wesche, M.B. (1989). *Content-based second language instruction*. New York: Newbury House.

Crandall, J. (Ed.). (1987). *ESL through content-area instruction*. Englewood Cliffs, NJ: Prentice Hall Regents.

Cummings, S. (1991, March). *Undergraduate faculty react to an adjunct model*. Paper presented at the meeting of Teachers of English to Speakers of Other Languages, New York, NY.

Dale, T.C., & Cuevas, G.J. (1987). Integrating language and mathematics learning. In J. Crandall (Ed.), *ESL through content-area instruction* (pp. 9-54). Englewood Cliffs, NJ: Prentice Hall Regents.

Johns, F., & Dudley-Evans, A. (1978). Team-teaching of subject-specific English to overseas postgraduate students. Cited in J. Swales. (1985). *Episodes in ESP* (pp. 140-153). Oxford: Pergamon Press.

Kessler, C., & Quinn, M. E. (1987). ESL and science learning. In J. Crandall (Ed.), *ESL through content-area instruction* (pp. 55-88). Englewood Cliffs, NJ: Prentice Hall Regents.

King, M., Fagan, B., Bratt, T., & Baer, R. (1987). ESL and social studies instruction. In J. Crandall (Ed.), *ESL through content-area instruction* (pp. 89-120). Englewood Cliffs, NJ: Prentice Hall Regents.

Raimes, A. (1983). *Techniques in teaching writing*. New York: Oxford University Press.

Snow, M.A., & Brinton, D. M. (1990, March). *Practical considerations in the design and implementation of content based programs*. Paper presented at the meeting of California Teachers of English to Speakers of Other Languages, Los Angeles.

Snow, M.A., Met, M., & Genesee, F. (1989). A conceptual framework for the integration of language and content in second/foreign language instruction. *TESOL Quarterly*, 23(2): 201-217.

Wesche, M., & Ready, D. (1985). Foreigner talk in the university classroom. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 89-114). New York: Newbury House.