

# A Content-Based-Instruction Textbook for a Phonology Seminar

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**Abstract.** This report summarizes work on a textbook written for a phonology seminar at KUIS. I first describe the general educational “problem” that the context-based instruction (= CBI) approach was meant to solve. Then I introduce the general nature of a CBI pedagogical strategy, and then I discuss how a textbook can implement the CBI principles and illustrate these points with specific examples.

## 1. Introduction

In a sense, this paper reviews the strategies that I have adopted to deal with changes in the body of students that are attending my linguistics classes in the years before and after I began teaching here in Japan. Before I moved to Japan in 1993, I had been teaching mostly the same English and Linguistics courses that I would teach in Japan. In the decade and a half that I taught in American universities, I had developed teaching strategies which were successful enough for the American and international under-graduates who enrolled in my classes. For the most part, my teaching techniques were traditional in that the class was largely teacher-fronted: I would lecture on particular topics and assign readings and homework to assure that my students had understood the points that I had made in class.

When I moved to Japan, the students in my classes were mostly recent Japanese high-school graduates, having their typical abilities and attitudes. With horrifying

rapidness, what used to be my favorite courses degenerated into exercises in failed communication and became a nightmare that I dreaded to teach. The methods that I had used in American universities simply did not work well in this Japanese university environment.

As an attempt to overcome this unpleasant situation, I decided to switch to a content-based instruction (= CBI) approach first in my Introduction to English Linguistics class, then in my English Phonology class, and lastly and presently in my Phonology Seminar. I found the CBI strategy to be successful, although extremely time-consuming. For me, the best part of the CBI approach was that I begin to enjoy teaching my linguistics classes again – and so, it seemed, did most of my students.

## **2. Content-Based Instruction (CBI)**

I have said that I have adopted a content based instruction (= CBI) approach to teaching my linguistics classes. However, CBI is not so much a definable pedagogical program as it is an attitude about education (Stryker & Leaver 1997a: 5-15). Content-based educational strategies are a form of communicative language teaching that seek to combine the teaching of an academic subject with pedagogical strategies found useful in second-language learning. CBI strategies seem infinite in variety (see Brinton et al. 1989; Brinton and Master 1997). But it is likely that most instructors using a CBI curriculum would accept these three pedagogical principles (Stryker & Leaver 1997a: 5-11):

- (1) Language teaching is based on a subject-matter core
- (2) Authentic language and texts are used

(3) Instruction is appropriate to the needs of specific groups of students

Below I'll concentrate on the first and last point and address the second point mainly in terms of how the textbook is structured and how its use, in turn, structures the class.

### 3. Language teaching

As for the first point, the phonology-seminar textbook and its utilization in class are intended to help develop the students' English language skills. For one thing, the textbook is ideally read BEFORE class. When I first began teaching in Japan, students complained that it was impossible for them to both listen to lectures and write notes at the same time, so I now tell my linguistics classes to study the textbook before class so that they can use the lecture as English listening practice. In effect, the textbook is meant to become an extended pre-listening exercise. To resort to pedagogical jargon, pre-reading provides students with schema — the relevant language and content information they need to understand the lecture. Ideally, providing the students with the necessary schema should help them develop “coping strategies” for understanding spoken English in other contexts (Stryker & Leaver 1997a: 5-11).

And much to my delight, my students now generally feel the course helps their English listening abilities. In her final class evaluation, one student answered the question about what advice she had for her *kōhai* by writing: “Just don't worried about Bruce's speaking English. It will really become easy by end of class. And I think it will be great chance to listening English” (A.M.)<sup>1</sup>

I have also decided — with misgivings — to make the lecture and the textbook as similar as possibly, as is common in sheltered classes ((Brinton et al. 1989: 16).

The result has been that — even when students are confused by what I say in class — they can figure things out AFTER class by (re-)reading the textbook. In their written class evaluations, a number of students explicitly said this is why they liked the text.

A third point related to language education is that the textbook does NOT cover the subject material in greater depth, does NOT discuss material that is not included in lectures, and does NOT use examples different from those in the lectures. These are likely the reasons that the text was said to be “good,” “useful,” “easy to understand,” a “great friend” and such by most of my students. The textbook provides a sheltered environment for students by controlling the amount of content knowledge students have to deal with.

In sum, the CBI approach as I have employed it sees the textbook as a tool to be used before the lecture to help the students understand the upcoming English lecture in a content area and to be used after the class to review and master what is presented in lectures. The textbook is as close as possible to the lecture in form and wording. Each of these points relates to how students come to grips with the content of the class, but there is another side. A CBI approach localizes (Principle 3 from above) the information in such a way that it is intelligible to the specific students being taught. In my case, this means that the content information is presented in a way that the students find possible to understand. I'll return to this point again.

#### **4. Class structure**

In my CBI-inspired linguistics courses, the textbook becomes the most important factor in determining in-class structure. The reason that the textbook

deeply influences in-class structure is that I have decided that each important point made in the lecture should be accompanied by an exercise which requires students to demonstrate understanding of the concept involved. This decision has forced me to convert my textbook into what is sometimes called a “course book,” a textbook in which exposition is accompanied a heavy dose of student exercises. The exercises are normally NOT meant to be challenging, and in evaluations many students said they liked this. Most exercises are simply intended to help the students understand the main point being explained and contain no tricks and require no imaginative jumps. A typical example would be the following which is drawn from a CBI based textbook I prepared for the Introduction to English Linguistics course; the example illustrates how the new concept of consonant clusters at the beginning and end of syllables is followed by a student exercise demonstrating understanding of the concept:

#### (4) Example of a **Mini-lecture** and **Subsequent Exercise**

English permits relatively complex consonant clusters to appear at the beginning and end of syllables. Some one-syllable words may have the basic CV structure, as in *no* or *he*, but there are many more complex possibilities. The beginning of syllables may be made up of one-, two-, or even three-consonant clusters. For instance, the beginning of the one-syllable word *sprint* contains a sequence of three consonants (i.e., [spr-]).

**Exercise 3-23:** Give examples of one-syllable English words which begin with the stated number of consonants. Don't be fooled by English spelling. Try to give original examples.

- a. C-
- b. CC-
- c. CCC-

Because each new point is followed by an exercise, it means that the class is broken into a series of mini-lectures, each followed by an exercise in the textbook,

which students are then given some class time to work on. I circulate around the class during these times to help students who are struggling. One effect of organizing class in this way is that the sequencing of topics in the class is necessarily the same as that adopted in the textbook. This is one way in which the textbook determined how class time was structured.

The second way that the textbook determines in-class structuring is that I begin each class by reviewing the main points covered in the previous class by going over the homework solutions. Like review drills in a language class, I pick individuals to write their answers to each exercise on the board. This clearly has a motivating effect on the students. One student advised his *kōhai* to

do homework each class time. It is very important in this class. Homework will be your review and homework will be part of the [next] class. I think I learned a lot of thing from my homework exercises. (H.T.)

Another explicitly commented that writing answers on the blackboard improved their attitudes:

The class work style which teacher let us write on the blackboard the answers for the homework was, I think, ...good ... and make[s] the student's attitude positive. (T.S.)

In sum, the CBI style textbook “takes over” my linguistics course in much the same way a good foreign language textbook determines the structure of a language class. First, the text and exercises determine the sequencing of topics.

And the regular repetition of a mini-lecture followed by doing an “understanding exercise” determines how class time is spent. Overall, this approach requires the students to spend more time doing homework than they are used to — or want to, but the students feel the homework exercises are helpful for mastering the content concepts. Secondly, like foreign-language review drills, reviewing by going over the solutions to the exercises in the following class seems effective. The reasons are complex. One important factor, I feel, is that the answer sessions are kept low-key and non-confrontational. I ask the students to first compare their solutions in small groups (Shaw 1997: 275-77), where they can help each other. I choose students whose answers are right or nearly so. I coach students so that their answer is as good as they can make it. I do not select students who have not prepared or who have misunderstood the exercise. In brief, I try to focus on the student’s successes not their errors (Shaw 1997: 279-80). And of course, giving exercises that they will write on the board motivates students to do the homework, if for no other reason than that they look good before their friends. Reviewing homework answers on the board in front of the class is, I suspect, the single most important reason why so many of my students say the class is “fun”; they like the “activeness” of the class, and they have the feeling that the class is “their’s.” This technique also cuts down on the amount of teacher-dominated class time (Shaw 1997: 281) and promotes student participation (Short 1993: 629). By increasing “redundancy and exemplification,” this strategy “accommodates” to the special “needs” of the students trying to master the content of a linguistics class (Brinton et al. 1989: 18).

## 5. Localizing information

The points I make in this section relate mainly to the third CBI principle mentioned earlier: making instruction appropriate to the needs of specific groups of students. I begin with some of techniques the textbook uses to shelter my students, many of whom are in their first or second year at the university.

When listening to a English-language lecture, probably the main problem intermediate-level non-native students have is figuring out what is most important in the flow of words. The CBI solution is to highlight the important points. The linguistics textbook employs three attention-directing techniques – all examples of “explicit graphic organizers and study guides” that Brinton et al. (1989: 20) note are often used in CBI sheltered classes. First, key concepts are graphically set off from “ordinary” text by being put in bold face. Second, all key concepts are defined and followed by illustrative examples. I put considerable effort into making the definitions clear and as free of jargon as possible and into making the examples plausible and easy to grasp. The textbook also adopts the (i) space-wasting but (ii) student and teacher-friendly “chapter glossary.” Each chapter concludes with a glossary including all the key concepts in the chapter along with short, clear definitions from the body of the chapter.

### (5) Examples of **glossary entries**

**Devoicing** is a type of voicing assimilation in which a normally voiced sound becomes unvoiced under the influence of a voiceless neighboring sound. See sonorant devoicing and vowel devoicing.

Distinctive sound differences are those that are capable of distinguishing the meaning of words. E.g., voicing is distinctive in English, contrasting the bilabial stop of **bat** from the bilabial stop of *pat*.

Chapter glossaries make it easy for the instructors to devise such things as multiple-choice tests covering a unit’s key vocabulary, and they also make it relatively easy for students to determine exactly what they need to concentrate on when preparing for those tests.

However, the most important way the textbook localizes the material is by simplifying the language used and eliminating linguistic jargon as much as possible. For non-advanced –level students, the CBI principle of using authentic materials surely conflicts with the principle requiring that the material be appropriate to the student needs. Beginning Japanese college students cannot read standard college introductions to technical subjects, at least not at the speed my syllabus demands. To make the material accessible, I have to rewrite the text in simpler, clearer fashion (Brinton et al. 1989: 16). I’ll mention two main changes.

Compared to earlier versions of the textbook, much effort is spent making the vocabulary simpler and more readily understandable by students. A convenient example is the vocabulary used in exercises. For instance, in a review exercise to practice distinguishing English vowels, before I’d choose any words that came to my mind. The words sometimes had more than one vowel, contained “tricky” consonants like [ʒ] and/or had consonant clusters which are hard for learners to master (e.g. [fl] or [tw] or [tr]).

(6) Example of “old” vowel transcription exercise

**Exercise 2-6:** Transcribe the words below using the phonetic symbols introduced in this chapter. Enclose transcription inside of square brackets “[...]”. Try to answer without checking a dictionary before you answer.

(a) correct	(b) cheese	(c) raw
(d) measure	(e) woodshed	(f) bookshelf
(g) proud	(h) fligh	(i) throat
(j) truth	(k) twist	(l) cram
(m) shout	(n) coins	(o) kids

In the revised textbook, the words used as examples are fewer, simpler, shorter, and more focused on main point of the exercise — eliminating words containing “difficult” consonants or consonant sequences.

(7) Example of **revised** vowel transcription exercise

**Exercise 2-14:** Transcribe (= write using phonetic symbols) the following words. Put transcriptions inside square brackets. It's okay to check your dictionary but try to guess the right answer first.

- |                  |          |           |
|------------------|----------|-----------|
| (a) crumb [krem] | (e) tape | (i) meet  |
| (b) pass         | (f) hit  | (j) short |
| (c) get          | (g) pull | (k) bone  |
| (d) view         | (h) body | (l) leave |

In addition, words are mostly selected from sources like the list of “Essential Vocabulary” given at the end of *The Kenkyūsha Japanese-English Learner's Dictionary* (1992: 1115-1121) in an attempt limit the words to ones that the students are most likely to already know, following the CBI maxim that teaching should build on learners' previous experiences (Brinton et al. 1989:3).

Much more difficult is simplifying the text language as a whole to a level that young college students can master. I am not trying to create a “graded reader”; rather I want a text that describes content in the most straight-forward way possible. This example is from an earlier version of my *Introduction to English Linguistics* textbook, a text which, I believe, is itself considerably less difficult than standard introductions:

(8) Example of “old” text beginning the book

**Linguistics** can be defined as the scientific study of language. But this leaves us with the perplexing question of what language is. Defining *language* is very difficult, for it is probably the case that all living creatures have a ‘language’ in the sense of possessing a communication system. All living things seem to **communicate**: one individual (a sender) can transmit information to a second (a receiver).

We return to the problem of what distinguishes ‘simple’ communication systems from extremely complex communications systems like human languages later in this chapter. For the present, let’s begin with a quick overview of what linguistics is and what linguists study.

Linguistics studies the organization and operation of complex communication systems, such as human languages like Japanese, English, Swahili, and so on. Recent counts suggest that perhaps 10,000 different human languages are spoken on earth. All human languages are similar in organization. One important similarity is that any human language can be analyzed as operating at different levels or as having separate but interacting modules. The following paragraphs survey the main modules of language investigated in linguistics.

The original text is 178 words long, and the following revised version was cut in half to 92 words:

(9) Example of **revised** text beginning the book

**Linguistics** is the scientific study of **language**, particularly of complex human communication systems such as English or Japanese. **Human language** is a complex communication system in which spoken sounds are combined and used to express and communicate thoughts, feelings, and such. Many human languages also use writing systems.

Recent counts suggest that there are perhaps 10,000 different human languages spoken on earth. All human languages are similar in organization. One important similarity is that all languages use sounds that are put together to form words and *sentences* which communicate *meanings* to others.

The changes in the revised text are too many to acknowledge. A main category would be eliminating difficult words. The phrase “*perplexing* question” is too

difficult and gets chopped. Another major change involved shortening. The definition “Linguistics *can be defined as* the scientific study of language” can be cut down to “Linguistics is the scientific study of language.”

Probably more important is “dejargonizing.” Linguists are used to speaking in certain ways. We speak of “All human languages are similar in organization. One important similarity is that *any human language can be analyzed as operating at different levels or as having separate but interacting modules.*” The revised text is simpler and much more straight-forward: “All human languages are similar in organization. One important similarity is that all languages use *sounds* that are put together to form words and sentences which communicate *meanings* to others.”

Finally, the textbook localizes the material by placing ideas in the students’ personal context. A recurrent theme in the CBI literature is the importance of contextualizing information. For instance, The “Rules of English” are not taught for their own sake but to help master context knowledge (Stryker & Leaver 1997a: 6-7). I’ve employed two strategies to contextualize information in their personal context. (i) The first is the frequent, brief exercises to make sure the students’ understand the material being presented. (ii) A second strategy is often asking the students to answer with Japanese examples — in order to help them realize that the linguistic point being discussed is not just a part of the “mathematics” of English but is part of a real, living language like Japanese. Their language. And some students said they particularly liked this strategy.

(10) Example of a mini-lecture and an exercise requiring an answer from Japanese

Phonetics notices that the “p”-sound in the word **pan** is made with the upper and lower lips pressed together. This is also true for the “b” in **ban** and the “m” in **man**:

**pan** ← “p” sound made with the lips together  
**ban** ← “b” sound made with the lips together  
**man** ← “m” sound made with the lips together

**Exercise 2-4:** Give a Japanese example of a word that begins with (a) [p], (b) [b], and (c) [m]:

- (a)
- (b)
- (c)

In sum, following the CBI principle of making the text appropriate to the needs of specific groups of students involves making many changes in the textbook, some radical. On the mild side, (i) to help students focus on key terms, key terms are highlighted by bold facing, and are carefully defined, explained and exemplified. More unusually, (ii) chapter glossaries of all key terms are added. Much more radical, (iii) the vocabulary and text as a whole are simplified to the greatest extent possible. On the one hand, simplifications include keeping exercise vocabulary within the list of “Essential Vocabulary” recognized in Japanese educational circles. On the other hand, it means reducing the sheer amount of academic verbiage to the absolute minimum and “dejargonizing” the exposition as much as possible (which carries the penalty that the text is not as “authentic” as one would prefer). And most radical of all, (iv) the text exercises often call for the students demonstrate understanding of a point about the English language with *Japanese* examples. All of these changes aim to help students find and localize the content information, but they also require considerable instructor time.

## Endnotes

<sup>1</sup> The parenthesized letters after student comments are the initials of the student's name, and it is perhaps worth noting that I explicitly tell my students not to worry about niceties such as English spelling and grammar when they write their class evaluations.

## Bibliography

- Balliro, Lenore. 1993. What kind of Alternative?: Examining Alternative Assessment. *TESOL Quarterly*, 27(3): 558-61.
- Benesch, Sarah. (ed.) 1988. *Ending Remediation: Linking ESL and Content in Higher Education*. Washington, D.C.: TESOL.
- Brinton, Donna M., Marguerite A. Snow, and Marjorie B. Wesche. *Content-Based Second Language Instruction*. Boston: Heinle and Heinle.
- Brinton, Donna M., and Peter Master (eds.) 1997. *New Ways in Content-Based Instruction*. Alexandria, VA: TESOL.
- Brooks, Elaine. 1988. When there are no links between ESL and content classes. In Benesch, 21-32.
- Conrad, Susan M., and Lynn M. Goldstein. 1999. ESL Student Revision after Teacher-Written Comments: Text, Contents, and Individuals. *Journal of Second Language Writing*, 8(2), 147-179.
- Corin, Andrew. 1997. A Course to Convert Czech Proficiency to Proficiency in Serbian and Croatian. In Stryker & Leaver 1997b, 78-104.
- Eagle, Sonia. 1997. Content-based Teaching at KUIS. *Kanda Gaigo Daigaku Kiyou*, 9: 1-25.
- Finegan, Edward, and Niko Besnier. 1989. *Language: Its Structure and Use*. San Diego: Harcourt, Brace, Jovanovich.

- Flowerdew, Lynne. 1998. A cultural perspective on group work. *ELT Journal*, 52 (2): 323-28.
- The Kenkyusha Japanese-English Learner's Dictionary*. 1992. Shigeru Takebayashi, chief editor. Tokyo: Kenkyusha.
- Kristeva, Julia. 1989. *Language The Unknown: An Invitation into Linguistics*. Translated by Anne M. Menke. New York: Columbia University.
- Kuiper, Koenraad, and W. Scott Allan. 1996. *An Introduction to English Language: Sound, Word and Sentence*. Houndsmill, Basingstoke, Hampshire: Macmillan.
- McGarry, Richard G. 1998. Professional Writing for Business Administration: An Adjunct, Content-Based Approach. *TESOL Journal*, 10 (6): 28-31.
- Mohan, B. 1986. *Language and Content*. Reading, MA: Addison-Wesley.
- Rosen, Nina G., & Linda Sasser. 1997. Sheltered English: Modifying content delivery for second language learners. In Snow & Brinton, 35-45.
- Sedley, Dorothy. 1990. *Anatomy of English: An Introduction to the Structure of Standard American English*. New York: St. Martin's.
- Seedhouse, Paul. 1999. Task-based interaction. *ELT Journal* 53 (3): 149-56.
- Short, Deborah J. 1993. Assessing Integrated Language and Content Instruction. *TESOL Quarterly*, 27(4): 627-56.
- Shaw, Peter A. 1997. With One Stone: Models of Instruction and Their Curricular Implications in an Advanced Content-Based Language Program. In Stryker & Leaver 1997b, 261-282.
- Snow, M. A., & Brinton, D. M. (eds.) 1997. *The content-based classroom: Perspectives on integrating language and content*. White Plains, N. Y.: Addison Wesley Longman.
- Stoller, Fredricka L. 1999. Time for change : A hybrid curriculum for EAP programs. *TESOL Journal*, 8(1), 9-13.
- Stryker, Stephen B., and Betty Lou Leaver. 1997a. *Content-based Instruction: From*

- Theory to Practice*. In Stryker & Leaver 1997b, 2-27.
- \_\_\_\_\_.(eds.) 1997b. *Content-based Instruction in Foreign Language Education*. Washington D.C., : Georgetown.
- \_\_\_\_\_. 1997c. *Content-based Instruction Content-based Instruction: Some Lessons and Implications*. In Stryker & Leaver 1997b, 282-312.
- Vines, Lois. 1997. Content-Based Instruction in French for Journalism Students at Ohio University. In Stryker & Leaver 1997b, 118-40.