Reading College Social Science Texts: Three Problem Areas

Michael Sagliano

Studying content in the social sciences and humanities through English is a rigorous task for second language (L2) learners. Shih states that concentrating, memorizing, thinking critically, and studying "can be very discouraging for students being educated in a second language and in an unfamiliar educational system" (1992, p. 290). Second language learners experience these challenges in a variety of academic environments - in universities overseas, and in branch campuses of foreign universities, or in institutions within their own country, for example those that have experimental curricula in English. Coping with college-level social science readings, in particular, can be daunting for English as a Foreign Language (EFL) students. A social science is defined as a "scholarly discipline that deals with such study, generally regarded as including sociology, psychology, anthropology, economics, political science and history" (American Heritage Dictionary, 1992, p. 1710). L2 learners study potentially dense material in new educational surroundings, and they may lack previous experience and knowledge about topics in the social sciences. In fact, social science content can be radically different from that previously learned in L2 students' native educational system (King, Fagan, Bratt & Baer, 1992). Also, reading English in social science texts poses serious difficulties for non-native students in college-level courses because these texts demand high level literacy skills and an "extensive background knowledge" (Short, 1994, p. 585) on the part of readers. Subject matter in the social sciences often goes beyond students' personal experiences in that it requires that students "develop concepts of time, chronology, distance and differing ways of life" (Chamot & O' Malley, 1994, p. 259). Moreover, main concepts contained in readings in one social science discipline are often abstract and based on and interrelated with other disciplines (Chamot & O' Malley, 1994). To aid students in reading social science materials in content-based teaching in English for Academic Purpose (EAP) EFL, and adjunct courses, the EFL instructor must facilitate reading in several areas.

In this paper, I identify and describe difficulties that students have in L2 reading in the social sciences. I relate the difficulties to three key areas: background knowledge, linguistic features, and graphics. Suggestions for designing materials and implementing reading techniques to overcome some problems in these areas are offered. These recommended materials and techniques have been particularly effective in teaching Japanese college students in an EFL context; however, they may have practical application in other college teaching situations with diverse student populations, in humanity courses, and in English as a Second Language programs. The sample activities and materials were used in social science courses at Miyazaki International College (MIC) in Japan, namely in history, political science and sociology. Concerning progression, I believe that activities to build background knowledge should precede those dealing with linguistic structures and graphics; otherwise no strict sequence in applying these techniques is intended. Moreover, these tasks and teaching strategies serve only as examples of ways that one might proceed to handle reading difficulties in the social sciences. Instructors will, as a matter of course, adapt and devise responses appropriate to their own particular teaching situations.

Michael Sagliano, an English faculty member at Miyazaki International College, currently teaches collaborative courses to first and second year students. He has taught content-based language courses in Japan, Bahrain and the United States. From 1992-93, he served as JALT-Akita's founding president.

1. Background Knowledge: An Introduction

A principle difficulty for many EFL student readers in the social sciences is their unfamiliarity with social science topics from their previous educational and personal experiences. This may seriously diminish students' ability to read social science reading materials effectively. Background knowledge or schema, defined as "previously acquired knowledge" (Carrell & Eisterhold, 1988, p. 76), must be tapped as a preliminary step to reading. Many educators (for example, see Carrell, Devine & Eskey, 1988; Jones, Palinscar, Ogle & Carr, 1987) believe that text comprehension is "an interactive process involving the reader's existing background knowledge and the text" (Chen & Graves, 1995, pp. 663-664). For example, Carrell states that readers "need to be able to process material from the top down, having general knowledge of the broad picture before studying the details" (Short, 1991, p. 5); this schema-building must occur before the introduction of the topic .

Informal surveys of Japanese college students enrolled in first year Introduction to History courses the past two years at MIC, for example, revealed that only a minority of students had studied world history or geography in the past. In fact, the Japanese Ministry of Education's high school curriculum allows students choices in taking courses in the social sciences. As a result many students will have studied completely different social science courses in high school. For example, world history has not been a mandatory subject in Japanese high schools. College teachers can not assume that these students would have previously acquired a common set of social science courses. Cantoni-Harvey (1987) insists that content-based teachers must realize the impact that lack of relevant schema has upon second language learners in order to design appropriate strategies for instruction.

Some techniques for constructing schema suggested are semantic mapping (Short, 1991), known also as mind maps or spider diagrams, realia, such as pictures, real objects, and transparencies (Richard-Amato & Snow, 1992), as well as various cooperative learning activities. Also, schema can be promoted by prereading listening/speaking and writing activities. These require that instructors introduce students to a topic to gain background knowledge on a particular social science topic by engaging them in prereading activities. A few examples of my own techniques that have effectively utilized background knowledge follow.

Background knowledge: Sample activities

The use of commercial games in the classroom is one way to build background knowledge on social science topics. For example, throughout an introductory world history course, each student played the role of one of the earliest civilizations using *The Advanced Civilization Game* (1991), a commercial game on the growth and development of civilizations. Acting the role of a nation of peoples, students were exposed to key historical concepts, previously unknown words, and most importantly, were asked to use their personal experiences attained through game play to create a civilization. These personal experiences constructed schema that overcame gaps in students' previous educational knowledge of civilization development. Educational game-based assignments and exercises increase understanding of a social science topic prior to in-depth text reading on it. Assignments related to game playing (see Figure 1) can be used to exploit student background knowledge.

In cooperative learning activities, students were often urged to draw pictures to reveal and expand upon their background in historical concepts. For instance, groups of 3-4 students were given a piece of posterboard and a set of colored markers. Through discussion, students were also requested to draw pictures and/or symbols to show the key elements of Japanese culture. Following this hands-on activity, each group orally presented their poster to the others and shared information.

Game-related assignment (excerpt)

Directions: Write a history of your civilization.

Describe how your civilization has been developing: its migrations, its cities (location), its relations, wars or friendships with neighboring nations, areas settled (location), population, its developments, troubles suffered (such as earthquakes), its economy, friendly (allied) and unfriendly (enemy) nations, etc.

Describe what things have happened to your civilization in rough chronological order.

Describe why your civilization has been successful or why it has not been successful so far.

Predict what will happen to your civilization next, and state what plans you have to develop your civilization in the future.

Use the map and include vocabulary below to write your history.

Verbs	Nouns	Adjectives
	people	
migrated	migration(s)	
	population	populated
spread to		
population expanded	expansion	
took a census	census	
agriculture	agriculture	agricultural
		rural
	countryside	
farmed	farmers	
	farmland	
cultivated	cultivation	
supported (cities)	support	

Figure 1

Another technique for stimulating background knowledge is through the use of objects. Background knowledge is activated when students are offered opportunities to "communicate about social studies in oral, written, physical, or pictorial form" (Short, Mahrer, Elfin, Liten-Tajeda, & Montone, 1994, p. V). To prepare students for a reading passage on the topic of artifacts in historical research, the instructor collected a number of unusual objects and souvenirs from various countries and

Brainstorming for background knowledge: Time

Directions: Take a few minutes to think about and discuss the following questions on the topic of TIME. You will be surprised to know that you already possess a great deal of knowledge about various topics in history from your own experiences and previous education. Others in your group may provide even more information about the topic when you discuss the answers to questions.

What is time?
What is its purpose?
Why did people invent time?
When was time created?
How did the first peoples in the world measure it?
Depending on time and location, were there different ways to measure time?
Are all calendars in the world the same? Why or why not?
When was the world created?
What was the Big Bang?
When did the story of your family begin?

Figure 2

displayed them in the classroom. Students were asked to guess the probable origin, purpose and the way of life indicated by each artifact. Students circulated, speculated

and discussed their opinions with each other. By doing so, they overcame, in part, their previous lack of knowledge about artifacts, and were quite confident to tackle a reading on the topic.

Also, brainstorming worksheets can be easily devised to elicit background knowledge. Notice how the students are asked to reflect on the topic of time in Figure 2.

Background knowledge: Incorporating personal experiences

In particular, instructors must exploit individual experiences of students, however indirect, to develop students' background knowledge. Short stresses the importance of building analogies upon previous knowledge and "relevant real-life experiences" (1991, p. 5). Sharing of personal happenings related to a social science topic must be encouraged in order to make connections between the student's life and the reading topic. Pictures, hands-on activities, speaking, listening, and writing activities all promote personal interest in social science topics. A description of one such activity follows.

Prior to extensive readings on the French Revolution, students in cooperative learning groups brainstormed and listed examples of rules that they objected to in Japanese high schools. One common rule that was most complained about, no smoking, was printed on an OHP transparency. Each student in turn was asked to give an example from their own experience as to how that rule was protested. Next, students were asked to hypothesize additional ways that they could have protested the no smoking in school rule. Using their high school experiences, students provided a list of actions that closely paralleled the steps that escalate from protest and lead to revolution; the focus of the up-coming reading topic in the French Revolution.

The various background-building activities outlined above have proved successful among those Japanese students who lack any personal experience with, or previous exposure to studying a particular social science topic in high school.

2. Linguistic Features: A Brief Introduction

A second problem area of reading social science texts is concerned with language. Social science prose and its inherent language demands are difficult even for native English readers and particularly challenging for second language learners. Educators have reported on this problem both for native and second language learners in varied situations - primary, secondary and college courses (Franklin & Roach, 1992: Short et al, 1994: Beck & McKeon, 1969). Complex and varied structures, such as embedded clauses, technical and abstract vocabulary, relationship of ideas, and numerous expository passages are all present to bedevil the comprehension of second language readers. In this section, the author suggests ways to handle student difficulties with text organization, structure and vocabulary. These techniques are especially appropriate for use with those Japanese college students who tend to spend an in exorbitant amount of time decoding English reading texts into Japanese (Horibe, 1995).

Linguistic features: Organization patterns

As in any subject area, certain textual organizational characteristics are more prevalent than others. EFL students must be repeatedly exposed to patterns of organization, so that they will be able to build-up schema and develop strategies in using the text structure to understand and recall important concepts (Shih, 1992). According to Short, "sequencing and cause-effect structures ... are the most prevalent features of [social science] texts" (1994, p. 592). These expository organization

patterns are much more demanding in comprehension than narratives and descriptions. Making students aware of the importance of signal words, such as, *in contrast to*, and *as a result*, to indicate organization patterns and their relationship to concepts can be of great aid to students trying to relate ideas in the text. These words "can be helpful for English language learners when they are explicitly taught to recognize them and understand their functions" (Short, 1994, p. 593). Figure 3 is an exercise designed to raise awareness of the significance of signal words for pattern recognition.

Signal words

Directions: Answer the questions. Reread the text when necessary.

Reading: The French Revolution

Paragraph 2 (In the same way...)
The words, **"In the same way"**, show a <u>comparison</u> between the French Revolution and the Industrial Revolution.
How are the two revolutions similar? _____
The Revolution changed the political and social way of life.
Look at the words **first**, **later** and **even** in the paragraph.
Where did the changes happen in the beginning? _____
Where did the changes happen after that? _____

Paragraph 5
Line 1
The words, **rather than**, show <u>contrast</u>.
What was the root of social life in the Old Regime? _____

Line 8
The words, **as an alternative to**, show <u>contrast</u>.
What other choice did people have instead of radicalism? _____

Lines 2 and 11
Thus (line 2) and **a direct result** (line 11) indicate <u>effect(s)</u>.
What are the effects?

Figure 3

Graphic organizers, defined as "schematic representations of information" (Chamot & O'Malley, 1994, p. 36), can be effective ways for students to organize textual information. They come in many forms–charts, T-lists, historical timelines. Teachers can teach text organization through these types of organizers and many others. Franklin and Roach (1992) voice their support for their use in social science classrooms.

Using graphic organizers to illustrate the relationship of main ideas of a particular pattern, teachers can demonstrate how knowing about the organization of a text increases the likelihood of gaining more information from those materials (p. 385).

In one type of graphic organizer, the T-list (see Figure 4), students read, distinguish between the main concepts and details, and complete it. Organization patterns are explicitly displayed. Although the sample below has been filled-in previously by the instructor to illustrate the procedure, ideally students in subsequent T-lists would completely construct their own. Notice how students are asked to provide examples gleaned from their own background besides those that students have located in the passage.

Charts are an excellent means for students to visually represent organization patterns found in reading passages. Figure 5 is an example of a chart for comparing and contrasting historical information.

T-List

MAIN IDEAS	DETAILS (EXAMPLES)
History is the entire record of how humans fit with others and their environment. Meaning of adaptation: _____ Humans adapt in 2 ways: 1) 2) Instinct: How much control? a) humans b) animals	 examples: parents YOUR example: example: birds YOUR example:

Figure 4

Chart: Comparison and Contrast of Mesoamerican Civilizationn

Read pages 52-54 and complete the chart below. Give as much information as you can about each civilization.			
Mesoamerican civilizations	**1. Olmec**	**2. Maya**	**3.Teotihuacan**
geographical location			
monumental architecture: example(s)			
urban architecture: example(s)			
cities: description			
agriculture:location and type			
spread of culture			
elite: evidence			
craftsmen			
trade: description			
writing system			
calendar			
diet			

Figure 5

Even though sequencing and cause-effect relationships are more commonly found in social science texts, EFL instructors (and their content-specialist partners) should not overlook the fact that "most expository texts exhibit a mix of structures; and any structure may exist at the sentence, paragraph or passage level" (Beck & McKeon, 1969, p. 483). Students must be trained to notice multiple patterns of organization in an assigned reading. They should not be lured into a false sense of

security in discovering a single pattern. Study guides prepared by the EFL instructor, can alert students to the presence of various organization patterns within a short passage. Concurrently, these study guides can provide assistance with difficult vocabulary, referents, and other pertinent linguistic features. The study guide in Figure 6 makes students aware of multiple patterns of organization present in the particular passage that they are reading.

Reading Study Guide (excerpt)

Origins of Civilization

page 1, paragraph 1
What are the two results of the earth's warming and the retreat of the glaciers?
1.)
2.)

page 1, paragraph 2
Define Homo Sapiens. Homo Sapiens are _____
Give the reason why Homo Sapiens were able to replace other sub-species around the world?

What does **supplanted** mean?

page 1, paragraph 3
Complete the chart below.

Cause	Effect
People began to harvest grasses on a regular basis	
	a higher percentage of the crop could be havested.

page 2, paragraph 3
Such as indicates examples.
What are the examples of by-products of domestic animals?

page 2, paragraph 4
Explain how harvesting of grain changed over time. Use the time transition words as clues.

Time transition words	Changes
In the first place	
Later	
Finally	

Figure 6

Linguistic features: Structure

EFL instructors will have to spend a lot of time in teaching students strategies to deal with common structural (grammatical) features in social science reading materials. Lengthy sentences, filled with phrases and clauses, the frequent use of diverse verb tenses, and pronouns as referents must be dealt with in a timely and effective fashion by EFL students while reading (Chamot & O' Malley, 1994). Otherwise loss of comprehension and interest will occur.

One worksheet that works on antecedent reference imbeds questions within the reading. It forces students to stop and concentrate on the meaning of pronouns and synonyms in the passage. Figure 7 from a history passage demonstrates this.

Even when students understand the meaning of every word in a sentence, they encounter grammatical structures that make the sentence very complex (Singer & Donlan, 1989). One way to address this problem is to have students focus on single sentences with difficult elements, such as those that contain commas at both ends of clauses and phrases. Divide a sentence into various components, for example;

subject, main verb and complement, prepositional phrase, subordinate clauses, phrase set of with commas, etc. The sentence is cut into strips and each group of three to four students examines a set of these sentence parts. A competition in finishing the task first between groups spurs interest. Through analysis and the tactile movement of the parts, the student reconstructs the sentence. Explanation of the correct order by the instructor can lead to greater awareness of the elements of English sentence structure. The students begin to locate the essential parts of the sentence.

Referent exercise

Word reference
Paragraph 7 (History as a Product of Culture)

Many cutting and chopping tools were left behind by Homo erectus in the temperate regions of Eurasia. These indicate (**What does These refer to?**) that humanity's ancestors lived in small communities and that they (**Who are they?**) gradually became effective hunters. Much of the development of these sophisticated tools occurred before our ancestors (**Whose ancestors?**) had languages capable of a high degree of complexity. Early humans probably were incapable of articulate speech until less than one million years ago. This assertion (**What assertion?**) is based on the position of the larynx, which only became located in its present position in fossils dating from about 3000, 000 years ago.

Figure 7

Linguistic features: Vocabulary in social science texts

Comprehending vocabulary in social science readings is an obstacle for EFL students. Many words are not defined in sufficient detail, in depth or even highlighted as important terms (Short, 1994). The passages in which these terms are found often do not provide enough context for students, who may lack the before-mentioned experience and background knowledge, to comprehend. Furthermore, words in these textbooks are found to be specialized and complex, in that a single term may stand for a group of related ideas unknown to the second language learner (Chamot & O'Malley, 1994). The problem is compounded by the reading passages which frequently contain dense words. In such circumstances, the EFL instructor must constantly devise activities to overcome the initial and probably the most frustrating problem facing second language readers namely, vocabulary.

At the outset, students' prior knowledge of key words in a reading should be ascertained. Figure 8 illustrates one technique that is used to discover students' familiarity with terms in a team-taught political science course.

Background vocabulary check

Each of you comes to this class with background knowledge and experience about various topics and the world itself. Please do not use a dictionary to determine the meaning of the words below.

What do you believe these terms mean? Can you give an example from your experience or knowledge?

A regime	A norm
A rule	Enforcement
Multilateral	Sanction
Legal	

Figure 8

Determining whether or not a student knows the meaning of particular words is only a beginning. Cantoni-Harvey points out that ". . . memorizing and recognizing new vocabulary is pointless unless the learner can relate the items to the cognitive

schema which he has already constructed" (1987, p. 119). The author favors a three-step approach for students to follow in relating new vocabulary encountered in social science texts to their previous background knowledge. First, students' background knowledge of the vocabulary is activated. This is done by presenting students with a list of potentially troublesome words taken from the passage as well as ones that are probably familiar to them. Students are asked to redistribute words into a few common sets according to some principles; they will be able to make connections and aid their understanding and retention of new words. Having students group words according to some common principle is a means of establishing word and concept relationships. Secondly, guessing in context is encouraged. Finally, a dictionary search is used if approximate meaning of the word is still required by the reader. An example of this guided three-step approach is shown in Figure 9; vocabulary is taken from a political science and environmental issues lesson.

Three-step approach to understanding word meaning

Step 1: Use your previous knowledge of the words below to place each of the following words into one of the classes, such as POPULATION.

people	growth	irrigation	reside
stabilize	air pollution	arable land	families
monoculture	soil erosion	mechanization	earth
global	countryside	coverted	demographers
dwindling	consumption	high-input	cities
salinization	urban		

Categories

POPULATION   ENVIRONMENTAL   WORLD

CITIES   NATURAL RESOURCES   AGRICULTURAL LAND

Step 2: Read the passage. Use the context of the reading to help you to understand and classify words.

Step 3: Use a dictionary to help you categorize any of the remaining words.

Figure 9

Relationship lines

Write each of the following words along either of the two lines, DEATH-DANGER or DANGER-LIFE.

threat	damage	risk	hazard
sustain	destruction	conserve	degradation
harmful	toxic	survival	maintain integrity
depletion	support	restorative	

DEATH   DANGER   LIFE

Figure 10

There are other ways to foster comprehension and retention. Asking students to plot new vocabulary along relationship lines requires understanding word meanings, relationship of individual words with others on the line, and degree. Figure 10 uses words taken from a reading on environmental pollution.

Once word meanings are understood, students can reinforce their understanding by maintaining a notebook in which pictures are drawn to describe the new terms. Figure 11 shows one such exercise involving words from a political science passage.

Vocabulary notebook exercise

Example: Take the word **emissions**. A picture is drawn to describe its meaning
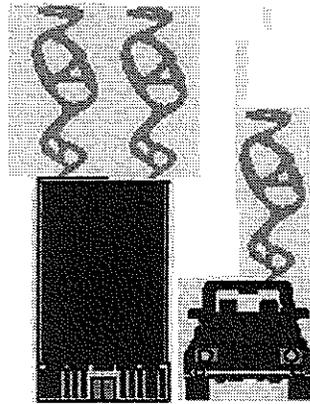
Exercise
Draw an image (picture) for each of the following words in your notebook:

1. urbanziation	5. chemical compounds	9. ban
2. economic activity	6. toxic chemicals	10. consume
3. threat	7. transnational	11. negotiate

Figure 11

3. Graphics

Graphics are the third major obstacle confronting EFL readers in the social sciences. Vital information that supplements or expands social science prose is contained in these graphics. Graphs, timelines, pictures, charts, and maps are liberally interspersed in social science texts. All of these require the reader to put into prose what is represented on the page in non-verbal terms (Richard-Amato, 1992). Singer, quoting Fry (1981), states that one reading goal in the social sciences must be "graphical literacy" (1989, p. 429).

Actually, the first task of the EFL instructor is to raise EFL learner's awareness of the importance of graphics. Despite an abundance of graphics in most social science texts, many second-language learners ignore them and instead concentrate only on the passage. For example, students often do not preview a chapter reading. They tend to read straight through from the beginning to the end of the assigned reading. Encouraging students, as a prereading activity, to examine all graphics in a chapter and to make predictions prior to reading textual reading is the first step. The second step is to devise exercises that deal solely with the graphic itself. Often a great number of important content concepts are found in graphics; these should not be disregarded. Tasks can be created to direct students to attend to information presented within these visuals. Getting students to engage their background knowledge on the topics as well as their interests and opinions can foster greater attention to visuals. Figure 12 demonstrates one technique for using a discussion task to study a particular graphic.

Discussion task

Six Periods of World History

Six Periods of World History

Directions; look carefully at the chart. Discuss the answers in your group.

A. Information in the chart

1. How did people survive in the Old Stone age?
2. Why is the period 550-1750 called the Age of Interaction?
3. How did people survive in the Old Stone Age?
4. What new lifestyle appeared in the period of Early Civilizations?

B. Your opinions

1. Which period of history would you have liked to live in? Why?
2. Which period do you think was/is the most exciting?
3. Which period in history do you think was/is the most dangerous?

Figure 12

Another way to approach graphics, such as the Six Periods chart mentioned above, is to have students transfer the information in a graphic to picture form. Once the picture is created, an oral presentation of the material depicted in it is made. This type of exercise is illustrated in Figure 13.

Pictorial representation of a graphic

Directions: On the butcher-block paper, pairs will draw pictures to describe one of the six periods in world history. You can not use any words. Make sure that you include all the characteristics of the period in your picture. After you draw it, give an oral presentation defining the period and describing it in detail.

Figure 13

It should be stressed that interpretation of graphics is especially demanding for EFL students since they often have an insufficient vocabulary and/or lack of structural control to express themselves well verbally or in writing. In order to comprehend, students must be able to "connect new knowledge to knowledge he or she already possesses" (Chen & Graves, 1995, p. 664). One activity used by one of my content partners in a political science and environmental issues class was useful not only for interpreting timelines but also for bridging students personal experiences and background with an environmental topic. What he did was to ask each student to plot their own timeline on the blackboard to illustrate important events in their past, and to predict ones in their future. This hands-on technique involved creativity and promoted discussion. Having related timelines to this personal topic, the next step was to have students create a timeline that showed past world environmental disasters, ones previously introduced in mini-lectures. Students interpreted this timeline and plotted future calamities.

A graphic is useful for reviewing key concepts from reading assignments as well. As an example, in a history course, students were divided into four groups. Having read an extensive reading the last two nights on the topic, four developments of secondary civilizations, each group was responsible for discussing one of the developments. Then, a member from each group marked the historical locations of each development on a textbook map of Asia that was shown on an OHP transparency. Oral explanation followed. Correct indication of locations on the map not only demonstrated understanding of the assigned reading but also served as visual reinforcement of the written word.

Finally, comprehension-check exercises can be composed to use students' personal knowledge of their homeland, for example, to elicit verbal evidence that they have grasped the meaning of a particular graphic. In this case, comprehension of and facility with geography words and map reading is being gauged.

Comprehension-check

Unit 2 (Geography)

Look at the map of modern Japan.

1. Describe the physical features and location of Sado.
Example: Sado is an island located to the west of Honshu. It is surrounded by the sea of Japan.

2. Describe the physical features and location of Mt. Fuji.
Example: Mr. Fuji is a mountain located west of Tokyo. Its elevation is 12,388 feet.

Find the following places on the map and describe the physical features and location of. . .

Hokkaido	Sammyaku	Biwa
Yodogawa	Tokyowan	Japanese Alps
Izu	Sabozan	Goto Retto
Lake Hamana	The Pacific	Kanto
Shikoku	Shichitoo	

Useful vocabulary and language:

peninsula	surrounded by	mountain range
mountain(s)	elevation	hill(s)
located	plain (flatlands)	northern, western, etc.
sea (body of salt water)	north, east, etc.	lake (body of fresh water)
ocean	river	

Figure 14

In addition, pair work activities, such as information gaps, are another means of encouraging students to explain graphical materials. Here, one student has half the information needed to complete an exercise; the other student has the other half. In a geography lesson, the instructor prepared two copies (A and B) of textbook maps criss-crossed with lines of latitude and longitude. One person had to plot a set of locations, such as Nova Scotia, by asking his/her partner where each place was located. The other student provided latitude and longitude. Roles were reversed. Correct placement of locations verified comprehension.

To sum up, there are three main problem areas of reading in the social sciences: background knowledge of specific reading topics, linguistic features in the text itself, and the employment of graphics to convey information. These hamper comprehension among second-language learner, especially Japanese students studying credit-bearing content courses in an EFL context. The literature referred to in this article concerning social science reading lends support to this point of view. The sampling of activities and materials that have been presented have proven to be quite effective during the past two years in overcoming to some degree the difficulties that EFL learners have met. These were not meant to be an all inclusive set of formulas for meeting every challenge in EFL reading. Instead, I hope that these techniques and worksheets can be supplemented by, and incorporated with those already available to the instructor, or modified with relative ease for application in content-based programs in Japan and elsewhere.

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