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Designing and Evaluating an EAP Reading Textbook: English for Political Science and Economics

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This study aims to report an attempt to design and organise a content-based EAP reading course in political science and economics at a university in Japan, and to shed some light on learners' actual practices and preferences through the use of survey- and interview-based research participated in by 438 students. A principal axis of this project was the collaborative production of a textbook by language and subject teachers. A posthoc course evaluation from students and teachers highlighted a number of important pedagogical implications. First, learners, particularly higher-proficiency learners who read conceptually challenging articles, found easier units significantly more interesting and more difficult units significantly less interesting. Further analysis suggested that a good balance between the level of discipline specificity and that of language has to be maintained in order to arouse their interest. Another interesting outcome was that both higher- and lower-proficiency learners found word lists with L2 definitions significantly more useful than those with L1 definitions, which contradicts earlier findings with Japanese students. This seems to suggest that the use of the target language as a medium of instruction facilitated learners' thinking processes vis-à-vis L2, and that this affected their preferences. Moreover, higher-proficiency learners found group work, class discussion and listening to the teacher significantly more useful than did lower-proficiency learners, whereas the latter found translating significantly more useful than the former. This implies that the transition from a teacher-centred translation approach to a learner-centred communicative approach should be introduced gradually to lower-proficiency learners.

Key Words: EAP, reading, textbook evaluation, proficiency level

1 Introduction

Reading has generally been perceived as the most required EAP skill in higher education (Flowerdew & Peacock, 2001; Huang *et al*., 2006; Jordan, 1997). In Japan, as is the case with most EFL settings, traditional reading classes have focused on intensive reading of arcane classics, often based on a grammar-translation method. Nowadays, however, the pressure from an increasingly global society has led both tertiary institutions and teachers to pinpoint a synthesised and more practical teaching target, namely, English for Specific and

Academic Purposes (ESP and EAP)[1]. Strevens (1988) defines ESP using four absolute characteristics: (1) designed to meet specific needs of the learner; (2) related in its themes and topics to particular fields and activities; (3) encouraging the use of the language appropriate to those activities in syntax, lexis, discourse, semantics, etc; and (4) contrasting with "general English". Flowerdew and Peacock (2001) add five more features: (5) purposeful courses; (6) custom-made materials; (7) authentic texts; (8) use of a communicative task-based approach; and (9) adult learners.

First-year students at a Japanese university, who have only been exposed to "general English" prior to university, often have to face the immediate challenge of reading introductory textbooks in their specific fields, primarily written for native speakers of English. Here, learners have to overcome two layers of difficulty simultaneously: the lack of subject knowledge and the wide gap of language. When learners start to read for specific and academic purposes, English stops being an object of study and becomes a vehicle of information to deliver the knowledge they need. They have to focus on the understanding of the content rather than the language detail. To prepare for such forthcoming difficulty, EAP students often prefer reading texts related to their academic disciplines than literary or general texts (Kasper, 1995a, 1995b; Lipp & Wheeler, 1991)[2].

Although there is a wide variety of EFL/ESL textbooks available in the marketplace, few textbooks fulfill the needs of such students. The main problem comes from the inexorable attribute of commercial textbooks as economic products (Harwood, 2005; Jones, 1990). When marketability precedes other factors, including pedagogical effectiveness, it becomes challenging to publish a new type of ESP/EAP book targeting a small and specific group of consumers. To make matters worse, the importance of textbook writing is often ignored or depreciated by academics on the false assumption that it is not a proper scholarly activity (Swales, 1995). As a result, textbooks are often written for general purposes by "professional" writers with limited theoretical knowledge and experience of real classroom situations (Harwood, 2005). Despite such limitations, the published textbook often automatically becomes the authority in the classroom, leaving little space for teacher's photocopied materials offering original ideas.

While classroom teachers are well aware of these shortcomings, the advantages of the textbook should not be overlooked either. When learners take ESP/EAP courses with clear and specific learning targets, they expect systematic and balanced syllabuses and accompanying materials. Large institutions, in particular, often have to offer a number of courses with the same course title, for instance, *Academic Reading 1*, taught by different teachers. When the materials are left to the teachers' own choices, it becomes almost impossible to control and

[1] Following the convention of most of the literature, EAP in this paper is categorised as a sub-branch of ESP. EAP can be subdivided into English for Biology, English for Legal Studies, English for Political Science and Economics, etc.

[2] It should be noted that there are also other cases which argue the opposite: Some students preferred reading a variety of texts including literary and non-literary texts (Hirvela, 2001) or texts outside their field with interest and novelty (Fransson, 1984).

manage the consistency and high quality of these classes. A common textbook offers the best solution to this practical problem. From the day of the first lesson, both teachers and learners are well conscious of what they are expected to do and what they are going to achieve (Harmer, 2001). Good textbooks also reduce individual teachers' workloads and increase the efficiency of their work. The crucial point to bear in mind is that the textbook should by no means be considered a monolithic manual that teachers have to follow slavishly, but rather as a wellspring of resources of specific themes and topics, which should be cooked, flavoured, and presented by the teachers to meet the local needs and tastes of their students. Out of these pros and cons of the EAP textbook, a call for the production of a custom-made textbook clearly arises.

This article is based on a project to establish a new EAP reading course, English for Political Science and Economics, in the Faculty of Political Science and Economics at Waseda University, in Japan. A principal axis of this project was the collaborative production of an EAP textbook titled *World Views* (2008) by language and subject teachers. Since the textbook was produced primarily to respond to in-house demand by faculty members and was created on a non-profit basis, it was unaffected by the usual constraints imposed on commercial textbooks. The collaboration between language and subject teachers purported to provide learners with firm guidance on narrowing the gaps in the "inextricably intertwined" knowledge of language and subject (Johns & Dudley-Evans, 1980, p. 8).

The course employs a content-based approach to instruction (CBI), where the primary goal lies in the acquisition of subject knowledge through the target language as a vehicle of information. This approach is theoretically supported by the findings of depth of processing research: the presentation of coherent and contextualised information induces deeper cognitive processing by the learners, which promotes better learning (Snow & Brinton, 1997). Content-based approaches have been reported by a number of scholars to be successful in improving learners' reading comprehension (Brinton et al., 1989; Hudson, 1991; Kasper, 1995a, 1995b; Snow & Brinton, 1997). Kasper (1997) provided further evidence that intermediate learners who enrolled in content-based ESL courses were more successful in their subsequent performance in the college academic mainstream and achieved a higher rate in earning a college degree than those who did not.

In order to design an EAP course, there are a number of practical decisions program administrators or teachers have to make in terms of the choice of materials and activities. Although a survey-based analysis of the needs of the students is often conducted prior to starting the project (Mazdayasna & Tahririan, 2008), the drawbacks of this have long since been pointed out: learners in general are not well aware of their own needs to prepare for a disciplinary study they are unfamiliar with (Chambers, 1980; Long, 1996) and, above all, the institution and teachers often have clear expectations about what learners should learn and achieve as a result of following the university curriculum. Since that was the case with this core EAP reading course for first-year students, no survey was conducted before the course[3].

[3] In our faculty, first-year students take three compulsory courses on speaking, reading, and

However, we believed that a posthoc course evaluation from participated students would add valuable insights allowing us to reflect upon the materials and method in use for further improvement. This paper's aim is twofold: it aims to report how the EAP reading course was designed and the discipline-based textbook produced, and to shed some light on learners' actual practices and preferences through the use of survey- and interview-based research. Quantitative and qualitative analysis of the data will lead us to examine the following pedagogical questions: What kind of and level of reading passages should be used? What pre-reading, post-reading, and vocabulary tasks should be incorporated? And what types of activities should be encouraged in the classroom? We will also look at how L2 proficiency relates to these issues. We believe the results will of use to program administrators or teachers who are planning to run/teach or are already running/teaching EAP courses.

2 Context of the Study: English for Political Science and Economics

2.1 Textbook *World Views*

The textbook *World Views* was produced by a committee consisting of four English teachers and four subject teachers. A joint discussion on the themes and framework was followed by the selection of reading passages for each unit. Subsequently, the teachers in politics and economics provided insights into the content and suggested further materials and discussion issues, while the English teachers added their linguistic expertise and explored the subject specialists' suggestions to propose a full draft. Although the latter played the leading role, wherever disciplinary-based knowledge was required, for example, in defining technical terms, both teams worked together in writing and editing the relevant section.

The textbook is divided into five main themes: *globalization*; *the environment*; *international relations*; *society and culture*; and *perspectives on Japan*. Under the umbrella of each theme, there are three units of a supposedly increasing level of difficulty: *foundation*; *development*; and *exploration*. This produced a total of 15 units. The main reading passages were carefully selected from academic essays, speeches by eminent politicians and economists, and articles from newspapers and journals (see Table 1). In the theme of *globalization*, for instance, the *foundation* level is based on an article about the globalization of language, featuring the spread of English. This is the only nonauthentic text in the sense that it was written specifically as the opening unit by the English teachers. The *development* level deals with an extract from an academic book (McWilliams & Piotrowski, 2005) that represents a negative view toward globalization by describing how the Washington Consensus has escalated the unequal distribution of wealth and damaged the environment. The *exploration* level contains a speech on the challenge of free trade in a global economy by Ben S. Bernanke, chairman of

writing, respectively. From the second year, they take two elective courses from a wide range of courses such as News English, Business English, Regional Studies, and English Online (a cross-cultural distance learning course).

the U.S. Federal Reserve Board, delivered at the Montana Economic Development Summit in 2007. In the first year of the textbook's use, lower-proficiency learners worked on Units 1 to 10 whereas higher-proficiency learners concentrated on Units 6 to 15; this meant that Units 5 to 10 were studied by both groups.

Table 1. Content-based Framework of the Textbook *World Views*: the Genres and Titles of the Reading Passages

	Part 1	Part 2	Part 3
	Foundation	*Development*	*Exploration*
Globalization	Unit 1 (A) The Spread of English	Unit 6 (A) Globalization: Remedy or Curse?	Unit 11 (S) Embracing the Challenge of Free Trade
The Environment	Unit 2 (J) Restoring the Forests	Unit 7 (J) Wars for Water?	Unit 12 (A) Environmental Sustainability
International Relations	Unit 3 (S) The Sinews of Peace (Churchill's "Iron Curtain" speech) (A) Debating the End of the Cold War	Unit 8 (S) The Birth of Modern India: A Tryst with Destiny (A) Imperial Legacies	Unit 13 (A) Liberalism and World Order
Society and Culture	Unit 4 (N) Young Sikh Men Get Haircuts (N) Long-Necked Karen Girls Yearn for Normality	Unit 9 (N) Growing Old, Baby-Boomer Style (N) In Japan, Seniors with an Edge	Unit 14 (A) Defining "Identity"
Perspectives on Japan	Unit 5 (N) For Japan, Defense of Whaling Scratches a Nationalist Itch	Unit 10 (J) Confess and Be Done with It (J) Japan, the Jury	Unit 15 (A) Soft Power and the Politics of Japanese Popular Culture in East Asia

Note. (A) Academic article
(S) Speech by a politician or economist
(J) Journal article
(N) Newspaper article

The order of units under the same theme was confirmed on the basis of a corpus-based vocabulary analysis, the length of the main passages, and discipline specificity. Table 2 illustrates the vocabulary analysis of Units 1, 6, and 11: the total number of words in Unit 1 is 1116, with the lowest tokens-per-type ratio, 2.4, whereas the total of Unit 11 is 2818, with the highest ratio of 3.0. Unit 1 also contains the lowest percentage of words from the Academic Word List (AWL, Coxhead, 1998; Coxhead & Nation, 2001), 5.4%, in comparison with 10.4% in Unit 6 and 11.8% in Unit 11. It has to be noted that although a clear ascending order was observed in most factors across the three unit levels, absolute consistency was not achievable, owing to the complexity of the interrelation of the factors involved. It

should be further noted that discipline specificity (from general to specific), which is of a qualitative rather than a quantitative nature, was also taken into account.

Table 2. Vocabulary Analysis of Units 1, 6, and 11: *Globalization*

	Unit 1 *Foundation*		Unit 6 *Development*		Unit 11 *Exploration*	
	n	%	n	%	n	%
Frequency: 1 to 1000	889	79.7	1197	72.3	2124	75.4
Frequency: 1001 to 2000	57	5.1	89	5.4	149	5.3
AWL words	60	5.4	172	10.4	332	11.8
Technical words	21	1.9	20	1.2	28	1.0
Low frequency words	110	9.9	197	11.9	213	7.6
Total words in text	1116		1655		2818	
Different word types	472		661		959	
Tokens per type	2.4		2.5		3.0	

Note. The number represents tokens unless stated otherwise.

2.2 Teaching method

In the CBI approach, learners read authentic texts on a number of subject-specific issues which are expected to serve as a substratum for their disciplinary study. Language is viewed holistically, and therefore reading comprehension is accompanied by a variety of integrated activities. According to the basic model employed here, one unit was covered in two lessons. In the first lesson, learners engaged in pre-reading activities, which involved reading the introduction section, answering the five content-orientated questions (e.g., what do you think "globalization" refers to?) in pair or group work, and learning about featured linguistic components (e.g., punctuation, rhetoric, newspaper headlines, and the writing of summaries). The primary purpose of this first part lay in activating learners' schemata, stimulating their interest in the topic, and facilitating the reading of the main passage. At home, learners were expected to read the main passages with the aid of a word list containing L2 definitions and with a specially compiled bilingual glossary provided at the end of the textbook. Learners were to acquire discipline-based information which could be explored and responded to critically at the next stage. This activity was seen as a crucial aspect of the reading course. In a major departure from the thrust of most reading courses, where students navigate the text under the careful guidance of the teacher (often with the aid of direct translation), the students here were instructed to read the text independently. This, of course, is the most natural form of "reading," where negotiation occurs between the reader and his or her text, without constant interference from a third party (e.g., a teacher). This, therefore, was the model of reading adopted for the course in question. It was aimed, as just suggested, at weaning students away from their traditional overdependence on any third party and encouraging *independent* negotiation of the text. This was seen as paving the way forward in realistic fashion to their future academic independence. In the subsequent lesson, which drew on

their reading of the main text, the students were able to ask vocabulary- and grammar-related questions if necessary, and then worked in pairs or groups to answer comprehension questions (e.g., what was the "Washington Consensus"?) and discuss matters in a way that elicited critical thinking (e.g., Do you think that free trade should be encouraged by your government? Why or why not?). The specific way each class could be developed was left to the discretion of the English teacher. All the teachers, who were native speakers of either English or Japanese, used the target language as the medium of instruction.

Table 3. Pre-reading, Post-reading, and Vocabulary Activities

Sequential Stage	Section of the Textbook	Description	Pedagogical Objective
Pre-reading (1)	*Introduction*	Approximately 250-word introduction with a picture	- provide background knowledge - activate schemata
Pre-reading (2)	*Your Views*	Five open-ended content-orientated questions	- confirm background knowledge - activate schemata
Pre-reading (3)	*Focus on Language*	A section explaining a linguistic feature (such as grammar, lexis, or style) with expansionary exercises	- provide linguistic knowledge/skills
Post-reading (1)	*Shared Views*	Five open-ended comprehension questions	- check understanding of the main passage
Post-reading (2)	*Expanded Views*	Five critical-thinking questions	- encourage expression of personal opinions on related political/ economic issues
Vocabulary (1)	*Vocabulary and Notes*	English definitions of key or difficult words/ phrases in the main passage	- facilitate understanding of the main passage - paraphrase
Vocabulary (2)	*English-Japanese Glossary*	Japanese explanation of technical words	- facilitate understanding of the main passage

3 Evaluation from Students and Teachers

3.1 Research questions and method

The article aimed to investigate the following three research questions: (1) Is there an correlation between learners' perception of easiness/difficulty of the reading texts and the degree of the interest aroused?; (2) Is there an correlation between learners' perception of the usefulness of the pre-reading, post-reading, and vocabulary tasks and their L2 proficiency?; and (3) Is there an correlation between

the learners' perception of the usefulness of types of learning activity and their L2 proficiency?

Four hundred and thirty-eight first-year students in 20 EAP reading classes in the Faculty of Political Science and Economics at Waseda University took part in the study. The forms were filled out anonymously and handed back on completion in class under the supervision of their English teachers in July 2008. A teacher-orientated version of the same questionnaire was completed by 13 teachers who were in charge of reading classes involved in the programme. All the collected data were analyzed in the SPSS statistics program. A significance level of 0.05 was set. Furthermore, interviews with four students (two lower-proficiency learners and two higher-proficiency learners) were conducted by the researcher to add qualitative information to supplement the quantitative data from the questionnaire. The interviews were conducted one by one to elicit participants' experience in learning English and their opinions on the EAP reading course and its textbook, *World Views*. All the sessions were recorded and videotaped.

3.2 Subjects

Of the 438 students, there were 259 lower-proficiency (hereafter LP) learners and 179 higher-proficiency (hereafter HP) learners, categories based on TOEFL scores taken in March 2008. The median of 473 was treated as a threshold. To investigate whether learners' L2 proficiency correlates with their attitude towards learning English, three questions were asked on a Likert scale from 1 ('do not agree at all') to 5 ('strongly agree'). Tables 4-6 present LP and HP learners' responses in the form of descriptive statistics. The results shown in Tables 4 and 5 indicate that there was a significant correlation between the two variables: HP learners generally enjoyed studying English significantly more than LP learners ($p=.002$, Cramer's $V=.196$); and HP learners would be significantly more willing to take another academic reading course than LP learners ($P<.001$, Cramer's $V=.226$). To sum up, the difference between LP and HP learners lies not only in their English proficiency but also in the extent to which they enjoyed studying English and their willingness to study academic reading further.

Table 6 reports learners' perceptions toward the importance of learning English for their future career. Of particular interest here, as the high mean scores suggest (4.30 for LP learners and 4.51 for HP learners), is the indication that learners of both proficiency levels similarly regarded learning English as important for their future career. Therefore, no significant correlation was observed between this variable and learners' proficiency.

Table 4. Frequency, Mean, and SD of the Item *In general, I enjoy studying English.*

	1	2	3	4	5
LP learners	14 (5.6%)	34 (13.5%)	92 (36.7%)	61 (24.3%)	50 (19.9%)
HP learners	4 (2.2%)	18 (10.1%)	44 (24.7%)	69 (38.8%)	43 (24.2%)

	Mean	SD
LP learners	3.39	1.12
HP learners	3.72	1.01

Note. Scale: 1 = do not agree at all, 5=strongly agree

Table 5. Frequency, Mean, and SD of the Item *I would be willing to take another academic reading course.*

	1	2	3	4	5
LP learners	27 (10.4%)	51 (19.7%)	102 (39.4%)	49 (18.9%)	30 (11.6%)
HP learners	14 (7.8%)	33 (18.4%)	40 (22.3%)	60 (33.5%)	32 (17.9%)

	Mean	SD
LP learners	3.02	1.13
HP learners	3.35	1.20

Note. Scale: 1 = do not agree at all, 5=strongly agree

Table 6. Frequency, Mean, and SD of the Item *I think that English will be important for my future career.*

	1	2	3	4	5
LP learners	6 (2.4%)	6 (2.4%)	35 (13.9%)	63 (25.1%)	141 (56.2%)
HP learners	2 (1.1%)	3 (1.7%)	18 (10.1%)	34 (19.0%)	109.5 (68.2%)

	Mean	SD
LP learners	4.30	.96
HP learners	4.51	.83

Note. Scale: 1 = do not agree at all, 5=strongly agree

3.3 Results and discussion

3.3.1 Learners' perception of the easiness / difficulty of reading texts and its correlation with the interest aroused

To examine which theme was most/least preferred, students were asked to single out the most/least interesting theme out of the five presented in the textbook. Table 7 shows the frequency and percentages of their responses. The shared order of preference was observed by both proficiency levels: *globalization* and *the environment* achieved the top two scores, whereas *perspectives on Japan* lay at the

bottom. There was no consistency for the least preferred theme except that *society and culture* collected the highest number of votes at both levels.

Table 7. Frequency and Percentages of Participants' Choice of Themes

	Most preferred theme				
	G	E	IR	SC	PJ
LP learners	85 (36.0%)	53 (22.5%)	32 (13.6%)	48 (20.3%)	18 (7.6%)
HP learners	55 (31.4%)	42 (24.0%)	31 (17.7%)	24 (13.7%)	23 (13.1%)

	Least preferred theme				
	G	E	IR	SC	PJ
LP learners	42 (18.1%)	51 (22.2%)	43 (18.5%)	56 (24.1%)	40 (17.2%)
HP learners	26 (14.9%)	31 (17.8%)	44 (25.3%)	45 (25.9%)	28 (16.1%)

Note: G = Globalization; E = The Environment; IR = International Relations; SC = Society and Culture; PJ = Perspectives on Japan.

Subsequently, to investigate whether learners' perception of easiness/ difficulty of each unit correlates with their interest, learners were then asked to choose the easiest, most difficult, most interesting, and least interesting unit out of the 15 units in the textbook. A significantly positive correlation was found between easiness and high interest, as well as between difficulty and low interest: in the former case, Cramer's V=.328, p<.001 for LP learners, and Cramer's V=.358, p<.001 for HP learners; in the latter, Cramer's V=.306, p<.001 for LP learners, and Cramer's V=.377, p<.001 for HP learners (See Appendix for Cross-tabulation Tables). This means that learners at both levels tended to find easier units more interesting, and more interesting units easier, and, conversely, more difficult units less interesting, and less interesting units more difficult. This tendency was slightly higher for HP learners. The effect sizes in all cases are considered to be medium or typical according to Cohen (1988).

This finding contradicts the research result from Taiwanese college freshmen majoring in management, which suggested that learners with higher motivation and higher proficiency preferred the more intellectually challenging materials (Huang et al., 2006). Although this result may imply relatively low motivation among our students, this would be at variance with the result in 3.2. When the researcher invited four students to interpret this result at the follow-up interviews, three students actually agreed that they gained a feeling of satisfaction and therefore found it more interesting to read easier texts because they managed to fully comprehend the passages in questions and felt that they had benefited amply from the information. When they read difficult passages, they sometimes gave up in the middle of reading or, even if they completed the passages, were left frustrated due to feelings of insufficiency. It seems that some of the materials presented were

actually beyond the limen of comprehensible input (Krashen, 1982) appropriate for their ability level. This tendency could be slightly greater with the HP learners, who read the more conceptually challenging academic articles from Units 11 to 15. Because the principal act of reading per se was performed at home, and classroom instruction focused on the subject content rather than the complexity of language involved, learners missed the while-reading chance to ask questions related to grammar or lexis whose answers would have assisted fuller comprehension of the text. Only one HP learner stated a categorical preference for reading difficult texts to easier ones.

A closer look at the genre of each unit also reveals that speech-based units were rated to be rather high in difficulty and low in popularity. Among the HP learners, Nehru's independence speech (Unit 8) was nominated as the most difficult (n=33, see Appendix A, Table 13) and least interesting (n=43), followed by Bernanke's speech on free trade (Unit 11) as the third most difficult (n=29) and second least interesting (n=23). The LP group chose Churchill's "Iron Curtain" speech (Unit 3) as the most difficult (n=88, see Appendix A, Table 11) and least interesting (n=46), although, noteworthily, almost the same number of LP learners rated this unit to be of their highest interest (n=45, see Appendix, table10). The contradictory result seems to indicate that there existed a group of exceptional "challengers" who preferred reading difficult material. At the follow-up interview, students responded that unfamiliar rhetoric, coupled with lack of historical background, made Nehru's and Churchill's speeches particularly difficult to understand and appreciate. It can be said that these articles are of high text-specificity (Clapham, 2001). Three teachers stated that their students lacked historical and background knowledge; another three teachers admitted that they themselves had to do a lot of research prior to the class. The unpopularity of Bernanke's speech, despite its straightforwardness and modernity in style as compared with the other two speeches, which are more historical in nature, seems to have come mainly from its considerable length (2818 words, see Table 2). To summarise, these findings seem to imply that transferring from traditional "general English" to a CBI-based EAP approach in itself means a big gap for learners. Therefore, teachers need to provide sufficient support in language as well as cultural/historical background to make sure that learners achieve adequate comprehension, thus enabling them to experience the joy of reading activities.

3.3.2 Learners' perception of the usefulness of pre-reading, post-reading, and vocabulary tasks and its correlation with their L2 proficiency

The questionnaire also asked learners to assess the relative usefulness of the pre-reading, post-reading, and vocabulary sections of the textbook on a Likert scale from 1 to 5. For HP learners, the most useful section was the definitions of key words and phrases in English (*Vocabulary (1) Vocabulary and Notes*, M=4.15, see Table 8), whereas the least useful section was the explanations of technical terms in Japanese (*Vocabulary (2) English-Japanese Glossary*, M=2.85), which was also rated as the least useful by LP learners (M=2.95). The most useful section for LP

learners was the *Introduction* (M=3.72), written in approximately 250 relatively straightforward English words, accompanied by a representative or explanatory picture.

Table 8. Statistical Results for the Measures of Learners' Perceived Usefulness of Pre-reading, Post-reading, and Vocabulary Tasks, and its Correlation with L2 Proficiency

	Evaluation score					
	LP learners		HP learners		Sig.	Cramer's
	M	SD	M	SD	(p)	V
Pre-reading (1) 250-word introduction in L2 with a picture	3.72	1.19	3.90	1.09	.534	.085
Pre-reading (2) Five content-directed questions	3.47	1.10	3.46	1.09	.909	.049
Pre-reading (3) Explanation and exercises for a linguistic feature	3.37	1.11	3.33	1.19	.674	.073
Post-reading (1) Five comprehension questions	3.35	1.04	3.69	1.06	.002	.200*
Post-reading (2) Five critical thinking questions	3.20	1.08	3.27	1.05	.647	.076
Vocabulary (1) The definitions of key words and phrases in L2	3.57	1.17	4.15	.95	<.001	.293*
Vocabulary (2) The L2-L1 Glossary	2.94	1.06	2.85	1.18	.093	.138

Note. Scale: 1 = do not agree at all, 5=strongly agree

* Correlation is significant at the 0.05 level (2-tailed).

The high evaluation of the usefulness of the *Vocabulary and Notes* section coincides with the outcome of the needs analysis of EAP students in Hong Kong (Evans & Green, 2007) and Hawaii (Ono, 2002, cited in Clark & Ishida, 2005) suggesting that understanding subject-specific or technical vocabulary was one of the biggest challenges they faced. In our textbook, L2 definitions were given in the hope that learners who lacked knowledge of key words and phrases would not need to invest considerable amounts of time in looking up unfamiliar words in a dictionary, an activity that would interrupt smooth reading and comprehension. In truly authentic situations, the vocabulary knowledge of our students may not have reached the level required for reading technical texts without a dictionary, i.e., 95% of the total words (Laufer, 1992).

Of particular interest here is our learners' preference for definitions in English rather than in Japanese, as such an indication contradicts previous research findings. The typical Japanese learner's preference for using an English-Japanese dictionary over an English-English dictionary has long been observed (Baxter,

1980; Nakamura, 2002), despite the general understanding among professionals that the use of monolingual dictionaries is pedagogically more effective than the use of their bilingual counterparts, particularly in providing knowledge for paraphrasing as a compensation strategy (Uchida, 2001). This preference for bilingual dictionaries was considered to be mainly due to the overwhelming use of Japanese as the medium of instruction in Japanese classrooms where English was being taught. As suggested earlier, one of the objectives of this EAP course was to encourage learners to read, think, and express themselves in English, for which purpose the use of the mother tongue was actively discouraged. This finding seems to suggest a certain success in this aspect. In the questionnaires, some HP students clearly stated their appreciation of a classroom policy whereby no translation activities were undertaken in the class. They had to read and understand the text directly in English, and this actually proved to be much more efficient than translating it into Japanese. At one follow-up interview, a certain LP learner volunteered the following: 'My high school teacher used to tell us to use an English-English dictionary, but I never listened. Now I know why he said it.'

At the same time, it should be noted that the English-Japanese Glossary was placed at the end of the textbook rather than being distributed more conveniently throughout the units specifically in order to discourage learners from overusing it. The tactic might have worked too well, as one LP learner at the interview remarked that he had not noticed that such a section had been included until the researcher pointed it out to him.

LP learners' preference for an introduction of the sort under discussion here is supported by schema theory (Anderson & Pearson, 1984). Reading comprehension can be facilitated when learners manage to activate schematic knowledge to prepare for the linguistic, cultural, or conceptual difficulties they will face in a text (Chen & Grave, 1995; Manzo, Manzo, & Estes, 2001). A student at one of the interviews expressed a liking for the simple English in which this section was written, claiming that he could concentrate on getting the gist of the unit without consulting a dictionary.

To investigate the relationship between learners' L2 proficiency and the perceived usefulness of pre- and post-reading and vocabulary tasks (see Table 8 for the full list) Cramer's V was used. The analysis indicated a significant positive correlation between proficiency and the perceived usefulness of comprehension questions (*Shared Views*) and the definition of key words and phrases in L2 *(Vocabulary and Notes)*. This means that HP learners found the sections of *Shared Views* and *Vocabulary and Notes* significantly more useful than LP learners.

At the follow-up interview, two LP learners commented that the five open-ended comprehension questions in the *Shared Views* were not sufficient to confirm their understanding of the text, and that they were sometimes left with a certain degree of uncertainty about parts of the text. Although they could have sought clarification from the teacher, they did not bother. Two teachers expressed the same concern in the questionnaire: 'Since there were only a limited number of comprehension "shared views" for each passage, it was difficult to see how well students understood the material—there was not enough time to go into detail to see

their comprehension.' As discussed in 3.3.1, this is probably one of the major challenges that teachers must overcome in this course: to maintain a proper balance between the instruction of content and that of language. Although this textbook encourages students to skim and scan relatively long texts rather than read them word by word, it does not aim to be extensive reading for pleasure. Teachers need to be prepared to give extra comprehension questions or extra tasks, such as writing summaries, to confirm the learners' successful understanding of the text, and, where this is lacking, to provide firm support for them. Furthermore, teachers need to create an atmosphere in which students feel comfortable asking questions.

The section *Vocabulary and Notes* was also better appreciated by HP learners than by LP learners. Four LP learners specified in the open-ended section of the questionnaire that not all the unknown words appearing in the main passage were included in the vocabulary list. Such, however, was the result of having only limited space available in the textbook for the presentation of such lists. Learners were expected to use inferencing strategies or skipping strategies where appropriate (Laufer, 1997). Another LP learner mentioned at the interview that, after reading *Vocabulary and Notes*, he always looked up all the listed words again, using an English-Japanese dictionary. Since he still felt the need to translate the main passages into Japanese, he felt impelled to find a translational equivalent for each word. These findings may imply that LP learners – at least those in this study – make insufficient use of proper reading and word attack strategies. All in all, a thorough introduction to and guidance of the appropriate use of such strategies seems highly beneficial, particularly for LP learners.

3.3.3 Learners' perception of the usefulness of types of activities and its correlation with their L2 proficiency

The questionnaire asked learners to identify all the activities they found useful from the list (see Table 9 for the full list). For LP learners, the most useful activity was listening to the teacher (M=.38). Although HP learners also found it useful to listen to the teacher (M=.47), group work outweighed this (M=.52). Translating was found least useful by both LP (M=.14) and HP (M=.07). Although the recent transition from a teacher-centred to a learner-centred approach has encouraged learner autonomy and active participation in classroom activities, LP learners may still have a tendency to draw upon the teacher, while HP learners can take more responsibility for their own learning.

To examine the relationship between learners' perception of the usefulness of types of activities and their L2 proficiency, the data were analysed using Pearson's chi-square. As Table 9 indicates, HP learners, on one hand, found group work, class discussion, and listening to the teacher significantly more useful than LP learners, with the strongest effect size given to group work (Phi=.233). On the other hand, LP learners found translating activities significantly more useful than HP learners, although the mean score for translating was still the lowest among all the options.

Table 9. Statistical Results for Learners' Perception of the Usefulness of Types of Activities and its Correlation with L2 Proficiency

	Evaluation score					
	LP learners		HP learners		Sig.	
	M	SD	M	SD	(*p*)	Phi
Pair work	.22	.41	.22	.42	.857	.009
Group work	.29	.45	.52	.50	<.001	.233*
Class discussion	.20	.40	.39	.49	<.001	.203*
Vocabulary activities	.28	.45	.28	.45	.874	.008
Listening to the teacher	.38	.49	.47	.50	.054	.092*
Translating	.14	.34	.07	.26	.040	-.098*

Note. Scale: 1=Yes, 0=No

* Correlation is significant at the 0.05 level (2-tailed).

These results coincide with LP learners' tendency to overrely on the use of the mother tongue, as suggested in the literature (Corder, 1983; Ringbom, 1995). HP learners, on the other hand, found a variety of other activities, including communicative ones, more useful. The HP learners' stronger preference for group work and class discussion suggests that they were comfortable enough to be able to speak up in front of peers and the teacher and exchange opinions with them, whereas LP learners might still feel uneasy about becoming involved in such activities. As Krashen (2003) argues, anxiety and self-doubt could raise the affective filter and impede the processing of language input. One LP and one HP learner at the interview complained that their peers sometimes switched from English to Japanese. In a large class of 20 to 25 students, classroom management preventing such problems can be a significant challenge to the teacher. Listening to the teacher was also appreciated significantly more by HP learners than by LP learners. Since the teacher conducted instruction almost exclusively in the target language, the content was undoubtedly more readily comprehensible to the former than to the latter.

4 Conclusion

Let us now return to the pedagogical questions we asked at the beginning of the paper. *What kind of and level of reading passages should be used?* Globalization and the environment were found to be popular themes. The passages with high discipline specificity, such as historical speeches and academic articles, should be handled with caution. When specificity is high, it may be advisable to choose material whose language level is relatively easy. Materials with both high discipline specificity and a high language level can be too challenging and therefore become

demotivating to learners. *What pre-reading, post-reading, and vocabulary tasks should be incorporated?* Since learners come across a number of technical terms in disciplinary-based reading, the appropriate use of vocabulary strategies is vital to them. Reading L2 definitions of key words and phrases was found to be the most appreciated task. In the classroom, where the medium of instruction is given solely in English, a bilingual glossary may not be necessary. Pre-reading tasks to provide background information and to activate schemata can facilitate reading comprehension. Post-reading comprehension tasks should be incorporated to confirm learners' appropriate understanding of the text. *What types of activities should be encouraged in the classroom?* Although learner-centredness is an important concept, learners, particularly LP learners, put a higher value on the teacher's explanations than more independence-orientated pair or group activities. Group work and class discussion can be more beneficial to HP learners whose English proficiency is sufficiently high enough to amply benefit from the opportunity. The transition from traditional teacher-centredness to learner-centredness should be introduced gradually to LP learners: for example, pre-discussion activities such as practising useful expressions for persuasion and brainstorming and organising their opinions on a sheet of paper may be helpful.

Although this action research is not free from shortcomings in its limited data of an exploratory nature, it has led to a number of important and useful pedagogical implications. What is needed next is an examination of pre- and post-course L2 proficiency scores and a consideration of their relationship with survey-based perception data. Another direction for future research would be to examine ways of quantifying discipline specificity by discourse analysis, so that texts with appropriate specificity can be introduced into the classroom.

References

Anderson, R. C., & Pearson, P. D. (1984). A schema-theoretic view of the basic processes in reading comprehension. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 255-291). New York: Longman.

Basturkmen, H. (2006). *Ideas and options in English for specific purposes.* NJ: Lawrence Erlbaum Associates, Inc.

Baxter, J. (1980). The Dictionary and Vocabulary Behaviour: a single word or a handful? *TEFL Quarterly, 14*, 325-336.

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

Chambers, F. (1980). A re-evaluation of needs analysis in ESP. *English for Specific Purposes Journal, 1*(1), 25-33.

Chen, H. C., & Graves, M. F. (1995). Effects of previewing and providing background knowledge on Taiwanese college students' comprehension of American short stories. *TESOL Quarterly, 29*, 663-684.

Clapham, C. (2001). Discipline specificity and EAP. In J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for Academic Purposes* (pp.

84-100), Cambridge: Cambridge University Press.

Clark, M. K., & Ishida, S. (2005). Vocabulary knowledge differences between placed and promoted EAP students. *Journal of English for Academic Purposes, 4*, 225-238.

Cohen, J. (1988). *Statistical power and analysis for the behavioral sciences (2nd ed.).* Hillsdale, NJ: Lawrence Erlbaum Associates.

Corder, P. (1983). The role for the mother tongue. In S. M. Gass & L. Selinker (Eds.), *Language transfer in language learning.* Rowley, MA: Newbury House.

Coxhead, A. (1998). *An academic word list.* ELI Occasional Publication No.18, Victoria University of Wellington, New Zealand.

Coxhead, A., & Nation, P. (2001). The specialized vocabulary of English for academic purposes. In J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for Academic Purposes* (pp. 252-267), Cambridge: Cambridge University Press.

English Education Section, Faculty of Political Science and Economics, Waseda University. (2008). *World views: English for political science and economics.* Tokyo: Waseda University Press.

Evans, S., & Green, C. (2007). Why EAP is necessary: A survey of Hong Kong tertiary students. *Journal of English for Academic Purposes, 6*, 3-17.

Flowerdew, J., & Peacock, M. (2001). Issues in EAP: A preliminary perspective. In J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for Academic Purposes* (pp. 8-24), Cambridge: Cambridge University Press.

Fransson, A. (1984). Cramming or understanding? Effects of intrinsic and extrinsic motivation on approach to learning and test performance. In J. C. Alderson & A. Urquhart (Eds.), *Reading in a foreign language* (pp. 86-121), London: Longman.

Harmer, J. (2001). Coursebooks: A human, cultural and linguistic disaster? *Modern English Teacher, 10*(3), 5-10.

Harwood, N. (2005). What do we want EAP teaching materials for? *Journal of English for Academic Purposes, 4*, 149-161.

Hirvela, A. (2001). Incorporating reading into EAP writing courses. In J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for Academic Purposes* (pp. 330-346), Cambridge: Cambridge University Press.

Huang, S., Cheng, Y., & Chern, C. (2006). Pre-reading materials from subject matter texts – learner choices and the underlying learner characteristics. *Journal of English for Academic Purposes, 5*, 193-206.

Hudson, T. (1991). A content comprehension approach to reading English for science and technology. *Teaching English to Speakers of Other Languages Quarterly, 25*(1), 77-104.

Jones, G. M. (1990). ESP textbooks: Do they really exist? *English for Specific Purposes, 9*, 89-93.

Jordan, R. R. (1997). *English for academic purposes: A guide and resource book for teachers.* Cambridge: Cambridge University Press.

Kasper, L. F. (1995a). Discipline-oriented ESL reading instruction. *Teaching English in the Two-Year College*, *22*, 45-53.

Kasper, L. F. (1995b). Theory and practice in content-based ESL reading instruction. *English for Specific Purposes, 14*(3), 223-230.

Kasper, L. F. (1997). The impact of content-based instructional programs on the academic progress of ESL students. *English for Specific Purposes, 16*(4), 309-320.

Krashen, S. (1982). *Principles and practice in second language acquisition.* Oxford: Pergamon.

Krashen, S. (2003). *Explorations in language acquisition and use*. Portsmouth: Heinemann.

Laufer, B. (1992). How much lexis is necessary for reading comprehension? In P. J. Arnaud & H. Bejoint (Eds.), *Vocabulary and applied linguistics* (pp. 126-132). London: Macmillan.

Laufer, B. (1997). The lexical plight in second language reading: words you don't know, words you think you know, and words you can't guess. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 20-34). Cambridge: Cambridge University Press.

Lipp, E., & Wheeler, J. P. (1991). Sustaining the interest of academically oriented ESP students. *TESOL Quarterly, 25*, 185-189.

Long, M, H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Richie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). San Diego: Academic Press.

Manzo, A. V., Manzo, U. C., & Estes, T. H. (2001). *Content area literacy: Interactive teaching for active learning.* New York: Wiley.

Mazdayasna, G., & Tahririan, M. H. (2008). Developing a profile of the ESP needs of Iranian students: The case of students of nursing and midwifery. *Journal of English for Academic Purposes, 7*, 277-289.

McWilliams, W. C., & Piotrowski, H. (2005). *The World since 1945: A history of international relations (6th ed.).* Boulder, CO: Lynne Rinner Publishers, Inc.

Nakamura, T. (2002). *Vocabulary learning strategies: the case of Japanese learners of English*. Kyoto: Kouyou Shobou.

Ringbom, H. (1987). *The role of the first language in foreign language learning.* Clevedon, Philadelphia: Multilingual Matters.

Snow, M. A., & Brinton, D. M. (1997). *The content based classroom.* White Plains, NY: Longman.

Strevens, P. (1988). ESP after twenty years: A re-appraisal. In M. Tickoo (Ed.), *ESP: state of the art* (pp. 1-13). Singapore: SEAMEO Regional Language Centre.

Swales, J. M. (1995). The role of the textbook in EAP writing research. *English for Specific Purposes*, *14*, 3-18.

Uchida, E. (2001). Dictionary evaluation and instruction for Japanese learners of English. *The Bulletin of Nippon Veterinary and Animal Science University, 50*, 70-82. Nippon Veterinary and Animal Science University, Japan.

Woodward-Kron, R. (2008). More than just jargon – the nature and role of specialist language in learning disciplinary knowledge. *Journal of English for Academic Purposes, 7*, 234-249.

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Appendix A. Cross-tabulations between Learners' Perception of Easiness/ Difficulty of Reading Texts and the Interest Aroused by L2 Proficiency

Table 10. Cross-tabulation between the Easiest Unit and the Most Interesting Unit by LP Learners

		Easiest Unit										Total
	Unit	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	
Most Interesting Unit	*1*	13	1	0	9	2	0	0	0	0	1	26
	2	10	8	1	4	2	1	1	1	1	0	29
	3	18	3	2	9	5	2	2	0	3	1	45
	4	9	4	0	0	7	0	1	0	0	0	21
	5	8	3	0	2	1	0	0	0	1	1	16
	6	7	3	0	2	1	0	0	0	1	1	15
	7	9	2	0	1	2	0	3	0	1	0	18
	8	1	1	0	0	0	0	0	0	1	0	3
	9	10	1	1	2	0	0	0	0	7	0	21
	10	8	1	0	1	4	0	0	0	4	1	19
Total		93	27	4	30	24	3	7	1	19	5	213

Table 11. Cross-tabulation between the Most Difficult Unit and the Least Interesting Unit by LP Learners

		Most Difficult Unit										Total
	Unit	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	
Least Interesting Unit	*1*	0	2	7	1	4	6	6	0	0	0	26
	2	2	6	23	0	1	8	2	2	1	1	46
	3	0	3	30	1	2	3	2	4	0	1	46
	4	0	3	5	3	5	2	1	1	2	2	24
	5	0	2	9	0	1	1	5	4	2	1	25
	6	0	0	3	0	1	10	1	1	1	1	18
	7	0	1	1	0	1	1	2	1	0	0	7
	8	0	0	5	0	0	4	0	11	1	1	22
	9	0	1	5	0	0	2	2	0	2	0	12
	10	0	0	0	0	0	0	0	0	0	1	1
Total		2	18	88	5	15	37	21	24	9	8	227

Table 12. Cross-tabulation between the Easiest Unit and the Most Interesting Unit by HP Learners

		Easiest Unit										Total
	Unit	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	
Most Interesting Unit	*6*	2	8	3	6	4	0	0	1	0	0	24
	7	3	9	0	4	4	0	2	0	0	0	22
	8	3	2	3	1	0	0	0	0	0	0	9
	9	3	5	0	7	1	0	1	0	0	0	17
	10	3	7	2	10	3	0	3	0	1	0	29
	11	2	1	1	2	2	0	0	0	0	0	8
	12	5	2	1	1	1	0	2	0	0	0	12
	13	2	2	0	0	0	1	0	0	0	0	5
	14	1	0	0	0	1	1	1	0	0	0	4
	15	4	2	0	2	1	0	0	0	0	0	9
	Total	28	38	10	33	17	2	9	1	1	0	139

Table 13. Cross-tabulation between the Most Difficult Unit and the Least Interesting Unit by HP Learners

		Most Difficult Unit										Total
	Unit	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	
Least Interesting Unit	*6*	3	2	0	1	0	1	0	1	0	0	8
	7	1	1	2	0	1	5	1	2	0	0	13
	8	2	0	25	2	1	7	0	2	3	1	43
	9	1	0	4	0	1	1	1	6	3	0	17
	10	0	0	0	1	0	0	0	2	1	0	4
	11	0	0	2	0	0	10	0	6	4	1	23
	12	0	0	0	0	0	2	0	0	1	0	3
	13	0	1	0	1	0	0	0	7	2	3	14
	14	0	0	0	0	0	2	1	2	8	0	13
	15	0	0	0	1	0	1	0	1	2	1	6
	Total	7	4	33	6	3	29	3	29	24	6	144