## Japan Association for Language Teaching

### **Articles**

- 107 The Eiken Vocabulary Section: An Analysis and Recommendations for Change *Tsuyuki Miura & David Beglar*
- 130 The Effect of Three Types of Written Feedback on Student Motivation *Peter M. Duppenthaler*
- 155 学習観がCALL教室における英語学習の成果に及 ぼす影響: クラスター分析を用いた学習者プロ ファイリング — 下山幸成, 磯田高道, 山森光陽 (Learner beliefs in language learning in the CALL environment – Yukinari Shimoyama, Takamichi Isoda, & Koyo Yamamori)
- 167 日本人大学生の外国語学習スタイルとKolbの Experiential Learning Theory - 藤田裕子 (Foreign language learning style of Japanese university students and Kolb's experiential learning theory - Yuko Fujita)
- 182 Representation of Users and Uses of English in Beginning Japanese EFL Textbooks *Aya Matsuda*

## **Perspectives**

201 An Algorithmic Approach to Error Correction: Correcting Three Common Errors at Different Levels – *Alice Y. W. Chan, Becky S. C. Kwan, & David C. S. Li* 

### **Reviews**

- 217 Teachers' Voices 7: Teaching Vocabulary (Anne Burns & Helen de Silva Joyce [Eds.]) Reviewed by Keiko Sakui
- 219 Teaching and Researching Autonomy in Language Learning (Phil Benson) Reviewed by Mika Maruyama & Joseph Falout
- 221 Approaches and Methods in Language Teaching (Second Edition) (Jack C. Richards & Theodore S. Rodgers)

Reviewed by Thomas C. Anderson

223 *Historical Linguistics* (Herbert Schendl) Reviewed by Robert Kirkpatrick

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- 105 In This Issue
- 106 From the Editors

### **Articles**

- 107 The Eiken Vocabulary Section: An Analysis and Recommendations for Change *Tsuyuki Miura & David Beglar*
- 130 The Effect of Three Types of Written Feedback on Student Motivation *Peter M. Duppenthaler*
- 155 学習観がCALL教室における英語学習の成果に及ぼす影響:クラスター分析を用いた学習者プロファイリング 下山幸成, 磯田高道, 山森光陽 (Learner beliefs in language learning in the CALL environment Yukinari Shimoyama, Takamichi Isoda, & Koyo Yamamori)
- 167 日本人大学生の外国語学習スタイルとKolbのExperiential Learning Theory - 藤田裕子 (Foreign language learning style of Japanese university students and Kolb's experiential learning theory - Yuko Fujita)
- 182 Representation of Users and Uses of English in Beginning Japanese EFL Textbooks *Aya Matsuda*

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201 An Algorithmic Approach to Error Correction: Correcting Three Common Errors at Different Levels – Alice Y. W. Chan, Becky S. C. Kwan, & David C. S. Li

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  Reviewed by Thomas C. Anderson
- 223 *Historical Linguistics* (Herbert Schendl) Reviewed by Robert Kirkpatrick

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Japan Association for Language Teaching

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The Japan Association for Language Teaching (JALT) is a nonprofit professional organization dedicated to the improvement of language teaching and learning in Japan. It provides a forum for the exchange of new ideas and techniques and a means of keeping informed about developments in the rapidly changing field of second and foreign language education. Established in 1976, JALT serves an international membership of more than 3,500 language teachers. There are 40 JALT chapters in Japan, 14 Special Interest Groups (SIGs), one affiliate SIG, and two forming SIGs. JALT is the Japan affiliate of International TESOL (Teaching English to Speakers of Other Languages) and is a branch of IATEFL (International Association of Teachers of English as a Foreign Language).

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Urban Edge Building, 5F 1-37-9 Taito, Taito-ku, Tokyo 110-0016, Japan Tel: 03-3837-1630; Fax: 03-3837-1631; E-mail: jalt@gol.com

## In this Issue

### **Articles**

The main section of this issue contains five articles. **Tsuyuki Miura** and **David Beglar** analyze the vocabulary section of the Eiken and offer their recommendations for change. **Peter M. Duppenthaler** takes a look at the effects of three types of written feedback on student motivation. **Yukinari Shimoyama**, **Takamichi Isoda**, and **Koyo Yamamori** investigate learner beliefs in language learning in the CALL environment. **Yuko Fujita** focuses on the foreign language learning style of Japanese university students and Kolb's experiential learning theory. **Aya Matsuda** explores how the users and uses of English in beginning Japanese EFL textbooks are represented.

## **Perspectives**

Learner errors, some of which are developmental and others of which are the outcome of L1 transfer, can be effectively corrected. **Alice Y. W. Chan, Becky S. C. Kwan** and **David C. S. Li** offer an algorithmic approach to error correction. According to their experiences with this technique, learners can and do overcome even pervasive errors.

### **Reviews**

A teacher resource book on the teaching of vocabulary is reviewed by **Keiko Sakui** and a book on the teaching and researching of autonomy in language learning is reviewed by **Mika Maruyama** and **Joseph Falout**. **Thomas C. Anderson** examines an updated classic on approaches and methods; a broad map of historical linguistics is outlined by **Robert Kirkpatrick**.

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## From the Editors

After serving as Associate Editor and then as Editor of JALT Journal for nearly five years, Nicholas O. Jungheim has decided to pass the baton to Associate Editor Donna Tatsuki. The editors would like to thank members of the JALT Journal Editorial Advisory Board, additional reviewers, proofreaders and all other JALT volunteers who have helped make this editorial transition smooth. We appreciate the generous contribution of their time to help ensure the continued high quality of our publication.

### **Conference News**

AILA 2002 Congress Singapore, Applied Linguistics in the 21st Century: Opportunities for Innovation and Creativity. The 13th World Congress of Applied Linguistics will be held 16 - 21 December 2002 in Singapore at the Singapore International Convention and Exhibition Center. Presenters will include: Michael A.K. Halliday (University of Sydney, Australia), Shirley Brice Heath (Stanford University, USA), Claire Kramsch (University of California-Berkeley, USA), and Yoji Tanabe (Waseda University, Japan).

For more information, please visit: < http://www.aila2002.org/>.

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## **Articles**

# The *Eiken* Vocabulary Section<sup>1</sup>: An Analysis and Recommendations for Change

**Tsuyuki Miura** *Temple University Japan* **David Beglar** *Temple University Japan* 

Although the Eiken is one of the most widely taken English proficiency tests in Japan, little empirical research has been conducted on the test. In this study, the vocabulary sections of all levels of the Eiken administered from 1998 to 2000 were analyzed. There were five principal findings: (a) successive levels of the Eiken vocabulary section do not increase in difficulty in a smoothly graduated fashion, (b) some test forms appear more difficult than others, (c) item options from widely differing frequency levels are sometimes used on the same item, (d) the assumed vocabulary sizes of targeted examinees frequently bear little relation to the difficulty of the items included in the vocabulary section, and (e) the sentence stems in the vocabulary section and the reading passages impose a similar lexical load. A number of suggestions for addressing the shortcomings of the vocabulary section are proposed.

実用英語検定試験(英検)は、日本で最も広く受験されている英語熟達度判定テストの一つであるにもかかわらず、実証的調査はほとんどなされていないのが実情である。本稿では1998年から2000年の間に実施された英検全級の語彙問題分析を行い、結果として主に以下五点を挙げる。(a)各級間の難易度変化は均等ではない、(b)テストにより難易度に差がある、(c)一つの項目の選択肢に、頻度が大きく異なる語彙の使用が見られる場合がある、(d)実施者が想定する各級受験対象者の語彙力と、語彙問題における項目難易度は関連が薄い、(e)語彙問題の項目基幹部分と、長文読解問題の引用文は、語彙レベルにおいて近似している。さらに本稿では、語彙問題における問題点に対し、数多くの提案を掲げている。

ne of the most important English proficiency tests in Japan is the Jitsuyo Eigo Ginou Kentei Shiken (Eiken), which is developed and administered by the Nihon Eigo Kentei Kyokai (Eikyo). Nearly three million people took a version of the Eiken in 2001, and since the test's introduction in 1963, more than 61 million people have sat the exam. The Eiken, which is currently made up of seven different level-specific tests beginning with the fifth level and increasing in difficulty through pre-second, second, and pre-first to the first level, was characterized by MacGregor (1997) as being "highly respected in social, educational, and employment circles..." (p. 24) in Japan. This statement is supported by the fact that Eiken certification is accepted in lieu of sitting an entrance examination by some Japanese high schools, vocational schools, junior colleges, and universities, and passing particular levels of the test carries university credit in some institutions. In addition, more than one-third of the prefectures in Japan are currently using the *Eiken* as one way to determine the language proficiency of prospective English teachers (see www.eiken.or.jp for further details). Passing higher levels of the *Eiken* also enhances a person's chances to be hired and/or promoted in some companies.

Notwithstanding the Eiken's position of importance in Japan, there is a lack of published research that illuminates fundamental testing concerns such as reliability, validity, and test washback. Our investigation of Japanese and English-language educational and language testing journals uncovered surprisingly few investigations of the Eiken, and none directly related to the topic of this study. In an early study, Murakami (1972) guestioned the Eiken's reliability and the quality of some items. A quarter of a century later, an exploratory examination of a pre-second level form of the Eiken was reported by MacGregor (1997), who arrived at five main conclusions. First, the test content appeared to match the intended group of test takers (second and third year high school students), a feature that MacGregor characterized as the test's greatest strength. However, MacGregor's other comments were critical, and they were derived from a cluster of reasons. Foremost among them was the charge that there is reason for concern about the test's reliability and validity. An additional related issue materialized as a result of an item analysis that she conducted. Approximately half of the items on the test were found to have unacceptable item discrimination values (a measure of how well an item differentiates high and low scoring examinees), a factor that would directly contribute to the fairly low reliability coefficient she found for the test form she investigated. Fourth, the context provided for some

items was unclear and even occasionally illogical, another characteristic that can adversely affect test reliability and validity. Finally, MacGregor argued that *Eikyo* should provide published reports of studies on item construction, reliability, and validity, a common practice of large testing companies such as Educational Testing Service in the United States.

Despite the criticisms of MacGregor's study raised by Henry (1998), her work represents an important initial attempt to illuminate the major strengths and weaknesses of the *Eiken*. In contrast to MacGregor, who chose to examine overall test functioning of one level of the test, we will begin a more focused line of research by investigating the *Eiken* vocabulary section. Our primary purpose is to undertake a preliminary analysis of the vocabulary section of all levels of the *Eiken* in order to determine the types of words being tested and to make recommendations for improving that section.

We have chosen to focus on the vocabulary section for three reasons. First, unlike some sections of the Eiken, a vocabulary section is included on each level of the test. Thus, unlike some other areas, it is one tested at all proficiency levels. Second, a number of studies conducted in the past decade have highlighted the importance of lexical knowledge for aural language processing (Miller & Eimas, 1995; VanPatten, 1996), speech production (Altman, 1997; de Bot, 1992; Levelt, 1993), reading (de Bot, Paribakht, & Wesche, 1997; Durgunoglu, 1997), and writing (Engber, 1995; Laufer & Nation, 1995). Third, we believe that research on the vocabulary section in particular is needed. The first author's experience and her discussions with other Japanese who have taken several levels of the Eiken suggest that the difficulty of the vocabulary section does not increase in smoothly graduated steps. Instead, the informal consensus is that the vocabulary sections of the pre-first and first level tests present unusually severe challenges in comparison with both the vocabulary sections of other levels of the test and with other test sections. Finally, the perception that some editions of the test (same level but appearing at different times) are easier than others, contributes to the feeling that the tests are not entirely fair.

## The Importance of High Frequency and Academic Vocabulary

The notion that particular groups of words are of special importance has been largely inspired by corpus-based research undertaken in the past by researchers such as West (1953) and continued in the present in corpora such as Collins' COBUILD Bank of English Corpus (http://titania.cobuild.collins.co.uk/). Such corpora have consistently shown that

a small number of words account for a high percentage of the words met receptively and used productively. For instance, the 2,000 high frequency word families as represented by the headwords in West's (1953) *General Service List (GSL)* provide coverage of up to 75% of fiction texts (Hirsh, 1993), 90% of non-fiction texts (Hwang, 1989), and 80% of academic texts (Nation, 2001).

In addition, the 570 general academic word families included in the *Academic Word List* account for an average of about 10% of the running words in academic texts (Coxhead, 2000). Together, these approximately 2,600 word families (i.e., 2,000 high frequency and 570 academic word families) are crucial for academic success in English-language settings as shown by the fact that they accounted for 86% of the vocabulary in Coxhead's 3.5 million word academic corpus, and they constitute the majority of the 3,000 word families that are needed for learners to reach what Laufer (1992) has referred to as "the turning point of vocabulary size for reading comprehension" (p. 130).

In this study, the vocabulary appearing in the *Eiken* vocabulary section are compared with word lists of high frequency and academic vocabulary, the expected proficiencies of the targeted examinees, and the vocabulary on the reading comprehension section of the test. This analysis is an attempt to shed light on precisely what vocabulary is being tested on all levels of the *Eiken*, and the results should be instructive to the test's designers, teachers preparing students to take the *Eiken*, and the examinees themselves.

In addition to the general purpose stated above, we posed three specific research questions:

Research question 1: What is the lexical composition of the multiple-choice vocabulary options (i.e., the correct answer and three distractors) on each level of the *Eiken* in terms of high frequency, academic, and low frequency vocabulary? How consistent is the lexical composition from one administration to the next?

In order to answer these questions, we examined all of the correct answers and distractors of all *Eiken* vocabulary tests administered from 1998 to 2000. These original tests are available in a series of seven books titled *Eiken Zenmondaishu* (e.g., *Eiken*, 2001a, b & c).

Research question 2: To what degree are the results of the first research question in accord with the targeted profi-

ciencies of the examinees and the vocabulary size for each level that is suggested by *Eikyo*? How appropriate are the targeted proficiencies identified by *Eikyo*?

The purpose of these questions was to investigate whether the vocabulary items in each level of the *Eiken* are consistent with the targeted vocabulary sizes specified by *Eikyo* (2001) and *Monbu-kagaku-sho* (Ministry of Education, Culture, Sports, Science, and Technology), as specified in *Gakushu Shidou Youryou* [(Foreign language in secondary school:) The Course of Study] (*Monbu-kagaku-sho*, 2001).

Research question 3: How does the vocabulary of the item sentences (i.e., the stems and correct answer) in the vocabulary section compare with the vocabulary of the reading comprehension passages for each level?

The objective here was to compare the lexical load of the vocabulary section with that of the reading section. For this analysis, all levels of the *Eiken* administered in June 2000 were examined.

## Method The Range Program

All analyses were conducted with Range (Nation & Heatley, 1996), a PC program that is freely available at the University of Victoria at Wellington's web site (http://www.vuw.ac.nz/lals/). This software compares the words in a text or several texts with the words in three base lists and can be used to find the coverage of a text using preset word lists.

As noted above, Range detects and classifies three categories of words. The first is made up of the 1,000 most frequent words in English (3,126 types or 999 word families) and the second is comprised of the second 1,000 most frequent words (2,721 types or 986 families). The source of these words is *A General Service List of English Words* (West, 1953). Together these 1,985 word families constitute what is commonly referred to as the high frequency vocabulary of English.

The third category is made up of words not found among the high frequency words described above, but which frequently occur in upper secondary school and university textbooks across a wide range of academic subjects (2,540 types or 570 families). The source of these words is the *Academic Word List* (AWL) (Coxhead, 2000).

Range employs three types of units to count words. Tokens are tallied

by simply counting every word form in a spoken or written text. If the same word form occurs more than once, each occurrence is counted. Types are tallied by counting every unique word form only once. Additional occurrences are not counted. Let us look at one concrete example to help illustrate the idea. In the sentence, Scientists know that the volume of the moon is the same as the volume of the Pacific Ocean, there are 18 tokens (i.e., 18 words in the sentence) but only twelve types (i.e., twelve unique word forms). The final type of unit, word families, consists of a headword, its inflected forms, and its closely related derived forms. For example, know (headword), knows (inflected form), and unknown (closely related derived form) are all part of the same word family (Bauer & Nation, 1993). Although all three counts serve useful but distinct purposes, in this study we emphasized types because we were primarily interested in the occurrence of unique word forms. Finally, in addition to the three categories of words described above. Range indicates which words in a text are not covered by any of the above lists. Thus, a fourth category of low frequency vocabulary is automatically created by the program.

### The Eiken Vocabulary Test Section

As noted above, all levels of the *Eiken* include vocabulary items in the first section of the test. The same multiple-choice, minimal context format is used for all levels, but the number of items on each level varies (see Table 1).

Table 1: Items Included in the Analyses

Test level	# of items per test	# of items inspected	# of items deleted/test	Total # of items deleted	Total # of items analyzed
First	30	180	6-7	38	142
Pre-first	30	180	6-7	38	142
Second	25	150	15	90	60
Pre-second	25	150	13-15	86	64
Third	20	120	8-11	56	64
Fourth	20	120	7-11	61	59
Fifth	15	90	5-9	46	44

The following is one item from the first level test administered in June 2000:

After her pleasant first flight, the woman realized that her fear of flying had been ( ).

- 1. undaunted
- 2. unfounded
- 3. unabashed
- 4. unscathed

(Eiken, 2001a, p. 14)

Each test that we examined also included a number of items testing knowledge of English idioms and grammar. For instance, the following item from the pre-first level tests idiomatic knowledge:

The Internet stock's value grew ( ) soon after it was offered to the public. It rose 20% in one month.

- 1. out and about
- 2. by leaps and bounds
- 3. above and beyond
- 4. in bits and pieces

(Eiken, 2001b, p. 19)

A typical fourth level grammar item is:

George ( ) his friend in the park yesterday.

- 1. sees
- 2. will see
- 3. saw
- 4. seen

(Eiken, 2001c, p. 28)

Because it is not possible to analyze multi-word units such as phrasal verbs and idioms with Range, these items, as well as the items testing

grammatical knowledge, were eliminated from the data set by both researchers working in consultation. Table 1 summarizes the number of items deleted from the analysis and the number of items remaining after the deletions. For instance, at the first level, 180 items were inspected (6 test forms x 30 items/per form), and depending on the specific form, six or seven items were deleted. This resulted in 38 total deletions. The remaining 142 items were used in the analyses.

The remaining multiple-choice options in all six administrations of the *Eiken* from 1998 to 2000 were then entered into Microsoft Word 2000 (2000). The files were then saved in text format so that they could be read by Range. Data files for each level consisted of the four multiple-choice options for each question, including the correct answers (e.g., *unfounded* in the first example test item above) and the three distractors (e.g., *undaunted*, *unabashed* and *unscathed*) for each item. The data from the six test forms were entered into separate test files so that we could investigate differences between the test forms.

The second set of data that were collected was for the item sentences (stems) in the vocabulary section along with the correct options (incorrect options excluded). Items that were excluded in the previous analysis were also excluded here.

The third data set was made up of the reading passages from the first to the fourth levels of the *Eiken* administered in June 2000<sup>2</sup>. The passages were entered into Microsoft Word 2000, converted to text format and then submitted to Range.

### Results

## The Multiple-Choice Vocabulary Options

The initial analysis concerned the multiple-choice options in the vocabulary section. Columns 4 to 7 in Table 2 summarize the results of the Range analysis. It can be seen, for example, that of all the types appearing in the fifth level test forms under examination, 95, or 81.2%, appear on Range's list of the 1,000 most frequent words. In general, the amount of higher frequency vocabulary decreases and the amount of lower frequency vocabulary increases as the tests move from the easiest (fifth) level to the most difficult (first) level, at which point over 90% of the vocabulary options are low frequency words.

Table 2: Targeted Examinees, Assumed Vocabulary Sizes, and Coverage of the Multiple-choice Options in the Vocabulary Section

Test Level	Targeted Examinees	Targeted Size	First 1,000 Types (%)	Second 1,000 Types (%)	AWL Types (%)	Low Frequency Types (%)
First	Four-year college grads	10,000 -15,000	8 (1.4)	11 (1.9)	23 (4.1)	523 (92.6)
Pre-first	Two-year college grads	7,500	32 (5.7)	55 (9.7)	133 (23.4)	346 (61.1)
Second	HS seniors	5,100	77 (33.5)	64 (27.8)	58 (25.2)	31 (13.5)
Pre- second	HS first & second year	3,600	143 (61.1)	57 (24.3)	17 (7.3)	17 (7.3)
Third	JHS third year	2,100	167 (77.7)	39 (18.1)	3 (1.4)	6 (2.8)
Fourth	JHS second year	1,300	161 (81.3)	34 (17.2)	2 (1.0)	1 (0.5)
Fifth	JHS first year	600	95 (81.2)	20 (17.1)	0 (0.0)	2 (1.7)

Note. HS = High school; JHS = Junior high school.

Variation among the lexical profiles of different administrations of the same test level was also investigated. The results for the first, pre-first, and second level test forms are displayed in Table 3. The second column shows the six administrations of the highest three levels of the *Eiken* included in this study, and columns 3 through 6 show the four lexical categories reported by Range. As can be seen, different versions of the same level test are not entirely consistent. For instance, the profiles of the June 1998 and the October 2000 administrations of the pre-first level show considerable variation, particularly where the second 1,000 word frequency level (column 4) and low frequency words (column 6) are concerned

Table 3: Variation in the Lexical Distribution of Item Options on the First, Pre-first, and Second Level Test Forms

Test Level	Administration Date	First 1,000 Types (%)	Second 1,000 Types (%)	AWL Types (%)	Low frequency Types (%)
First	Oct. 2000	1 (1.1)	0 (0.0)	3 (3.2)	91 (95.8)
	June 2000	0 (0.0)	0 (0.0)	2 (2.1)	94 (97.9)
	Oct. 1999	0 (0.0)	0 (0.0)	2 (2.1)	94 (97.9)
	June 1999	2 (2.1)	4 (4.2)	5 (5.2)	85 (88.5)
	Oct. 1998	4 (4.3)	5 (5.4)	3 (3.3)	80 (87.0)
	June 1998	1 (1.1)	2 (2.2)	8 (8.7)	81 (88.0)
Pre-first	Oct. 2000	6 (6.3)	6 (6.3)	16 (16.7)	68 (70.8)
	June 2000	4 (4.2)	7 (7.3)	21 (21.9)	64 (66.7)
	Oct. 1999	3 (3.1)	10 (10.4)	23 (24.0)	60 (62.5)
	June 1999	5 (5.2)	8 (8.3)	23 (24.0)	60 (62.5)
	Oct. 1998	4 (4.3)	6 (6.5)	29 (31.5)	53 (57.6)
	June 1998	10 (10.9)	18 (19.6)	21 (22.8)	43 (46.7)
Second	Oct. 2000	15 (37.5)	17 (42.5)	3 (7.5)	5 (12.5)
	June 2000	16 (40.0)	13 (32.5)	10 (25.0)	1 (2.5)
	Oct. 1999	10 (25.0)	8 (20.0)	14 (35.0)	8 (20.0)
	June 1999	10 (25.0)	11 (27.5)	14 (35.0)	5 (12.5)
	Oct. 1998	15 (37.5)	7 (17.5)	15 (37.5)	3 (7.5)
	June 1998	15 (37.5)	9 (22.2)	7 (17.5)	9 (22.5)

# The Multiple-choice Vocabulary Options and their Relationship to the Examinees

The results pertaining to research question 2 are displayed in Table 2. The targeted examinees are shown in the second column, and the targeted vocabulary sizes of the examinees are shown in the third column. These can be compared to the lexical composition of the different test levels. For instance, at the fourth level, second year junior high school students are expected to have a vocabulary of approximately 1,300 words. The test options match this target well as they are taken primarily from the first and second 1,000 most frequent words of English.

# A Comparison of the Vocabulary and Reading Comprehension Sections

Our final research question concerned the degree of consistency between the vocabulary and reading comprehension sections of the *Eiken*. The results are shown in Table 4.

Table 4: Coverage of the Vocabulary Section Options, Vocabulary Item Sentences and Reading Section Passages

Test Level	Word List	Options: Types (%)	Sentence Stems: Types (%)	Reading Passages: Types (%)
First	1st 1,000	8 (1.4)	182 (58.5)	526 (51.4)
	2nd 1,000	11 (1.9)	39 (12.5)	112 (10.9)
	AWL	23 (4.1)	28 (9.0)	141 (13.8)
	Low Frequency	523 (92.6)	62 (19.9)	244 (23.9)
Pre-first	1st 1,000	32 (5.7)	172 (62.3)	385 (54.3)
	2nd 1,000	55 (9.7)	33 (12.0)	81 (11.4)
	AWL	133 (23.4)	22 (8.0)	80 (11.3)
	Low Frequency	125 (61.1)	49 (17.8)	163 (23.0)
Second	1st 1,000	77 (33.5)	107 (79.3)	311 (73.0)
	2nd 1,000	64 (27.8)	14 (10.4)	38 (8.9)
	AWL	58 (25.2)	4 (3.0)	29 (6.8)
	Low Frequency	31 (13.5)	10 (7.4)	48 (11.3)
Pre-second	1st 1,000	143 (61.1)	106 (80.9)	252 (78.5)
	2nd 1,000	57 (24.3)	11 (8.4)	21 (6.5)
	AWL	17 (7.3)	2 (1.5)	9 (2.8)
	Low Frequency	17 (7.3)	12 (9.2)	39 (12.1)
Third	1st 1,000	167 (77.7)	113 (75.3)	184 (82.9)
	2nd 1,000	39 (18.1)	15 (10.0)	20 (9.0)
	AWL	3 (1.4)	1 (0.7)	0 (0.0)
	Low Frequency	6 (2.8)	21 (14.0)	18 (8.1)
Fourth	1st 1,000	161 (81.3)	75 (81.5)	136 (86.1)
	2nd 1,000	34 (17.2)	7 (7.6)	10 (6.3)
	AWL	2 (1.0)	0 (0.0)	1 (0.6)
	Low Frequency	1 (0.5)	10 (10.9)	11 (7.0)

Item options for all test levels are shown in the third column. A comparison of the percentages found under Sentence Stems % (column 4) and Reading Passages % (column 5) shows that they are relatively close to each other throughout all test levels and for all word categories. In the first through pre-second levels, the sentences have a slightly greater proportion of high frequency vocabulary. This situation is reversed on the third and fourth levels where the vocabulary in the reading section appears to be slightly easier.

### Discussion

### The Multiple-choice Vocabulary Options

Five main points are deserving of comment. First, the degree of difficulty of the first level vocabulary section is now clear. More than 90% of the item options at the first level are low frequency words. Although low frequency words should be tested at this level, the gap in difficulty between the pre-first and first levels is quite large, as can be seen by the increase (61.1% to 92.6%) in low frequency vocabulary (Table 2).

Second, the largest jump in difficulty occurs between the second and pre-first levels. At the second level, high frequency vocabulary accounts for 61.3% of the distractors and low frequency vocabulary only 13.5%. However, when we move to the pre-first level, these numbers are effectively reversed: high frequency vocabulary has fallen to 15.4% and low frequency vocabulary has risen sharply to 61.1%. This sudden shift validates the subjective experience voiced by many Japanese examinees: The pre-first and first level vocabulary sections are far more difficult than the vocabulary found at other levels of the test.

Third, despite the fact that the first level is a test of low frequency vocabulary and the pre-first level a test of low frequency and academic vocabulary, high frequency words account for 3.3% (1.4% + 1.9%) of the options in the first level and 15.4% (5.7% + 9.7%) in the pre-first level. It is inappropriate to include such options on the highest two levels of the test. In order to illustrate the reason for this, let us look at one example from a pre-first level test administered October 18, 1998.

The politician got upset when he found his views had been ( ) by the journalist's misleading article.

- 1 adopted
- 2 distorted

- 3 implied
- 4 proclaimed

(Eiken, 2001b, p. 106)

Because of the frequency-sensitive nature of second language vocabulary acquisition, the higher the frequency level of a particular word, the higher the probability it is known.<sup>3</sup> In the above item, option 1 (*adopted*) is one of the most frequent 1,000 words of English, options 2 (*distorted*) and 3 (*implied*) are part of the AWL, and option 4 (*proclaimed*) is a low frequency item. This mixing of words from very different frequency levels increases the likelihood that a relatively high frequency option such as *adopted* will not function effectively as a distractor in the presence of lower frequency vocabulary because many examinees will be able to eliminate it relatively easily, or, if it is the correct option, choose it with little difficulty (see Haladyna, 1994 for an extensive review of multiple-choice item functioning and distractor analysis).

The fourth point concerns the similarity of the lexical profiles of the third, fourth, and fifth levels. Although each of these levels is appropriately focused on high frequency vocabulary, the lack of a shift in emphasis from the first to the second 1,000 word families suggests that there is no significant change in difficulty from one level to the next given the well-known influence of word frequency on lexical acquisition. We investigated this possibility more closely by randomly selecting 25 words each from the third, fourth, and fifth level vocabulary options and checking the precise frequency of those words with the Carroll, Davies, and Richman (1971) word frequency list. The fifth level test form was essentially a test of the 500 most frequent words of English and, as such, was easier than the third and fourth level tests. However, the composition of the third and fourth level tests was extremely similar in terms of word frequency. In addition, when all of the third and fourth level options were compared, it was found that 22.8% (38 out of 167 types) were included on both test levels. This degree of overlap is troubling on tests that are purported to be aimed at different proficiency groups.

Fifth, the major difference at the first level concerns a change made by *Eikyo* between the June and October 1999 administrations. As shown in Table 3, the 1998 and June 1999 administrations display consistent profiles, but the test writers appear to have made the test more difficult beginning with the October 1999 administration, at which time the test becomes almost entirely composed of low frequency vocabulary.

Inconsistencies also appear in the pre-first and second level test forms. For instance, the June 1998 pre-first level test appears to be considerably easier than the October 2000 administration based on the amount of low frequency vocabulary tested on each form—46.7% versus 70.8%. Furthermore, 80% (37.5% + 42.5%) of the vocabulary on the October 2000 second level test form is made up of high frequency vocabulary whereas the same vocabulary levels comprise only 60% of the June 1998 second level form.

# The Multiple-choice Vocabulary Options and their Relationship to the Examinees

Our second research question concerned the targeted examinees, their assumed vocabulary sizes, the degree to which the *Eiken* vocabulary section is in accord with the assumed sizes, and the appropriateness of those assumptions. Table 2 shows the targeted examinees by educational level (column 2) and their assumed vocabulary sizes (column 3) as stated by *Eikyo* (2001). Vocabulary size is assumed to increase as grade level rises.

Let us first turn to the question of the degree to which the *Eiken* vocabulary sections are in accord with the target vocabulary sizes shown in Table 2. Answering this question is not entirely straightforward for two reasons. First, we do not know which words *Eikyo* counts as the targeted vocabulary because they do not disclose the word list(s) that they are using. Secondly, although *Eikyo* does not publicly disclose how it counts words, an *Eikyo* representative informed us that the test makers count words "like in a dictionary" (anonymous *Eikyo* representative, personal communication, February 24, 2002). This suggests that *Eikyo* may be counting words in a manner that is similar to our focus on word types. This is an important issue because word counts change significantly depending on what counts as a word. For instance, the first 1,000 high frequency words of English can be counted as 3,126 types or 999 word families.

Because of the large number of interrelationships between the cells in Table 2, we will highlight only a few of the more important points by focusing on the third column (targeted size) and the four columns that show the word type breakdowns for the four types of vocabulary (columns 4 to 7). *Eikyo* assumes that examinees taking the second level of the *Eiken* have a receptive vocabulary of approximately 5,100 words. However, if this is the case, it makes little sense to test the high frequency

words of English, and our data show that high frequency words account for approximately 60% (33.5% + 27.8%) of the words tested at the second level.

A second example of an apparent mismatch can be found at the presecond level, for which *Eikyo* has stated that examinees should have a receptive vocabulary of approximately 3,600 words. Although *Eikyo* probably intends this figure to be an approximation, it is puzzling that 61.1% of the vocabulary options that we sampled from six different presecond level tests were chosen from the first 1,000 words of English. These words should present no challenge to a learner with anything approaching a 3,600-word vocabulary.

One final example concerns the fifth through third levels. In spite of the fact that, as noted above, the examinees' vocabulary sizes are expected to increase from 600 words at the fifth level to 2,100 words at the third level, the actual data show that the three sections are made up of broadly similar items: The first 1,000 word level accounts for 81.2% of the words at the fifth level and 77.7% of the items at the third level. The second 1,000-word level accounts for 17.1% (fifth level) and 18.1% (third level) of the items. Thus, expected rises in examinees' receptive vocabularies are not mirrored by changes in the lexical profiles of the items on the test. In sum, we can only conclude that the items on the tests administered from 1998 to 2000 and the assumed vocabulary knowledge of examinees have at best a weak relationship with one another.

The second part of research question 2 asked about the appropriateness of the proposed vocabulary sizes shown in the third column of Table 2. For instance, is it reasonable to expect a third year junior high school student to have a 2,100-word receptive vocabulary? Although we have considerable unpublished data showing that this figure is quite high, there is little published research available to answer this question. However, we believe that the figures proposed in Table 2 are unrealistic in terms of the language acquisition of the average Japanese student. Barrow, Nakanishi, and Ishino (1999) reported that the Japanese learners in their study had receptive vocabularies of approximately 2,400 words on average after six years of formal English education. In other words, first year university students had vocabularies only slightly larger than the 2,100-word vocabulary proposed by *Eikyo* for third year junior high school students.

We can also analyze the appropriateness of the *Eiken* vocabulary section by comparing it with the vocabulary sizes that are endorsed by *Monbu-kagaku-sho*, as specified in *Gakushu Shidou Youryou* (*Monbu-*

kagaku-sho, 2001). In this document, Monbu-kagaku-sho suggests vocabulary learning goals for junior and senior high school students. These guidelines state that up to 900 words should selectively be taught during three years of junior high school, including basic vocabulary that relates to aspects of daily life such as seasons, months, days of the week, time, weather, ordinal and cardinal numbers, and the family. Furthermore, the Ministry sets a target of learning an additional 1,800 words for high school students. Thus, Japanese students are expected to learn approximately 2,700 words after six years of formal education. When we compare the Monbu-kagaku-sho's suggested vocabulary learning goals and the vocabulary test items on the Eiken test, it is difficult to identify a clear relationship between the two, a problem that is particularly acute at the higher levels of the Eiken.<sup>4</sup>

# A Comparison of the Vocabulary and Reading Comprehension Sections

As noted in the Results section, the percentages found under Sentence Stems % and Reading Passages % in Table 4 show broad similarities for all test levels and word categories. This is appropriate because both sections should be targeted on the same proficiency level. Large differences would suggest that at least one section is not appropriate for the targeted examinees.

Two additional findings appear in Table 4. First, the multiple-choice options (column 3) at the first and pre-first test levels are composed of more difficult vocabulary than the sentence stems (column 4) and reading passages (column 5). While low frequency vocabulary makes up 92.6% of the options at the first level, it comprises only 19.9% of the sentence stems and 23.9% of the reading passages. At the pre-first level, low-frequency vocabulary accounts for 61.1% of the options, 17.8 % of the sentence stems and 23% of the reading passages. Thus, the multiple-choice vocabulary options in the first and pre-first levels pose the greatest lexical challenge for test takers at those levels.

The second finding concerns the relationship between the options and sentence stems at the third and fourth levels. Some sentence stems appear to be made up of more difficult vocabulary than the options. For instance, at the third level, 14% of the word types in the sentences are low frequency vocabulary, whereas only 2.8% of the options are low frequency. As a result, the sentence stem, whose purpose is to provide context for choosing the correct option, may sometimes be less comprehensible than the options themselves, and examinees may miss an

item not because they lack knowledge of the targeted vocabulary, but because they did not understand the sentence context.

### Recommendations for Improving the Eiken Vocabulary Section

Our intention from the beginning of this study has been to investigate the *Eiken* vocabulary section, identify problematic areas, and make specific suggestions for improving the section. It is to this last goal that we now turn.

Our first finding was that the different levels of the *Eiken* vocabulary section do not increase in difficulty in a smoothly graduated fashion, and the difficulty levels of different test forms at the first, pre-first and second level are not consistent (see Table 3). The third and fourth levels show virtually no change and there are large gaps between the second and pre-first and the pre-first and first levels of the test (see Table 2). Although Eikyo has chosen this design based on "teachers' opinions and guidance from Monbu-kagaku-sho" (name withheld, personal communication, October 12, 2001), the result is an overall design that is at best clumsy and at worst ineffective. One way to remedy this problem would be to apply the following guidelines: (a) high frequency words should not be tested or included as distractors at the first, pre-first, and second levels, (b) the number of items sampled from the AWL should be increased at the pre-first, second, pre-second, and third levels, and (c) the first 1,000 words should be gradually deemphasized and the second 1,000 words gradually emphasized as the test moves from the fifth to the third level. Eikyo could implement this suggestion by utilizing software such as Range and by consulting multiple word frequency lists of written English when choosing words for inclusion on the tests. A second, and in our opinion, more elegant solution to this problem could be implemented through the proper use of item response theory (IRT). Although Eikyo informed us that they are using a form of IRT to analyze the tests (name withheld, personal communication, September 12, 2001), we see little evidence that they have taken advantage of the strengths of IRT. The Rasch model, which is a latent trait measurement model that places person ability and item difficulty on a single log linear scale, would permit Eikyo to produce vocabulary sections that sensitively measure lexical knowledge, avoid the gaps that we found at the higher levels of the test, equate test forms relatively easily, make shorter yet more reliable tests, and deliver the tests in a computer-adaptive format (see Bond & Fox, 2001 and Wright & Stone, 1979 for details regarding how these objectives can be achieved with the Rasch model). Using the Rasch

model and word frequency information to model reading development has been undertaken with considerable success in the United States by Lexile (www.lexile.com). This work could serve as a useful model for *Eikyo*.

Our second main finding concerned the use of multiple-choice options from widely varying frequency levels. We recommend that the four options for any single question be drawn from similar word frequency levels. As outlined earlier, the influence of word frequency effects is so pervasive that higher frequency distractors can be comprehended relatively easily and either eliminated or chosen as the correct option. By using options from similar frequency levels, the effectiveness of the distractors can be enhanced and the possibility of successful guessing minimized. This could best be implemented by consulting multiple word frequency lists when selecting vocabulary item options.

Our third major suggestion concerns our finding that the assumed vocabulary sizes of the targeted examinees frequently bear little relation to the difficulty of the items included in the vocabulary section. One clear example of the current mismatch can be found in the third level test. The assumed vocabulary size is 2,100 words, yet the third level vocabulary section is primarily testing the first 1,000 high frequency words of English. If *Eikyo* insists on using vocabulary size figures such as the ones reported in Table 2, then they should construct the different levels of their tests to more closely match those figures.

Fourth, we have criticized the proposed vocabulary sizes summarized in Table 2 as being largely divorced from reality. Our recommendation, which we direct at Eikyo, Monbu-kagaku-sho, and second language researchers in Japan, is that more empirical investigations of the lexical knowledge of Japanese learners at all levels of the formal education system are needed. When Eikyo suggests that specific levels of the Eiken are appropriate for learners in a particular grade in school, those figures and the amounts of lexical growth associated with them should be based on empirical studies that suggest what amount of lexical growth is challenging vet generally achievable. In this regard, we would like to pose three broad research questions to Eikvo and independent researchers suggested by the data in Table 2: (a) For what percentage of Japanese students are the vocabulary size figures accurate? (b) What rate of lexical growth do Japanese students show throughout their junior high school, senior high school, and university studies? (c) To what degree do published figures such as those shown in Table 2 influence Japanese learners? This last question concerns test washback and is related to our belief

that the vocabulary learning goals established by *Monbu-kagaku-sho* for junior and senior high school students are too low.

### A New Eiken? A New Eikyo?

Although we believe that the *Eiken* would be improved if the above suggestions were implemented, our recommendations may be analogous to repairing an old car: the repairs help, but what is really needed is a new car. What form might the "new *Eiken*" and the "new *Eikyo*" take? Our list of wishes is long, but we will discuss only three.

First, we would like to see *Eikyo* undertake a reconceptualizion of the entire vocabulary section based on what is currently known about text processing and the second language lexicon on one hand and item response theory (IRT) on the other. As with every other professional language testing organization, *Eikyo* must constantly strive to better understand the underlying construct that they wish to test. At a minimum, this would involve the careful study of recent theories of lexical knowledge and its interaction with text comprehension (e.g., Kintsch, 1998), the second language lexicon (e.g., Pavlenko, 1999), and vocabulary test validation (e.g., Perkins & Linville, 1987). The second base upon which a reconceptualized *Eiken* would rest is statistical theory. As stated earlier, the appropriate use of IRT would permit *Eikyo* to design, refine, and administer the vocabulary section more effectively and circumvent many of the problems we have pointed out.

Our second, and more radical suggestion, is that Eikyo should carry out detailed empirical investigations of test functioning that would reveal whether an independent vocabulary section is even needed. A number of studies conducted over the past three decades have consistently shown that vocabulary knowledge is the primary factor underlying reading comprehension. As a result, it may be redundant and therefore inefficient to include both reading comprehension and vocabulary sections on the test. Moreover, current approaches to language testing in general (Chapelle, 1998) and vocabulary testing in particular (Read & Chapelle, 2001) suggest that placing lexical items in rich contexts is the most valid way in which to test examinees' lexical knowledge. In addition, this testing format would overcome the negative washback associated with the vocabulary section of the Eiken. Books (e.g., the six volume Eiken Pass Tanjyukugo, 1998) and Internet sites (e.g., http:/ www19.big.or.jp/~hmnomura/eikenbbs2/eikenbbs2.cgi) dedicated to helping Japanese learners successfully pass the Eiken consistently

promote a heavily decontextualized approach to vocabulary learning despite the fact that studies on lexical acquisition (e.g., Prince, 1996) have shown that the overuse of decontextualized vocabulary study can result in learners who cannot break away from a reliance on translation, are unable to exploit the lexicon effectively for production, and have slow and effortful processing of L2 syntax and word identification.

Our final wish is that as a socially responsible corporation, Eikyo should be more forthcoming about test functioning. Validation studies need to be undertaken for every section of the Eiken, and the results of these studies published so that language testing professionals, teachers, and test takers can examine them in detail. In addition, a test booklet disclosing section and test reliabilities, intercorrelations among test sections, and other quantitative and qualitative data should be made publicly available. One of the best examples of this practice in the field of second language testing is Educational Testing Service, which has long published information about the functioning of the TOEFL test in articles written for the general public and technical research reports that disclose the results of detailed investigations into specific sections of the test (see www.toefl.org for general information and a large number of technical research reports available online). This is all the more important because independent studies (e.g., MacGregor, 1997 and this study) have arrived at the same general conclusion: the *Eiken* has potentially serious reliability and validity problems. In addition to the employees of Eikyo, a potentially large number of language testing professionals both inside and outside of Japan could lend their expertise to the development of improved tests.

### Conclusion

In this study we have made suggestions for improving the vocabulary section of the *Eiken* based on an analysis of the lexical categories of the item options, sentence stems and reading passages on all seven levels of the *Eiken* administered over a three year period. It is our hope that further studies on the *Eiken* will be undertaken both by independent researchers and by researchers working together with *Eikyo* in order to improve what is unarguably one of the most important proficiency tests in Japan. The Japanese students and adults who take future versions of the test deserve no less.

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*Tsuyuki Miura* is currently working towards a Master of Education degree at Temple University Japan's Osaka campus. Her primary interests are curriculum development and teaching methodology.

*David Beglar* is an Associate Professor at Temple University Japan. His research interests are vocabulary acquisition and language testing.

### **Notes**

- 1. We have called *Daimon 1* (section 1 of the written part) the vocabulary section because the majority of the items test knowledge of single words, two-word verbs, or idioms.
- 2. The fifth level of the *Eiken* does not have a reading test section.
- 3. Although a large number of factors, such as concreteness, phonological and orthographic regularity, part of speech and pronuncibility influence word difficulty, a considerable amount of research evidence from the field of language testing (e.g., Miller & Lee, 1993; Read, 1988; and Schmitt, Schmitt, & Clapham, 2001) and second language lexical acquisition (e.g., Kirsner, 1994 and Ellis, 1994, 2001) has shown that word frequency is the primary factor underlying lexical difficulty.
- 4. One reviewer raised the point that other factors, such as the role of cram schools, affect the lexical acquisition of Japanese learners. If *Eikyo* considers these factors, it is their responsibility to describe how such factors are accounted for and how they influence decisions about test construction.

### References

- Altman, R. (1997). Oral production of vocabulary. In J. Coady & T. Huckin (Eds.), Second language vocabulary acquisition (pp. 69-97). New York: Cambridge University Press.
- Barrow, J., Nakanishi, Y., & Ishino, H. (1999). Assessing Japanese college students' vocabulary knowledge with a self-checking familiarity survey. *System*, 27, 223-247.
- Bauer, L., & Nation, I. S. P. (1993). Word families. *International Journal of Lexicography*, 6, 253-279.
- Bond, T. G., & Fox, C. M. (2001). *Applying the Rasch model: Fundamental measurement in the human sciences*. Mahwah, NJ: Erlbaum.

Carroll, J. B., Davies, P., & Richman, B. (1971). *The American Heritage word frequency book*. New York: American Heritage.

- Chapelle, C. A. (1998). Construct definition and validity inquiry in SLA research. In L. F. Bachman & A. D. Cohen (Eds.), *Interfaces between second language acquisition and language testing research* (pp. 32-70). Cambridge: Cambridge University Press.
- Coxhead, A. (2000). An new academic word list. TESOL Quarterly, 34, 213-238.
- de Bot, K. (1992). A bilingual production model: Levelt's 'speaking' model adapted. *Applied Linguistics*, 13, 1-24.
- de Bot, K., Paribakht, T. S., & Wesche, M. B. (1997). Toward a lexical processing model for the study of second language vocabulary acquisition. *Studies in Second Language Acquisition*, 19, 309-329.
- Durgunoglu, A. Y. (1997). Bilingual reading: Its components, development, and other issues. In A. M. B. de Groot & J. F. Kroll (Eds.), *Tutorials in bilingualism* (pp. 255-276). Mahwah, NJ: Lawrence Erlbaum.
- Eiken (1998). Eiken Pass Tanjyukugo. Tokyo: Obunsha.
- Eiken (2001a). Eiken 1-kyu: Zenmondaishu. Tokyo: Obunsha.
- Eiken (2001b). Eiken jun-1-kyu: Zenmondaishu. Tokyo: Obunsha.
- Eiken (2001c). Eiken 4-kyu: Zenmondaishu. Tokyo: Obunsha.
- Eikyo (2001). Eikyo Home Page. Retrieved June 6, 2001, from: http://www.eiken.or.jp/
- Ellis, N. C. (1994). Vocabulary acquisition: The implicit ins and outs of explicit cognitive mediation. In N. C. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 211-282). San Diego, CA: Academic Press.
- Ellis, N. C. (2001). Memory for language. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 33-68). Cambridge: Cambridge University Press.
- Engber, C. A. (1995). The relationship of lexical proficiency to the quality of ESL compositions. *Journal of Second Language Writing*, 4, 139-155.
- Haladyna, T. M. (1994). *Developing and validating multiple-choice test items*. Hillsdale, NJ: Lawrence Erlbaum.
- Henry, N. (1998). The Eiken test: An investigation? JALT Journal, 20, 83-84.
- Hirsh, D. (1993). *The vocabulary demands and vocabulary learning opportunities in short novels*. Unpublished master's thesis, Victoria University of Wellington, New Zealand.
- Hwang, K. (1989). *Reading newspapers for the improvement of vocabulary and reading skills*. Unpublished master's thesis, Victoria University of Wellington, New Zealand.
- Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge: Cambridge University Press.
- Kirsner, K. (1994). Second language vocabulary learning: The role of implicit processes. In N. C. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 283-312). San Diego, CA: Academic Press.
- Laufer, B. (1992). How much lexis is necessary for reading comprehension? In P. J. L. Arnaud & H. Bejoint (Eds.), *Vocabulary and applied linguistics* (pp.

MIURA & BEGLAR 129

- 126-132). London: MacMillan.
- Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, 16, 307-322.
- Levelt, W. (1993). Language use in normal speakers and its disorders. In G. Blanken, E. Dittman, H. Grimm, J. Marshall, & C. Wallesch (Eds.), *Linguistic disorders and pathologies. An international handbook* (pp. 1-15). Berlin: de Gruyter.
- MacGregor, L. (1997). The Eiken test: An investigation. *JALT Journal*, 19, 24-42.
- Microsoft Word 2000 [computer software]. (2000). Seattle, WA: Microsoft.
- Miller, J. L., & Eimas, P. D. (1995). Speech perception: From signal to word. *Annual Review of Psychology*, 46, 467-492.
- Miller, L. T., & Lee, C. J. (1993). Construct validation of the Peabody Picture Vocabulary Test—revised: A structural equation model of the acquisition order of words. *Psychological Assessment*, 5, 438-441.
- Monbu-kagaku-sho (2001). *Gakushu shido youryou* [(Foreign language in secondary school:) The Course of Study]. Retrieved June 6, 2001, from: http://www.mext.go.jp/.
- Murakami, T. (1972). Eiken ha hyojyun test toshite datou ka [Is the Eiken a valid standardized test?]. *The English Teacher's Magazine*, 20, 41-43.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. New York NY: Cambridge University Press.
- Nation, I. S. P., Heatley, A. (1996). VocabProfile, Word, and Range: programs for processing text. [Computer software]. Wellington, NZ: LALS, Victoria University of Wellington.
- Pavlenko, A. (1999). New approaches to concepts in bilingual memory. *Bilingualism: Language and Cognition*, 2, 209-230.
- Perkins, K., & Linville, S. E. (1987). A construct definition study of a standardized ESL vocabulary test. *Language Testing*, 4, 125-141.
- Prince, P. (1996). Second language vocabulary learning: The role of context versus translations as a function of proficiency. *The Modern Language Journal*, 80, 478-493.
- Read, J. (1988). Measuring the vocabulary knowledge of second language learners. *RELC Journal*, 19, 12-25.
- Read, J., & Chapelle, C. A. (2001). A framework for second language vocabulary assessment. *Language Testing*, 18, 1-32.
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behavior of two new versions of the Vocabulary Levels Test. *Language Testing*, 18, 55-88.
- VanPatten, B. (1996). *Input processing and grammar instruction*. Norwood, NJ: Ablex. West, M. (1953). *A general service list of English words*. London: Longman.
- Wright, B. D., & Stone, M. H. (1979). Best test design: Rasch measurement. Chicago: Mesa Press.

# The Effect of Three Types of Written Feedback on Student Motivation

## Peter M. Duppenthaler

Tezukayama Gakuin University

This article reports on the effect of three types of written feedback on student motivation at a girls' private high school in Japan. It addresses the question of whether students who receive meaning-focused feedback show a greater degree of positive motivation than students who receive either positive comments or error-focused feedback. The only statistically significant difference among the three types of feedback was that the positive-comments group was significantly less eager to get their journals back each week than the meaning-focused feedback group. The overall findings of this study reconfirm the positive effect journal writing, regardless of feedback type, has on motivation. All three groups reported that they felt it had a positive effect on their English, and that it had been a worthwhile experience for them.

本論文は、日本の某私立女子高校を調査対象にして、英文日記の3通りの筆記によるフィードバック法を比較し、それらが生徒の<やる気>に及ぼす効果について報告したものである。日記の「内容に関するフィードバック」を受ける生徒が、「誉め言葉によるフィードバック」、あるいは英語の「誤謬訂正のフィードバック」を受けるものよりも、より<やる気>を引き起こされるものかどうかという点を検証した。3通りのフィードバックを比較して、統計数値上唯一有意差があったのは、「誉め言葉のフィードバック」を受けるグループは、「内容に関するフィードバック」を受けるグループに比べて、毎週の日記の返却(つまりフィードバックされること)にそれほど熱心ではなかったということである。ただ研究全般から再確認できることは、いかなるフィードバックであれ、英文日記を書くことは、英語学習に対する生徒の<やる気>に対してプラス効果を及ぼすということであり、それは3グループすべての生徒が、日記をつけることは自分たちの英語にプラス効果をもたらし、やりがいのあるものであったと報告していることに表れている。

Duppenthaler 131

he larger one-year study on which this article is based (see Duppenthaler, 2002) investigated the effect of three different types of feedback on the "improvement" of students' journal entries, the possibility of a transfer effect to in-class compositions, and possible influence on the strength of motivation. The present article is limited to the question of motivation (see Stern, 1983; Oxford, 1994; and Dörnyei, 2001 for overviews and general discussions of motivation). The research question was: Do students who receive meaning-focused feedback show a greater degree of positive motivation than students who receive either positive comments or error-focused feedback?

The three types of feedback provided in the students' journals were (a) meaning-focused feedback, in which I engaged in an ongoing and cumulative, interactive dialog with the participants, providing commentary on the content of each journal entry, suggesting future topics, and asking for additional information and clarification; (b) positive comments, in which I responded with phrases such as "well done," "keep up the good work" and "keep writing," and with occasional short positive comments on the content of a few scattered journal entries so that students would know, as in the case of the other two treatment groups, that I was reading their entries, but did not engage in an ongoing interactive dialog, or ask for additional information and clarification; and (c) error-focused feedback, in which I corrected all errors, in red ink, in the participants' journal entries with no revision required on the part of the participants.

A review of the literature indicated that several researchers (Leki, 1992; Holmes & Moulton, 1997) had voiced the opinion that meaning-focused feedback had a positive effect on motivation. Although some researchers (Semke, 1984; Robb, Ross, & Shortreed, 1986; Aly, 1992, Fazio, 2001) reported little positive value for error correction, many students seem to prefer it (see for example Cathcart & Olsen, 1976; Radecki & Swales, 1988; Harrison, 1993; Timson, Grow, & Matsuoka, 1999). It was therefore felt that error-focused feedback might be viewed positively by students, and thus might lead to increased motivation. Finally, it was felt that positive comments should be included as one of the treatment types because informal discussions with teachers in Japanese high schools who had used journals led me to believe that this was a common, if not the most common, type of feedback.

Although, in a general sense, meaning-focused feedback may seem to fit into the general feedback category of commentary, in which the teacher makes written comments or asks questions focused on either

grammatical errors, content, or the students' ideas, it is in fact a rather different thing in that it is not intended to be evaluative. "Commentary" in this case consists of exchanges in which the teacher is "a participant in an ongoing written conversation with the student, rather than an evaluator who corrects or comments on the students' writing" (Worthington, 1997, p. 3).

With regard to error correction, Radecki and Swales (1988), Cathcart and Olsen (1976), and Harrison (1993), all reported that students prefer teachers to correct all surface errors at least to the extent that it is possible. A survey by Timson, Grow, and Matsuoka (1999) to determine the error correction preferences of 1,228 Japanese, second language learners enrolled in various departments at nine universities in Japan found overwhelming agreement among their respondents that "error correction is necessary and desirable in order to increase second language fluency" (p. 145) and that "a majority of those surveyed desire to have their errors corrected" (p. 145).

There may be several possible explanations for the popularity of error correction among students. The main one may simply be that many teachers use this type of feedback. This may mean that students are used to it and therefore comfortable with it. It may also be seen as the type of feedback that requires the least effort on the students' part. After all, all students need to do to improve the original draft is to rewrite, copying the corrections that the teacher has already made for them, reducing their main task to one of reading the teacher's handwriting.

According to Staton (1988), the publication of two National Institute of Education reports, "Analysis of Dialogue Journal Writing as a Communicative Event," and "Dialogue Writing: Analysis of Student-Teachers Interactive Writing in the Learning of English as a Second Language," "stirred increased interest in the use of dialogue journals in the ESL community" (p. xi). However, even before this, the classroom use of journals was not all that uncommon. *The Journal Book* (1987), edited by Toby Fulwiler, a longtime proponent of using journals, contains 42 articles, by 42 different authors, all singing the praises of journal writing in teaching situations from elementary school through university, and in disciplines as varied as English poetry and experimental physics. The entire volume "is about journals, and their use in developing students' minds and selves" (Staton, 1987, p. 4). The authors in this collection frequently mention the positive effects on motivation that journals have.

An additional impetus for the use of journals as ESL/EFL language teaching tools was given by TESOL's (Teachers of English to Speakers of Other

Duppenthaler 133

Languages) publication of two books specifically dealing with journal writing, *Students and Teachers Writing Together: Perspectives on Journal Writing* (Peyton, 1990) and *Dialogue Journal Writing with Nonnative English Speakers: A Handbook for Teachers* (Peyton & Reed, 1990).

Over the years, journals have not only been used in language teaching classrooms throughout the world but have also been used in work with deaf children (Staton, 1985; Kluwin & Blumenthal, 1991), as a part of preservice teacher training programs (Brinton & Holten, 1988; Bacon, 1995), in multilingual classes (McFarland, 1992; Moulton & Holmes, 1994), with the learning-disabled (McGettigan, 1987; Gaustad & Messenheimer-Young, 1991), with gifted children (Armstrong 1994), through the media of computers and e-mail (McQuail, 1995; Yeoman, 1995), and as a means of enhancing communication and understanding in schools (Dana, 1993; Hanrahan, 1999). As Kirby, Liner, and Vinz (1988) note, "the journal is one of those phenomena of English teaching: an instant hit with teachers everywhere. It zoomed like a skyrocket through every cookbook and conference . . . it has been used and abused at one time or another by most English teachers" (p. 57).

The popularity of journals can also be seen as a natural extension of the Whole Language movement as outlined by Goodman (1986), which "rests upon the premise that language is more easily acquired when teaching and learning are all inclusive, contextualized and purposeful" (de Godev, 1994, p. 2), and by the work of Swain (1985, 1995) and others on input and output (see Woodfield, 1997; and Robinson, 1997 for more on input and output). In addition, Holmes and Moulton (1997) note the fairly commonly held view that "through responding to the content of students' writing and not correcting errors, teachers can...[control] affective variables that affect the writer's motivation" (p. 620) and report that their students believed that journal writing enhanced their motivation to write and increased their fluency.

There have been a number of studies carried out in Japan involving the use of journals (see for example Konoeda, 1997; Hirose & Sasaki, 2000). The nine articles in the collection of articles edited by Casanave (1993a) on the use of journals at the Shonan Fujisawa campus of Keio University and Keio High School are of particular relevance to this study. Not only do they deal with journal writing in Japan, but also several describe teacher-student dialogue journals. However, only one of the articles (Harrison, 1993) deals with the use of journals in a high school setting.

All of the authors in the collection are positively disposed toward the

use of journals even though, as many of them point out, they require a great deal of time and energy on the part of the teachers. Casanave is fairly representative when she writes, "In the Japan context, at least, journal writing may constitute the single most beneficial activity for the development of students' confidence and communicative ability in English" (p. 4).

Casanave (1993b) used written and oral data in both English and Japanese to investigate students' views on journal writing. The subjects consisted of four intact classes with 30 students in each class. The students engaged in journal writing during the course of one semester. At the end of the semester the students were asked to write a journal entry on their journal writing experience. They were not asked to respond to detailed questions, but simply to comment in any way they wished on what the experience of journal writing had been like for them. Casanave then used these final entries, along with interviews, as her data source. She found that the majority, but not all, of the students found the journal experience to be a positive one. "They believe that their English language and writing abilities improved, that they became more fluent writers (and in some cases, speakers), and that they developed personally and intellectually through the journal writing process" (p. 4).

Although researchers who have investigated the students' own opinions on what they think of the experience of journal writing, usually through interviews and questionnaires, generally report positive feelings toward the experience, there are always at least a few students who report that they do not like keeping journals (see for example Lucas, 1990, 1992; Casanave, 1993b; Holmes & Moulton, 1995; Skerritt, 1995).

It is interesting to note that both Holmes and Moulton (1995) and Casanave (1993b) mentioned that students who had more experience with the target language were the least comfortable with (i.e., the most negative about) journal writing. In the case of Holmes and Moulton, one student, Dang, the "reluctant participant" in the title of their article, had spent five years in the United States during which time he had graduated from an American high school. Holmes and Moulton note that if teachers bothered to ask, "they would probably find that there is a contrarian like Dang in every class" (p. 242).

Casanave (1993b) also reported that, "A handful of other students, particularly returnee students [i.e., returning to live in Japan after having lived abroad for a period of time] at the end of three semesters of English, remarked that they 'hated journal writing,' yet recognized that it benefited their English in a number of ways" (p. 100). It is interesting to

Duppenthaler 135

note that Radecki and Swales (1988), in their study of ESL students' reactions to written comments on their essays also found, through student questionnaires, that as students progress in their English language development they become less tolerant of their teachers' feedback and "more restricted [in] the role they generally assign to the English instructor" (p. 364). However, they go on to say that they had "little hard evidence of any relationship between the type of student respondent and the proficiency level in ESL writing" (p. 364). Skerritt (1995) found that students felt the experience worthwhile only if it allowed for personal reflection and if they were certain that the teacher was reading their entries.

The present study built on the existing body of research on journals in educational settings. It extended it in four ways: (a) by using journals as a means of delivering different types of feedback, (b) by carrying it out in a new environment (i.e., a Japanese girls' high school), (c) by using a relatively large sample size of 99 students, and (d) by providing treatment over an entire academic year.

### Methods

Site

The school at which this study was carried out is a girls' high school of mid-sized enrollment in the Kansai area. The general emphasis of the English program at the school is almost equally divided between the four skills of reading, writing, speaking, and listening, but with a slightly heavier emphasis on reading and writing. English is a required subject at the school from junior high school through high school. It is a fairly typical Japanese high school in that the teachers consider their main job to be the preparation of students for college entrance exams. Even though, due to the decline in the birth rate, there are now more places at colleges and universities than applicants, there is still competition to enter topranking institutions of higher learning; any high school whose students can enter such schools will have fewer problems in attracting potential students and thus a greater chance of survival. This opinion seems to be fairly common among Japanese high school teachers whether they are working at public or private high schools.

## Participants

Second-year students at the school are divided into five levels based on their performance during their first year of high school: one higher-level class, one middle-level class, and three lower-level classes.

The students in the three lower-level classes are assigned to individual classes on the basis of alphabetical order. The 99 participants in this study consisted of the students in the three lower-level classes. Secondvear students were selected for a number of reasons. First, the teachers felt that second-year students had enough English and time to write a journal in English. In fact, they felt that this was the only year that it was possible for the students to do it--first-year students were either too busy getting used to school or did not have enough English to be able to write a journal in English, and third-year students were either too busy preparing for entrance exams or under too much pressure worrying about taking them. Second, the lower-level students were selected because they constituted the largest group of students at one ability level. Third, the teachers were less willing to involve higher-level students in anything that might "distract" them from their main task of preparing for college entrance exams. Finally, it was assumed that motivation would be less of a problem for higher-level student and that any increase in motivation might have a greater positive effect on lower-level students.

### Materials

## Bilingual Pretreatment Questionnaire

A bilingual pretreatment questionnaire was developed by the author in consultation with the Japanese English teachers at the school and an American consultant with several years of teaching experience at a Japanese high school in Japan. The final version (see first 10 questions in Appendix 1) consisted of ten questions designed to determine the students' language history (i.e., familiarity with and exposure to English outside of their regular classes). It was used to check for any pretreatment differences among the three groups.

## Bilingual Posttreatment Questionnaire

A bilingual posttreatment questionnaire (see Appendix 1) was also developed by the author in consultation with the group mentioned above. The final version consisted of 20 questions. The first ten questions were exactly the same as those in the pretreatment questionnaire and were used to check for any differences among treatment groups that might have occurred during the year. Questions 11 through 20 were designed to find out how the students had felt about keeping a journal, and to see if the experience had resulted in any motivational differences among the three groups.

Duppenthaler 137

The posttreatment questionnaire was given at the end of the academic year. No significant differences were found among the three treatment groups with regard to their degree of extracurricular exposure to English prior to the study (i.e., the first ten questions). An examination of the raw data showing how many students selected each option indicated that the numbers had remained almost exactly the same as in the case of the pretreatment questionnaire. In other words, there had been no changes with regard to extracurricular English activities during the course of the year.

Ouestions 11 through 20, which did not appear in the Pretreatment Questionnaire, were designed to determine (a) the degree of either positive or negative feelings the students had toward writing in their journals and (b) whether they felt the experience had been a positive one irrespective of how they had felt about having to do the writing or about putting in the time and effort. A 5-point Likert scale was used for each question (1 = strongly agree, 2 = agree, 3 = neither agree nor disagree,  $\hat{4}$  = disagree, 5 = strongly disagree). Question 20 was designed to elicit a written response in English. All of the students wrote comments. I coded these using the same 5-point Likert scale used for the other questions so that the question could be included in the statistical analysis with the other questions. In this case, students who wrote that they liked English more than before were given a four or a five depending on the strength of their response. Students who wrote that their attitude had not changed were given a three. Those who wrote that it had had a negative influence were given a one or a two depending on the strength of their response.

#### Procedures

In order to avoid the problem of group differences—always a possibility with intact classes—the students were blocked into three treatment (i.e., feedback) groups, according to their scores on a 40-item, multiple-choice cloze test, during the first week of school (Group 1, meaning-focused; Group 2, positive comments; Group 3, error-focused). The split-half adjusted reliability for the cloze test was .82. As mentioned before, all second-year students are divided into five classes based on their performance during their first year of high school. The students in the three lower-level classes (i.e., those who took part in this study) are then assigned to their three respective classes on the basis of alphabetical order. These students are therefore a rather homogeneous group of individuals. Reliability can be depressed by a number of

different factors: a small number of items in the test, setting, time span, history, and the homogeneity of the group being tested. As noted by Ary, Jacobs, and Razavieh, (1990), "The reliability coefficient increases as the spread, or heterogeneity, of the subjects who take the test increases. Conversely, the more homogeneous the group is with respect to the trait being measured, the lower will be the reliability coefficient" (p. 280). Given the extreme likelihood of this being a rather homogeneous group, it was felt that the level of reliability was acceptable for blocking purposes. Students were blocked into three groups consisting of exactly 33 students per group (for more on block design see Kirk, 1995).

The result of this procedure was that each treatment group was made up of a similar proportion of students who were enrolled in classes which were taught by each of the teachers who taught the second-year students (i.e., students were blocked both by ability and across class lines). I was therefore, able to control for course content, possible initial ability level differences among the students, and teacher and instructional differences that might have occurred during the students' regular course of study. In addition, several other procedures were carried out in order to ensure that there were no significant differences among the groups prior to treatment.

During the second week of school, the participants filled in the bilingual pretreatment questionnaire. An analysis of the questionnaire indicated that there were no significant differences among the three treatment groups. Because questions 1, 4, 5, and 9 were Yes/No questions they were coded using "one" for yes and "zero" for no. The dichotomous nature of these questions meant that logistic regression, rather than ANOVA or Linear Regression, was the preferred method of analysis. This was because unlike ANOVA and Regression, in which the dependent variable should be continuous, "Logistic [Regression] is relatively free of restrictions, and with the capacity to analyze a mix of all types of predictors (continuous, discrete, and dichotomous)" (Tabachnick & Fidell, 1996, p. 578). In this type of analysis, if the chi-square is small, "then one concludes that the two variables are independent; a poor fit leads to a large chi-square . . . and the conclusion that the two variables are related" (Tabachnick & Fidell, 1996, p. 56). Logistic regression for questions 1, 4, 5, and 9 in the Pretreatment Questionnaire showed small chi-square and p values, which indicated that there were no significant differences among the three groups.

Pretreatment Questionnaire questions 2, 3, 6, 7, 8, and 10 were on a scale, which meant that a multivariate analysis of variance (MANOVA),

Duppenthaler 139

rather than ANOVA, was the preferred method of analysis because the research design included more than one dependent variable. Like ANOVA, MANOVA is a statistical procedure for testing whether the difference among the means of two or more groups is significant. However,

MANOVA has a number of advantages over ANOVA. First, by measuring several DVs [Dependent Variables] instead of only one, the researcher improves the chance of discovering what it is that changes as a result of different treatments and their interactions... A second advantage of MANOVA over a series of ANOVAs when there are several DVs is protection against inflated Type I error [i.e., rejection of a true null hypothesis] due to multiple tests of (likely) correlated DVs. (Tabachnick & Fidell, 1996, pp. 375-376)

A one-way MANOVA for Pretreatment Questionnaire questions 2, 3, 6, 7, 8, and 10 also showed no significant differences among the three treatment groups.

The students also completed an in-class writing assignment during the second week of school. The in-class writing sheet included a simple set of instructions in English, a four-frame picture sequence that the students were to use as the basis for a 200 to 250 word story, the first line of the story, and space to write the story and record the number of words written. The picture sequence was selected for its clear story line and because it did not require prior knowledge of the subject. A number of researchers (Ross, Shortreed, & Robb, 1988; Rousseau, Bottge, & Dy, 1993; Ishikawa, 1995) have used similar picture sequences to gather writing samples from students.

A one-way MANOVA was performed on the in-class writing assignment using total number of words, number of error-free clauses, number of clauses, four vocabulary indices generated by the VocabProfile computer program (sometimes called the LFP [Lexical Frequency Profile]), and the Flesch-Kincaid Readability Index as the dependent variables, and group assignment as the independent variable. No significant differences were found.

The results of the above analyses served to indicate that there were no significant group differences among the three treatment groups. In addition, in order to determine if any significant differences had existed among the three treatment groups at the beginning of the treatment, a one-way MANOVA was performed using the first four weeks of journal entries. There were no significant differences among the three treatment groups.

The results of the above analyses all indicated that there were no significant differences among the three treatment groups at the outset of the study. The possible novelty of the treatment (i.e., Hawthorne effect) would seem to have been eliminated by the fact that the treatment lasted for one year.

The above would all seem to indicate that any significant differences among the three groups that might have developed during the course of the academic year could be attributed to the effect of the treatment the students received during that time rather than to any group differences that might have existed prior to the outset of the treatment period, or to group differences which might have been the result of differences in ability, course content, teacher or instructional methods.

During the course of the year, the students wrote in their journals on a weekly basis. The journals were collected at the end of each week. I read each journal, provided the appropriate feedback, and returned them to the school so that the students could collect their journals from their homeroom teachers on the following Monday.

#### **Analysis**

Procedures related to the identification of possible outliers, the evaluation of the assumptions of normality of sampling distributions, homogeneity or variance-covariance matrices, linearity, and multicollinearity were carried out following recommendations found in Tabachnick and Fidell (1996). The overall alpha level of this study was set at .05; however, a Bonferroni type adjustment was made in order to guard against inflated Type I error. The adjusted alpha for all Multivariate Analysis of Variance tests was set at .005 (the original alpha level of .05 divided by 10, the total number of Mulitvarate Analysis of Variance tests in the study). In addition an adjustment was made in the alpha level for all Univariate F tests. In this case, the adjusted alpha for the Mulitvarate Analysis of Variance tests (.005) was divided by the number of dependent variables (DVs). In the case of the pretreatment and posttreatment questionnaires the adjusted alpha was .0005 (.005/10 DVs).

The descriptive statistics for the Posttreatment Questionnaire items directly related to motivation (questions 11 through 20) are presented in Table 1. It should be noted here that in this particular case the three treatment groups were slightly unequal in size, (Group 1, 30 students; Group 2, 30 students; and Group 3, 29 students). This was because three or four students in each group had not answered all of the questions and the statistical program being used automatically drops such cases from

Duppenthaler 141

the analysis. However, this slight difference in group size should have no effect on the overall findings.

Table 1: Descriptive Statistics for Posttreatment Questionnaire Questions 11 through 20

Question (Q)	Min	Max	Mean	Std.Err.	Std.Dev.	Skewness	Kurtosis
Q11	1.0	5.0	2.489	0.1042	0.999	0.502	-0.170
Q12	1.0	4.0	1.934	0.0824	0.786	0.538	-0.096
Q13	1.0	5.0	2.733	0.1169	1.109	0.196	-0.363
Q14	1.0	5.0	2.196	0.0992	0.952	0.610	0.245
Q15	1.0	5.0	2.560	0.1107	1.056	0.271	-0.357
Q16	1.0	5.0	2.619	0.0975	0.935	0.342	0.020
Q17	1.0	4.0	1.826	0.0882	0.846	0.675	-0.416
Q18	1.0	5.0	2.891	0.1053	1.010	0.418	-0.172
Q19	1.0	5.0	2.326	0.1348	1.293	0.643	-0.642
Q20	1.0	5.0	2.511	0.0920	0.883	0.259	-0.227

A one-way MANOVA analysis of questions 11 through 20 indicated significant differences among the three groups at p = .0006 (see Table 2). These questions were on a scale, which meant that a multivariate analysis of variance (MANOVA), rather than ANOVA, was the preferred method of analysis because the research design included more than one dependent variable.

Table 2: Multivariate Analysis of Variance (Effect = Group)
Posttreatment Questionnaire Questions 11 through 20

Effect	Wilks' Lambda	Rao's R	df 1	df 2	p-level
1	0.5637	2.555	20	154	.0006611*

p < .005

As we can see in Table 2, instead of the univariate *F* value, the multivariate *F* value, *Wilks' lambda*, and *Rao's R* are shown. The MANOVA module of the statistical software program used in this study uses three different multivariate test criteria (*Wilks' lambda, Rao's R*, and *Phillai-Bartlett trace*) and reports two of these in the Table of all Effects as shown in Table 2. These tests are "based on a comparison of the error variance/covariance matrix and the effect variance/covariance matrix. The 'covariance' here is included because the measures [i.e., variables] are correlated and you must take this correlation into account when performing the significance test" (StatSoft, 1984, p. 387).

Univariate F tests for each dependent variable, with the adjusted alpha of p < .0005 used in order to guard against inflated Type I error, indicated that there was one significant difference: Question 19 (I looked forward to getting my journal back each week) at p = .0000 (see Table 3).

Table 3: Univariate F Tests with Degrees of Freedom (2, 86)
Table of Specific Effects for Posttreatment Questionnaire
Questions 11 through 20

Question (Q)	Mean Sqr Effect	Mean Sqr Error	f(df1,2) 2,86	p-level
Q11	2.277	0.900	2.528	0.0857
Q12	0.221	0.591	0.374	0.6886
Q13	6.906	1.112	6.205	0.0030
Q14	0.241	0.928	0.259	0.7718
Q15	1.887	1.117	1.688	0.1908
Q16	0.761	0.871	0.873	0.4211
Q17	0.758	0.621	1.221	0.2999
Q18	0.926	0.982	0.942	0.3935
Q19	13.266	1.290	10.278	0.0000 *
Q20	0.302	0.786	0.385	0.6815

<sup>\*</sup> p < .000

As mentioned earlier, the use of the MANOVA allows us to determine if there are significant differences among group means when there are several dependent variables. The use of a post hoc test allows us to determine exactly where these significant differences lie. As the three groups were slightly unequal in size, post hoc comparisons were conducted

using both the Tukey HSD (Honest Significant Difference) for unequal sample sizes and the Scheffé test. Although these two tests produced the same results, the Scheffé test proved to be the more conservative and was therefore used (see Table 4).

Table 4: Scheffé Test for Posttreatment Questionnaire Question 19

{1} 1.833333	{2} 3.033333	{3} 1.931034
	0.0004780	0.9469634
0.0004780*		0.0016049
0.9469634	0.0016049	
	1.833333 0.0004780*	1.833333 3.0333333 0.0004780 0.0004780*

<sup>\*</sup> p < .0005

As can be seen from the above (Table 4), with regard to question 19, Group 2 was significantly different from Group 1, but there were no other significant differences.

In order to interpret the results of the posttreatment questionnaire let us look at Table 5. Table 5 shows a list of questions, 11 through 20, with each question number and the average for each group. For the questionnaire, 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree. The wording of each question is included in Table 5 for the reader's convenience.

Table 5: Posttreatment Questionnaire Questions 11 through 20 Averages

Question	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Group 1 Average	2.3	1.9	2.2	2.2	2.8	2.6	1.8	2.9	2.0	2.5
Group 2 Average	2.6	2.0	2.9	2.3	2.3	2.6	2.0	2.8	3.0	2.6
Group 3 Average	2.8	2.0	3.2	2.4	2.8	3.0	1.9	3.3	2.2	2.7

#### Table 5 (Continued)

Question 11:	I enjoyed writing in my journal.
Question 12:	I think writing in my journal had a positive effect on my English.
Question 13:	I would like to continue writing in a journal next year.
Question 14:	I enjoy writing in English more now than I did a year ago.
Question 15:	I think my writing is better now than a year ago.
Question 16:	I can express myself in writing more easily now than a year ago.
Question 17:	I think writing in my journal was a good experience for me.
Question 18:	Writing in my journal made me want to study English more.
Question 19:	I looked forward to getting my journal back each week.
Question 20:	Has writing a journal changed your attitude toward English?

#### Results and Discussion

The reliability of self-report questionnaires is always suspect and this fact should be kept in mind when interpreting the results of this study as well as any other that uses them. However, it should also be kept in mind that "almost all motivation assessment uses some sort of 'self report' measure" (Dörnyei, 2001, p. 199).

In order to interpret the results of the posttreatment questionnaire, the following standard was used: 1.8 - 2.3 = agree, 2.4 - 2.8 = agree less strongly, 2.9 - 3.3 = neutral, 3.4-5 disagree. Using this standard we can interpret the above averages for each question as follows:

- Question 11: Group 1 most enjoyed writing in the journals, with the other two groups enjoying the journals, but to a lesser degree.
- Question 12: All groups agreed that writing in their journals had a positive effect on their English.
- Question 13: Group 1 agreed it would like to continue writing in a journal next year, while Groups 2 and 3 neither agreed nor disagreed.

Duppenthaler 145

Question 14: Groups 1 and 2 enjoyed writing in English more at the end of the year than a year earlier. This sentiment was shared to a slightly lesser degree by Group 3.

- Question 15: Group 2 felt that its writing was better than a year earlier, and the other two groups agreed to a lesser extent that their own writing had improved.
- Question 16: Group 3 neither agreed nor disagreed that it could express itself in writing more easily than a year earlier, but Groups 1 and 2 agreed slightly that they could do so.
- Question 17: All groups felt that writing in a journal was a good experience.
- Question 18: Group 2 felt to some extent that writing in a journal made them want to study English more, but Groups 1 and 3 were neutral about this.
- Question 19: Groups 1 and 3 looked forward to getting their journals back each week, but Group 2 was neutral on this.
- *Question 20:* All groups agreed to some extent that writing journals had changed their attitude toward English. An examination of the written comments accompanying this question indicated that almost all of the comments were positive.

As can be seen from the above, all three groups tended to be more positive than negative toward the journal experience. With regard to the question in which there was a significant group difference (Question 19), Group 2 was significantly less eager than Group 1 to get the journals back each week, and both Groups 1 and 3 looked forward to getting the journals back each week (mean: Group 1 = 1.8, Group 2 = 3.0, Group 3 = 1.9).

Questions 11 through 20 on the Posttreatment Questionnaire were designed to determine (a) the degree of either positive or negative feelings the students had with regard to writing in their journals, and (b) whether they felt the experience had been a positive one. The results of a MANOVA indicated a significant difference among the three groups at p = .0006. Univariate F tests indicated one significant difference in Question 19 ("I looked forward to getting my journal back each week.") at p = .0000. Post hoc analyses showed that with regard to Question 19, Group 2 was significantly different from Group 1 at p = .0004. Group 1 had the lowest average, which showed that Group 1 had the most positive re-

sponse to Question 19, followed closely by Group 3, while Group 2 was more negative on this point than either Groups 1 or 3 (average: Group 1 = 2, Group 2 = 3, Group 3 = 2.2). Although these significant differences are of interest, perhaps more important for classroom teachers seeking ways to motivate their students is that it would appear, from Table 5, that all three groups "claimed" to be positively disposed to journal writing. In addition, all three groups reported that they felt it had a positive effect on their English, and that it had been a "good experience" for them.

## **Further Study**

Much work remains to be carried out in the field of motivation. It is "one of the most elusive concepts in the whole domain of the social sciences" (Dörnyei, 2001, p. 2). And yet few if any would deny the profound effect it has on learning. Journals, at least for the students involved in this study, seemed to have a positive effect on motivation. However, it is an undeniable fact that responding to journals takes time. This is one of the main drawbacks to journals mentioned in the literature. The question of time is one that definitely needs to be addressed. What is the relationship between motivation and frequency of journal entries? Is there an optimal frequency and if so, then what is it? In addition, is there some point at which frequency of journal entries crosses over to what Dörnyei (2001, p. 141) has called "the 'dark side' of motivation" (i.e., demotivation)?

A replication of this study at a Japanese boys' high school and at a Japanese coeducational high school, as well as similar institutions in different cultural settings would provide valuable data for comparing the effects of various types of feedback in different settings. Such studies would also lend themselves to an examination of possible gender and cultural differences. It is quite possible that journals are more effective with one gender or cultural group than another.

There is also a need to find out if there is a relationship between the students' levels of English or, possibly, time spent abroad in English-speaking environments, and their feelings towards journal writing. Perhaps as students become more proficient they may also become both more aware of and more concerned about their own errors and shortcomings, and therefore find the experience more intimidating (see for example Radecki & Swales, 1988; & Casanave, 1993b). Perhaps such students feel ready to move on to more structured (i.e., academic) types of writing. They may perceive this as more demanding, challenging and prestigious than journal writing. With the increasing number of returnees in Japan this would undoubtedly be a very interesting area of research.

#### Conclusion

The overall findings of this study reconfirm the positive effect journal writing has on motivation, regardless of feedback type. Journals, as many have noted (Reed, 1988; Jones, 1988; Baskin, 1994) provide opportunities to connect with students in a personal, non-threatening way, opening up their world to teachers in ways that would not otherwise be possible.

During the last few years the Japanese Ministry of Education (*Monbu-kagaku-sho*) has reduced the number of hours that students study English in class in junior and senior high school. Although writing and responding to journals takes time, this does not need to be class time. Journals therefore represent a valuable addition to class time, and provide students with a way to practice language production in a communicative context.

According to Ellis (1994), "Language teachers readily acknowledge the importance of learners' *motivation* . . . [and] SLA research also views motivation as a key factor in L2 learning" (p. 508). The overall findings of this study support the positive effect of journal writing on motivation, regardless of feedback type, and the slightly greater overall positive effect of meaning-focused feedback. All of the groups were positively motivated by the journal experience. If it is true that "What teachers usually wish to know is how they can *intervene*, that is, what they can actually do to motivate learners" (Dörnyei, 2001, p. 116), then the positive effects on motivation reported by the students in this study are well worth considering. "To be motivated to learn, students need both ample opportunities to learn and steady encouragement and support of their learning efforts" (Good & Brophy, 1994, p. 215). The use of journals provides just such opportunities.

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*Peter Duppenthaler* is a professor in the Faculty of Literature at Tezukayama Gakuin University. His research interests include journals, motivation, and strategy use.

#### References

- Aly, M. S. (1992). A descriptive study of four EFL teachers' treatment of writing errors and their feedback in an Arab country. Unpublished doctoral dissertation, Indiana University of Pennsylvania, PA.
- Armstrong, D. C. (1994). A gifted child's education requires real dialogue: The use of interactive writing for collaborative education. *Gifted Child Quarterly*, 38(3), 136-145.
- Ary, D., Jacobs, L. C., & Razavieh, A. (1990). *Introduction to research in education* (4th ed.). Fort Worth, TX: Harcourt Brace College Publishers.
- Bacon, S. M. (1995). Coming to grips with the culture: Another use of dialogue journals in teacher education. *Foreign Language Annals*, 28(2), 193-207.
- Baskin, R. S. (1994). *Student feedback on dialogue journals*. National Institute of Education, Educational Resources Information Center. (ERIC Document Reproduction Service No. ED 375 627)
- Brinton, D., & Holten, C. (1988, March). *Dialog journals: A window on the act of language teaching*. Paper presented at the Annual Meeting of the Teachers of English to Speakers of Other Languages, Chicago, IL.
- Casanave, C. P. (Ed.). (1993a). *Journal Writing: Pedagogical Perspectives*. Institute of Languages and Communication, Keio University, SFC (Shonan Fujisawa Campus).
- Casanave, C. P. (1993b). Student voices: The insiders speak out on journal writing. In C. P. Casavave (Ed.), *Journal Writing: Pedagogical Perspectives* (pp. 95-115). Institute of Languages and Communication, Keio University, SFC (Shonan Fujisawa Campus).
- Cathcart, R. L. & Olsen, J. E. W. B. (1976). Teachers' and students' preferences for correction of classroom conversation errors. In J. F. Fanselow & R. H. Crymes (Eds.), On TESOL '76: Selections based on teaching done at the 10th annual TESOL convention, New York, March 2-7, 1976 (pp. 41-53). Washington, DC: TESOL.
- Dana, N. F. (1993, April). *Teachers for change: An elementary school collaborative program for enhancing school climate*. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta, GA.
- de Godev, C. B. (1994). *A rationale to integrate dialog journal writing in the foreign language conversation class*. U. S. Department of Education, National Institute of Education, Educational Resources Information Center. (ERIC Document Reproduction Service No. ED 375 679)
- Dörnyei, Z. (2001). *Teaching and researching motivation*. Edinburgh Gate, UK: Pearson Education Limited.
- Duppenthaler, P. (2002). Feedback and Japanese high school English language journal writing. Unpublished doctoral dissertation, Temple University, Philadelphia, PA.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Fazio, L. L. (2001). The effect of corrections and commentaries on the journal

Duppenthaler 149

writing accuracy of minority- and majority-language students. *Journal of Second Language Writing*, 10, 235-249.

- Fulwiler, T. (Ed.). (1987). The journal book. Portsmouth, NH: Heinemann.
- Gaustad, M. G., & Messenheimer-Young, T. (1991). Dialogue journals for students with learning disabilities. *Teaching Exceptional Children*, 3(3), 28-32.
- Good, T. L., & Brophy, J. E., (1994). *Looking in classrooms* (6th ed.). New York: HarperCollins.
- Goodman, K. (1986). What's whole in whole language? Portsmouth, NH: Heinemann.
- Hanrahan, M. (1999). Rethinking science literacy: Enhancing communication and participation in school science through affirmational dialogue journal writing. *Journal of Research in Science Teaching*, 36(6), 699-717.
- Harrison, M. R. (1993). The role of teacher response in high school journal writing. In C. P. Casanave (Ed.), *Journal Writing: Pedagogical Perspectives* (pp. 71-77). Institute of Languages and Communication, Keio University, SFC (Shonan Fujisawa Campus).
- Hirose, K., & Sasaki, M. (2000). Effects of teaching metaknowledge and journal writing on Japanese university students' EFL writing. *JALT Journal*, 22(1), 94-113.
- Holmes, V. L., & Moulton, M. R. (1995). A contrarian view of dialogue journals: The case of a reluctant participant. *Journal of Second Language Writing*, 4(3), 223-251.
- Holmes, V. L., & Moulton, M. R. (1997). Dialogue journals as an ESL learning strategy. *Journal of Adolescent and Adult Literacy*, 40(8), 616-621.
- Ishikawa, S. (1995). Objective measurement of low-proficiency EFL narrative writing. *Journal of Second Language Writing*, 4(1), 51-69.
- Jones, P. M. (1988). Knowing opportunities: Some possible benefits and limitations of dialogue journals in adult second language instruction. Unpublished doctoral dissertation, School for International Training, Brattleboro, VT.
- Kirby, D., Liner, T., & Vinz, R. (1988). *Inside out: Developmental strategies for teaching writing* (2nd ed.). Portsmouth, NH: Heinemann.
- Kirk, R. E. (1995). *Experimental design: Procedures for the behavioral sciences* (3rd ed.). Pacific Grove, CA: Brooks/Cole Publishing Company.
- Kluwin, T. N., & Blumenthal, K. A. (1991). The effectiveness of dialogue journal writing in improving the writing skills of young deaf writers. *American Annals of the Deaf*, 136(3), 284-291.
- Konoeda, Y. (1997). Why do some students write more than others in journal writing? *Journal of Humanities*, 21, 14-27.
- Leki, I. (1992). *Understanding ESL writers: A guide for teachers.* Portsmouth, NH: Heinemann.
- Lucas, T. (1990). Personal journal writing as a classroom genre. In J. K. Peyton (Ed.), *Students and teachers writing together: Perspectives on journal writing* (pp. 65-97). Washington, DC: TESOL.
- Lucas, T. (1992). Diversity among individuals: Eight students making sense

of classroom journal writing. In D. E. Murray (Ed.), *Diversity as resource: Redefining cultural literacy* (pp. 202-232). Washington, DC: TESOL.

- McFarland, K. (1992, February). *Case studies of the dialogue journal in multicultural education*. Paper presented at the Annual Conference of the National Association for Multicultural Education, Orlando, FL.
- McGettigan, K. (1987). Dialogue journal: An initiation into writing. *Journal of Reading, Writing, and Learning Disabilities International*, 3(4), 321-332.
- McQuail, J. A. (1995). *Electronic exchanges: Five ways to use electronic networking in the literature classroom.* Paper presented at the Annual Meeting of the Conference of College Composition and Communication, Washington, DC.
- Moulton, M. & Holmes, V. L. (1994). Writing in a multicultural classroom: Using dialogue journals to ease transitions. *College ESL*, 4(2), 12-25.
- Oxford, R. L. (1994). Variables, individual, in language learning: Classroom implications. In R. E. Asher (Ed.), *The Encyclopedia of Language and Linguistics* Vol. 9, (pp. 4893-4899). Princeton NJ: Pergamon Press.
- Peyton, J. K. (1990). Dialogue journal writing and the acquisition of English grammatical morphology. In J. K. Peyton (Ed.), *Students and teachers writing together: Perspectives on journal writing* (pp. 65-97). Washington, DC: TESOL.
- Peyton, J. K., & Reed, L. (1990). *Dialogue journal writing with nonnative English speakers: A handbook for teachers*. Alexandria, VA: TESOL.
- Radecki, P., & Swales, J. (1988). ESL student reaction to written comments on their written work. *System*, 16(3), 355-365.
- Reed, L. (1988). Dialogue journals make my whole year flow: The teacher's perspective. In J. Staton, R. W. Shuy, J. K. Peyton, & L. Reed (Eds.), *Dialogue journal communication: Classroom, linguistic, social, and cognitive views* (pp. 56-72). Norwood, NJ: Ablex.
- Robb, T., Ross, S., & Shortreed, I. (1986). Salience of feedback on error and its effect on EFL writing quality. *TESOL Quarterly*, 20(1), 83-93.
- Robinson, P. (1997). State of the art: SLA research and second language teaching. *The Language Teacher*, 21(7), 7-16.
- Ross, S., Shortreed, I., & Robb, T. (1988). First language composition pedagogy in the second language classroom: A reassessment. *RELC Journal*, 19(1), 29-48.
- Rousseau, M. K., Bottge, B. A., & Dy, E. B. (1993). Syntactic complexity in the writing of students with and without mental retardation. *American Journal of Mental Retardation*, 98(1), 113-120.
- Semke, H. (1984). Effects of the red pen. *Foreign Language Annals*, 17(3), 195-202.
- Skerritt, M. E. (1995). Early secondary students' views on the writing journal's ability to be a self motivator of writing. (Report) (ERIC Document Reproduction Service No. ED 385 848)
- Staton, J. (1985). Using dialogue journals for developing thinking, reading, and

Duppenthaler 151

writing with hearing-impaired students. The Volta Review, 87(5), 127-154.

- Staton, J. (1987). The power of responding in dialogue journals. In T. Fulwiler (Ed.), *The Journal Book* (pp. 47-63). Portsmouth, NH: Heinemann.
- Staton, J. (1988). An introduction to dialogue journal communication. In J. Staton, R. W. Shuy, J. K. Peyton, & L. Reed (Eds.), *Dialogue journal communication: Classroom, linguistic, social, and cognitive views* (pp. 1-32). Norwood, NJ: Ablex.
- StatSoft. (1984). STATISTICA for the Macintosh. Tulsa, OK: StatSoft, Inc.
- Stern, H. H. (1983). *Fundamental concepts of language teaching*. Oxford: Oxford University Press.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.) *Input and Second Language Acquisition* (pp. 235-253). Rowley, MA: Newbury House.
- Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principles and practices in applied linguistics: Studies in honour of H. G. Widdowson* (pp. 125-144). Cambridge: Cambridge University Press.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: Harper Collins College Publishers.
- Timson, S., Grow, A., & Matsuoka, M. (1999). Error correction preferences of second language learners: A Japanese perspective. *JACET Bulletin*, 30, 135-148.
- VocabProfile. (n. d.). *User's manual.* Wellington, New Zealand: Victoria University, English Language Institute.
- Woodfield, D., J. (1997). Output and beyond to dialogue: A review of Merrill Swain's current approach to SLA. *The Language Teacher*, 21(9), 19-20.
- Worthington, L. (1997). Let's not show the teachers: EFL students' secret exchange journals. *Forum*, 35(3), 2-10.
- Yeoman, E. (1995). "Sam's cafe": A case study of computer conferencing as a medium for collective journal writing. *Canadian Journal of Educational Communication*, 24(3), 209-229.

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# Bilingual Pretreatment Questionnaire

Cla	ass (	) N	0(	) Name	<u> </u>
Pa	rt 1: LAN	GUAGE 1	HISTORY 言詞	吾歴	
1.			en to an Eng たことがあり		aking country? ?
	No	go to	) #5)	Yes (	(go to #2)
2.	How long	g were y	ou there? 🤞		在した期間は?
	a.	less tha	n a week	(1	1週間以内)
	b.	1 to 2 w	veeks	(1	1-2週間)
	C.	2 week	s to 3 months	3 (2	2週間以上3ヶ月以内)
	d.	3 mont	hs to 1 year	(3	3ヶ月以上1年未満)
	e.	more th	nan 1 year	(1	1年以上)
3.	How old	were yo	u at that time	:? 何;	<b>歳くらいの時でしたか?</b>
	a.	0-5 yea	rs old	C.	11-14 years old
	b.	6-10 year	ars old	d.	15-18 years old
4.			glish while y き習いましたフ		there?
	Ye	S		No	)
5.	Do you s 学校以外	tudy Eng でも英語	glish outside 手を習っている	of schoo ますか?	ol?
		No (g	o to #8)	Yes	s (go to #6)
6.	Where do	o you stu	ıdy? どこで	(誰に)	習っていますか?
		private	school tutor, native 受(ネイティ		speaker
		個人教	tutor, non-na 受(ノン・ネ	tive Eng イティン	glish speaker ずの先生)
7			その他 ou studied in	the pla	oo vou circled in #62
/.					ce you circled in #6? 習ってきましたか?)

Duppenthaler 153

a. less than a week (1週間以内)

b. 1 to 2 weeks (1-2週間以内)

c. 2 weeks to 3 months (2週間以上3ヶ月以内)

d. 3 months to 1 year (3ヶ月以上1年未満)

e. more than 1 year (1年以上)

8. Do you ever speak English with your family or friends? (家族の人や友人と英語で話すことがありますか?)

a. Yes, several times a week (一週間に数回)

b. Yes, several times a month (一ヶ月に数回)

c. Yes, rarely (まれに)

d. No. never (英語ではなすことはない)

9. Do you have pen pals in foreign countries? (外国に文诵友達がいますか?)

Yes (go to #10)

No

10. How often do you write to them? (その友達に手紙を書くのは...)

a. at least once a week (少なくとも一週間に1回)

b. at least once a month (少なくとも一ヶ月に1回)

c. several times a year (一年に数回)

d. once a year (一年に1回)

#### Part 2: WRITING 英語を書くことに関して

1=strongly agree (全くその通りだと思う)

2=agree (まあまあその通りだと思う)

3 = neither agree nor disagree (どちらでもない)

4 = disagree (どちらかというとそう思わない)

5 = strongly disagree (全くそうは思わない)

11. ( ) I enjoyed writing in my journal. 楽しんでジャーナルが書けた

12. ( ) I think writing in my journal had a positive effect on my English. ジャーナルを書いたことは自分の英語にプラスであった

- 13. ( ) I would like to continue writing in a journal next year. 来年度もジャーナル書きを続けたいと思う
- 14. ( ) I enjoy writing in English more now than I did a year ago. 一年前に比べて英語を楽しんで書けるようになった
- 15.( ) I think my writing is better now than a year ago. 一年前に比べて自分の英語は進歩したと思う
- 16. ( ) I can express myself in writing more easily now than a year ago.

  一年前に比べて自分の言いたいことがより簡単に表せるようになった
- 17. ( ) I think writing in my journal was a good experience for me. ジャーナルを書いてきたことは自分にとっていい経験 だったと思う
- 18. ( ) Writing in my journal has made me want to study English more. ジャーナルをかくことによって英語の学習意欲がより強まった
- 19. ( ) I looked forward to getting my journal back each week. 毎週ジャーナルが返ってくるのが楽しみであった
- 20. ( ) Has writing a journal changed your attitude toward English? ジャーナルを書くことによって英語に対する取り組み や考え方が変わりましたか

(この下に自由に英語で書いて下さい)

# 学習観がCALL教室における英語学習の成果に及ぼす影響: クラスター分析を用いた学習者プロファイリング

# Learner Beliefs in Language Learning in the CALL Environment

下山幸成 (しもやまゆきなり) 早稲田大学 磯田高道 (いそだたかみち) 早稲田大学 山森光陽 (やまもりこうよう) 早稲田大学

Students' beliefs about language learning and their relationship to learning achievement in a CALL environment were investigated. Unlike previous studies whose purpose was to describe learners' beliefs on each questionnaire item, this study aimed to deal with beliefs comprehensively.

Research on learner beliefs is gaining increasing attention. Behind this trend is the recognition that learners' behaviors cannot be changed unless their preconceptions are changed. Inspired by early studies such as Horwitz (1987), a number of researchers have conducted studies which would supposedly explain the relationship between beliefs and behaviors and, further, provide useful information for learner training. However, most of the studies to date do not take such approaches as to achieve the goals of the beliefs study. The approach of the analysis has been rather descriptive: distribution and frequencies of responses were simply shown. Even though some studies compared the beliefs of different populations, which indicated some significant differences, what we can get from such studies is, again, the description of the populations. To forward the beliefs study, we need to incorporate into the analysis both the beliefs and the behaviors (e.g., motivations, strategies, achievement).

This study set out to investigate the intra-relationship between students' beliefs about language learning and their effects on learning achievements. Particular features of this study are; 1) profiling learners by simultaneously analyzing multiple questionnaire items for a comprehensive view of learners, and 2) analyzing the relationship between beliefs and learning achievements. Participants were 77 high school students who were taking EFL courses in a CALL environment. In the class, they mainly worked on a designated CD-ROM material individually. A questionnaire adapted from BALLI (Horwitz, 1987) was used to elicit the participants' beliefs. The items for the questionnaire were chosen by three EFL instructors as related to the learners' CALL experiences. The participants were asked to indicate to what extent they agreed or disagreed to the statement on the questionnaire on a five point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The analyses had two phases. The first analysis was carried out to profile the learners based on their responses to the questionnaire using cluster analysis (Ward method, squared Euclidean distance technique). This statistical technique is used for finding relatively homogeneous subgroups in the population. This analysis yielded four distinct clusters (numbered cluster 1 to 4), but cluster 4 was not included in the later analysis because it had only two participants in this cluster. The remaining three subgroups are differentially characterized by, in particular, different levels of confidence to learn English and attitudes toward individualized learning. Cluster 1 was a group of students who are less confident about their learning. Cluster 2 showed a high language anxiety and low confidence in learning, but it also showed a favor for individualized learning. Cluster 3 was found active in learning and was differentiated from the other two by the high level of confidence to learn English. Next, the three subgroups were compared on the learning achievements measured by the term-end examinations. One-way ANOVA indicated that there was a statistically significant difference among the three groups' achievements (p= .04). Post hoc multiple comparison was conducted with Tukey's Method. The results showed that there was a significant difference between cluster 1 and 3 (p=.03).

The above results indicate that the CALL environment may have a compensative effect on students whose characteristics are not necessarily advantageous for the traditional classroom learning environment. This implication was drawn particularly from the result for cluster 2, which is a group of learners whose high anxiety and low confidence to learn English do not seem to favor them. Their characteristics are similar to those of cluster 1, but the achievements of cluster 2 was not as low as cluster 1 despite their disadvantageous characteristics. This indicates that their CALL experiences, which provide a lot of opportunities for working individually, compensated for their disadvantages which would have inhibited them in a traditional classroom setting.

本研究では、学習観がCALL教室における英語学習の成果に及ぼす影響を、クラスター分析を用いた学習者プロファイリングによって検討した。BALLIの中から、特にCALL学習に関係が深いものを13項目選び、学習者をカテゴライズした。その結果、(1)全体的に英語学習に対して消極的な生徒、(2)言語不安が高く英語学習に対する自信が低いが、対人関係のない個別学習に向く生徒、(3)全体的に英語学習に対して積極的な生徒、の3つのタイプの学習者に分けられた。これら3つの学習者のタイプと学習成果との関連を分析した結果、CALL教室における英語学習は、従来型の英語の授業では高い学習成果を期待することが難しい、言語不安が高く英語学習に対する自信が低い、対人関係のない個別学習に向いている生徒に対して補償的に働くことが示唆された。

■ Tの進歩に伴い、多くの現場で、テクノロジーを応用した教育が行われるようになり、機器の利用という観点から多くの研究と実践がなされている。しかし、この動きは、「はじめに機器ありき」の風潮があり、学習者要因について注意が十分に払われているとは言えないのが現状である。Cognition and Technology Group at Vanderbilt (1996)が指摘しているように、特にテクノロジーを利用した教育環境のデザインにおいては、教育工学、教育問題及び内容、そして学習にまつわる諸理論の3つを考慮する必要がある。

そこで、本研究では、数多くある学習者要因のうちの一つである学習観(learner beliefs:市川, 1993)が、CALL (Computer-Assisted Language Learning) 教室での教育実践の学習成果にどのように影響するのかを検討する。

外国語教育の実践や研究が学習者中心の方向へ向かうにつれ、学習というものの捉え方が、単に知識を受け取る受動的な教育・学習観から、知識は学習者が構築するものという能動的な教育・学習観に変遷した(Little, 1991; Williams & Burden, 1997)。その流れの中で、能動的に学習をコントロールする過程に影響する要因の研究(例えば動機づけ、学習方略)が盛んになっている。

学習観もその要因のひとつとして研究されているものである。学習観が研究対象となった理由は、以下のような考えがある。学習者がとる行動の背景には学習者自身が持つ学習観があり、彼らはそれを基に行動を選択していると考えられている(Holec, 1987)。そのため、学習者の行動が望ましくないと判断される時などに教師が介入をする場合があるが、行動を変えるにはその基にある学習観が変わらなければならないという観点から、教授学習過程において学習観が重要であると認識されている(Victori & Lockhart, 1995)。外国語教育以外の分野でも学習観の重要性が認められ、教育的介入を行って学習観とそれに伴う学習行動を変容させる試みがなされている(市川, 1993)。

学習観の影響は様々な場面で見られるが、特に学習者自身がコントロールできる割合の多い場面で影響が強いと思われる。そのなかで、CALL教室での授業は普通教室での授業と異なり、個人で行う学習の割合が多いので、学習観に左右される割合も多いと考えられる。例えばCD-ROM教材を使って学習する場合、行うタスクは皆同じであるが、「何のために」「言語のどこに注目し」「どのように行うのか」といった指示が詳細になされている教材はほとんど無く、学習者は自らがそれらを判断しなければならない。このような状況下では、その学習のコントロールは学習観に影響を受ける可能性が高いと考えられる。仮に同じ教材を使って学習していたとしても、学習者によっては言語の異なる面に注目したり、学習の方法も人によって異なることが予想される。

外国語教育研究において学習観の研究が盛んになったのは、1980年代後半からであるが、その契機となった研究のひとつがHorwitz (1987)である。この研究によって学習観研究が広まった理由は、BALLI (The Beliefs About Language Learning Inventory) が作成された点にある。これ以降、BALLIが学習観を引き出す道具として数多くの研究で使用されている(Horwitz, 1988; Mantle-Bromley, 1995; Kern, 1995)。それらの研究の報告によると、学習者は全てが同じ学習観を持っているのではなく、人それぞれに異なっていると言われている。

ただし、それらのBALLIを使った研究(Horwitz, 1988; Mantle-Bromley, 1995; Kern, 1995等)が、学習観研究の本来の目的を達しているとは言い難い。その理由は2点ある。第1に、研究のアプローチがあくまで記述的なところでとどまっていることである。分析が被験者全体の傾向を記述統計(主にパーセンテージ)を用いて表しているにすぎず、学習行動や学習成果との関連が検討されていない。第2に、質問項目ごとの検討にとどまっており、項目の組み合わせによる学習者のプロファイリングとして研究がなされていないため、個人の傾向が見えてこないことである。本来、学習観というものは、学習者一人に対して一つだけ割り当てられているものではない。学習者は、学習に対して様々な考えを持っており、この組み合わせが学習行動や学習成果に対して影響を与えると考えるのが自然である。

BALLIはもともと授業で学習者の学習観を引き出すための道具であって、研究のための尺度ではないため、全ての項目が授業過程に関係しているとは言えない。従って、BALLIを使って学習成果等との関連を調べる場合、項目の選定が必要であると考えられる。

そこで本研究では、BALLIの項目の中で特にCALLに関係があると考えられるものを選定し、その上で選定された項目全てへの反応の傾向に応じて学習者のプロファイリングを行い、学習成果に差があるかどうか検討した。

## 方法 対象者ならびに授業形態

対象者は東京都内の私立高等学校の1年生77名で、全て男子である。授業は1時限50分で、20~25分を市販のCD-ROMソフトウェアを用いて学習し、15分程度既成のソフトウェアでタイピングを練習し、残りは、ホームページ上で公開されている単語テストや文法テストで学習するという形式だった。CD-ROMソフトウェアはCALL教室用のもので、リスニングスキルを伸ばすと同時に語彙・文法の定着を意図した、New Dynamic English (DynEd International, 2000)であった。

#### 質問紙

BALLI (Horwitz, 1987) の中から、CALL教室での学習と関係が深いと考えられる項目を、東京都内の公立および私立の中学校・高等学校に勤務する英語教師3名で協議の上、選定した。その結果、表1に示した項目を利用することを決定した。

#### 表1: 本研究で用いたBALLIの項目

No. 1	私は自分が英語を上手に話せるようになると信じている
No. 2	きれいな発音で英語を話すことが大切である
No. 3	英語を話すためには英語を話す国の文化について知ることが必要だ
No. 4	外国語を学習するのに最も大切なことは単語を学習することである
No. 5	何度も繰り返し練習することが大切である
No. 6	日本人は英語を話すのが大切だと感じている
No. 7	他の人と英語で話す際びくびくしてしまう
No. 8	外国語を学習するのに最も大切なことは文法を学習することである
No. 9	カセットテープ等を用いて練習することが大切である
No. 10	英語を学習するのに最も大切なことは日本語からの訳し方を学習することで ある
No. 11	英語を上手に学習すればよい仕事につく機会が増える
No. 12	私は英語を上手に話せるようになりたい
No. 13	英語を話したり聞いたりするよりも読んだり書いたりする方が容易である

#### 学習成果の指標

New Dynamic Englishに付属のMastery Test (Level 2, Disk 1)を2月に実施し、その結果を利用した。テスト問題の構成は、リスニングをしながら文字や絵を選んで解答する選択問題、単語を並べかえて正しい文を完成させる語句整序問題等であり、全てマウス操作で解答する形式であった。内容は、2学期後半から3学期の平常授業で練習してきたDaily Activities, Our World, Locationsに関してのものであり、それぞれ100点満点であった。本研究においては、この3つのテストの合計点を学習成果の指標として用いた。従って、得点の範囲は0点から300点であった。

## 結果 平均及び標準偏差

まず、本研究で用いたBALLIの各項目の平均及び標準偏差は表2の通りであった。また、学習成果の平均及び標準偏差は、M=229.60、SD=32.54であった。

表2 本研究で用いたBALLIの各項目の平均および標準偏差

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13
M	2.95	1.74	2.84	2.58	1.38	1.88	2.77	3.09	3.14	3.34	1.60	1.55	2.74
SD	1.11	0.99	1.36	1.21	0.84	0.99	1.15	1.18	1.20	1.13	0.85	0.85	1.27

## クラスター分析の結果

SPSSによる、平方ユークリッド距離を用いたウォード法によりクラスター分析を行い、対象者をいくつかのタイプに分けた。ウォード法を用いた理由は、この方法によるクラスター分析は、比較的まとまったクラスターが得られやすく、パターンの分類に有用であると考えられたためである。この結果得られたクラスターツリーは、Appendixを参照されたい。

実際のグループ分けにおいては、ノンパラメトリック検定の結果を検討し、最もグループの特徴を記述できるプロフィールの得られる点を探索した上で、カッティングポイントを定めた。その結果、4つのクラスターが得られた。各クラスターの所属人数は、第1クラスターが22人、第2クラスターが35人、第3クラスターが18人であった。しかし、第4クラスターについては2名のみの所属であったので、以後の分析に第4クラスターの生徒についてのデータは利用しない。

次に、クラスター分析の結果の妥当性を検討した。クラスター分析において投入した、13の学習観についての得点が、各クラスター間で差がある

かどうかを、ノンパラメトリック検定(クラスカルーウォリス検定)の結果により確認した。通常このような得点の比較には、分散分析が用いられる。しかし、BALLIの回答などにみられるような順序カテゴリカルデータに対しては、ノンパラメトリック検定を用いることが推奨されている(石田、1990)。従って本研究ではノンパラメトリック検定を用いた。一方、学習成果については一元配置の分散分析を使用した。

その結果、No.1「私は自分が英語を上手に話せるようになると信じている」( $\chi^2$  (2,77)=14.51、p=.001)、No.3「英語を話すためには英語を話す国の文化について知ることが必要だ」( $\chi^2$  (2,77)=26.03、p=.000)、No.4「外国語を学習するのに最も大切なことは単語を学習することである」( $\chi^2$  (2,77)=17.38、p=.000)、No.7「他の人と英語で話す際びくびくしてしまう」( $\chi^2$  (2,77)=7.41、p=.025)、No.8「外国語を学習するのに最も大切なことは文法を学習することである」( $\chi^2$  (2,77)=8.62、p=.013)、No.9「カセットテープ等を用いて練習することが大切である」( $\chi^2$  (2,77)=8.62、p=.013)、No.9「カセットテープ等を用いて練習することが大切である」( $\chi^2$  (2,77)=7.73、 $\chi^2$  (2,77)=7.74 (2,77)=7.7

表3: 各クラスターのBALLIの得点の平均, 標準偏差ならびにノンパラメトリック検定の結果

		No.1	No. 2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	No.11	No.12	No.13
第1クラスター	М	2.77	4.09	2.18	2.59	4.64	3.82	3.05	3.18	2.50	2.68	4.23	4.50	2.82
(n=22)	SD	1.11	1.06	1.01	1.05	0.73	1.01	1.17	0.96	0.86	1.09	0.69	0.80	1.14
第2クラスター	М	2.86	4.31	3.31	3.89	4.66	4.37	3.66	3.09	3.29	2.80	4.60	4.49	3.97
(n=35)	SD	0.77	0.76	1.23	0.96	0.64	0.69	0.80	1.12	1.13	1.13	0.55	0.70	0.79
第3クラスター	M	4.00	4.72	4.28	3.56	4.50	4.22	2.78	2.22	2.67	2.50	4.61	4.61	2.22
(n=18)	SD	1.08	0.57	0.89	1.20	1.29	1.11	1.40	1.22	1.41	1.20	0.70	0.78	1.26
多重比較の結果		第1<第3		第1<第2	第1<第2			第2<第3	第1<第3	第1<第2				第1<第2
(ボンフェローニの修 正後p<.05で有意差の あったもの)		第2<第3		第1<第3	第1<第3				第2<第3					第1<第3
				第2<第3										

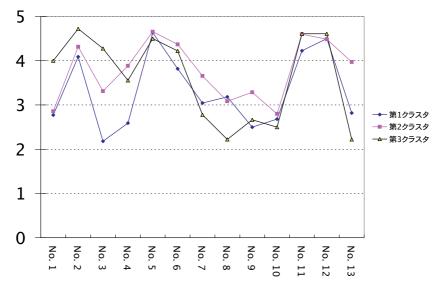


図1: 学習者プロフィール

このクラスター分析の結果、得られた3つのクラスターの特徴をプロフィールにしたものが図1である。この結果をまとめると、次のようになる。

第1クラスターの生徒は、「自分が英語を上手に話せるようになると信じている」傾向が強くなく、「英語を話すためには英語を話す国の文化について知ることが必要だ」とあまり感じず、同時に「外国語を学習する際単語を学習することが大切だ」とも感じていない。一方で、「文法を学習することが大切だ」とは普通に感じている。従って、全体的に英語学習に対して消極的な学習観を有している生徒と言える。

第2クラスターの生徒は、「自分が英語を上手に話せるようになると信じている」傾向が強くなく、「英語を話したり聞いたりするよりも読んだり書いたりする方が容易である」と感じていて、「他の人と英語で話す際びくびくしてしまう」と同時に「カセットテープ等を用いて練習することが大切だ」と感じている。従って、全体的に消極的で口頭練習に対する不安が高いが、対人関係のない個別学習に向く生徒と言える。

第3クラスターの生徒は、「自分が英語を上手に話せるようになると信じている」傾向が高く、「英語を話すためには英語を話す国の文化について知ることが必要だ」と感じている一方で、「外国語学習において文法を学習することが大切だ」とは感じず、「英語を読んだり書いたりするより話したり聞いたりする方が容易だ」と感じている。従って、全

体的に英語学習に対して、コミュニケーションを通じて積極的に取り組む姿勢を持った生徒と言える。

また、学習成果の結果の各クラスター間における差を一元配置の分散分析によって検討した。その結果、F(2,74)=3.31、p=.042であり、クラスター間で学習成果に有意差 (p<.05) があることが確認された。さらに、Tukeyの方法を用いた多重比較を行った結果、第1クラスターと第3クラスターとの間で、学習成果に有意差(p=.03)があることが確認された。つまり、第1クラスターの生徒は、第3クラスターの生徒に比べて、学習成果が有意に低いことが示唆された。

-	第1クラスター	第2クラスター	第3クラスター
M	219.55	230.23	244.89
SD	30.83	31.88	29.44

表4: 各クラスターの学習成果についての平均と標準偏差

#### 考察

本研究が、学習観と外国語学習との関係を扱った他の研究と一線を画すのは、次の2点である。第1は、従来の研究に見られるように、学習観の善し悪しを論じるのではなく、項目の組み合わせによる学習者のプロファイリングを行い、包括的な学習者像を捉えようとした点である。第2は、学習者のタイプの違いと学習成果との関係を論じた点である。

本研究の結果得られたクラスターのうち、最も学習成果が高かった群は、第3クラスターに属する生徒であった。このクラスターに属する生徒は、英語学習に対する自信が高く、コミュニケーションを通じて積極的に英語学習に取り組む姿勢を持った、外国語学習に対して促進的に働くと考えられる学習観を有している生徒であると言えよう。このような生徒の場合、CALL教室においての英語学習のみならず、普通教室における従来型の英語学習においても、同様に良い学習成果を修める生徒であると考えられる。従って、このような語学学習に対して促進的に働くと考えられる学習観を持ち合わせていることが、CALL教室における学習に対してのみ促進的な効果をもたらすというわけではないと言えよう。

一方、最も学習成果が低かった群は第1クラスターに属する生徒であった。このクラスターに属する生徒は、英語学習に対する自信が低く、全体的に英語学習に対して消極的な学習観を有していると考えられる生徒であった。このような生徒は、CALL教室での学習に限らず、英語学習全般においても、高い学習成果を期待することは難しいと言えよう。ここで最も問題としたいのは、第2クラスターに属する生徒である。

このクラスターに属する生徒は、第1クラスターの生徒と同様に英語学習に対する自信が低く、さらに「他の人と英語で話す際びくびくしてしまう」という項目の点が高いことから、言語学習不安が高い生徒であると言える。しかし本研究において、第2クラスターの生徒の学習成果は統計的有意差は認められなかったものの、素点を検討した結果、第1クラスターの生徒ほど低くはなかった。

Horwitz (1986), Young (1986), MacIntyre and Gardner (1994)など、多くの研究において、言語学習不安と学習成果との間には有意な負の相関があるという結果が得られている。さらに、Salili, Chiu and Lai (2001) が指摘しているように、英語学習に対する自信と学習成果との間には、有意な正の相関があると考えられてきた。従って、英語学習に対する自信が低いこともまた、低い学習成果につながると考えられる。これらの先行研究に従って考えると、第2クラスターの生徒の学習成果が第1クラスターの生徒と同様に低くなると予測できる。しかし実際は、第2クラスターの生徒の学習成果は、第1クラスターの生徒ほど、低くはなかった。

第2クラスターの生徒も、第1クラスターの生徒と同様に一般的には高い学習成果を期待することは出来ないように考えられる。だが、このクラスターの生徒は、No. 9「カセットテープ等を用いて練習することが大切である」において第1クラスターの生徒との間に有意差が認められたことから、対人関係のない個別学習を好む生徒であったと考えられる。CALL教室における学習は、従来型の教室で行われる英語の授業とは異なり、周りの生徒や教師のことを意識することなく、個人のペースで学習を進められることが特徴である。従って、対人関係のない個別学習を好む学習観を持っていることが促進的に働いた結果、言語学習不安が軽減され、第1クラスターの生徒のような低い学習成果にはつながらなかったと考えられる。

以上の点から、CALL教室における学習は、従来型の英語の授業では 高い学習成果を期待することが難しいが、個人で学習を進めることに対 しては肯定的な学習観を持つ生徒に対して、補償的に働く可能性のある ことが示唆された。

このことは、必ずしもCALL教室での授業が他の形態の授業に比べて望ましいという結果にはつながらない。山森・前田・磯田 (2002)が指摘しているように、適性処遇交互作用のパラダイムを援用すると、一つの授業形態に向く生徒がいるということは、それ以外の形態での授業に向く生徒が存在する可能性をも示唆していると言えよう。CALL教室での授業に向く生徒がいると言うことが確認されたことは、一方で、従来型もしくはそれ以外の形態での授業に対して向く生徒が存在する可能性も否定できないのである。Sternberg (1996) は、一つの教室に存在する多様な個性に対応するためには、一つのクラスにおいて、様々な教授法を切り替えて授業を行う必要があることを、認知心理学の研究成果をもとに

指摘している。またSawyer and Ranta (2001) は、多様な個性の持ち主である学習者に対してどのような学習法が有効であるかの検討を個人差研究は可能にするとし、言語教育学の新地平を切り開く可能性があると指摘している。つまり、CALL教室での授業も含めた多様な形態での学習機会を提供することが、我々英語教師に課せられていると言えよう。

### 結論

本研究では、学習観とCALL教室における英語学習の成果との関係を、クラスター分析を用いた学習者プロファイリングによって検討した。BALLIの中から、特にCALL学習に関係が深いと考えられるものを13項目選定し、学習者をカテゴライズした。その結果、(1)全体的に英語学習に対して消極的な生徒、(2)言語学習不安が高く英語学習に対する自信が低いが、対人関係のない個別学習に向く生徒、(3)全体的に英語学習に対して積極的な生徒、以上3つのタイプの学習者に分けられた。これら3つの学習者のタイプと学習成果との関連を検討した結果、言語学習不安が高く、英語学習に対する自信が低く、かつ対人関係のない個別学習に向くという、従来型の英語の授業では高い学習成果を期待することが難しい生徒に対して、CALL教室における英語学習は補償的に働くことが示唆された。

この結果を解釈する上で注意すべき点は、CALL教室での授業が従来型の授業に比べて優れているという結果にはならない点である。適性処遇交互作用のパラダイムに基づいて考えると、CALL教室での授業を好む生徒が存在するということは、それ以外の形態での授業を好む生徒が同時に存在する可能性があるということである。従って、教師は、生徒の多様性に応じて多様な学習環境を提供する必要性を忘れてはならない。

最後に、CALL教室における授業以外の多様な授業形態に対しても、 本研究と同様の方法によって検討を行うことにより、学習者の特性を考慮した教育環境のデザインを可能とすると考えられる。

## 執筆者略歷

下山幸成 (SHIMOYAMA, Yukinari) 早稲田大学大学院教育学研究科博士 課程在籍。早稲田実業学校英語科講師。専門は応用言語学,教育工学。 特にLL・CALLを用いた教育実践及びシラバスデザイン。

磯田貴道 (ISODA, Takamichi) 早稲田大学大学院教育学研究科博士課程 在籍。早稲田実業学校英語科講師。専門は応用言語学。特に外国語学習 における学習者要因および認知心理学的要因について。

山森光陽(YAMAMORI, Koyo)早稲田大学大学院教育学研究科博士 課程在籍。世田谷区立駒留中学校英語科講師。専門は教育心理学。特に 適性処遇交互作用(ATI)、学習意欲、教育評価および測定。

## 参考文献

- Cognition and Technology Group at Vanderbilt. (1996). Looking at technology in context: A framework for understanding technology and education research. In D. C. Berliner & R. C. Calfee (Eds.), Handbook of educational psychology (pp. 807-840). New York: Simon & Schuster Macmillan.
- DynEd International. (2000). New Dynamic English (Version 3.0) [Computer software]. Burlingame, CA: DynEd International.
- Holec, H. (1987). The learner as manager; managing learning or managing to learn? In A. Wenden & J. Rubin (Eds.), Learner strategies in language learning (pp. 145-157). London: Prentice Hall.
- Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. TESOL Quarterly, 20, 559-562.
- Horwitz, E.K. (1987). Surveying students' beliefs about language learning. In A. Wenden & J. Rubin (Eds.), Learner strategies in language learning (pp. 119) -129). London: Prentice Hall.
- Horwitz, E.K. (1988). The beliefs about language learning of beginning university foreign language students. The Modern Language Journal, 72, 283-294.
- 市川伸一(1993)『学習を支える認知カウンセリング―心理学と教育の新たな接
- 点』ブレーン出版 石田潤 (1990) 「データを数値で表現する方法」森敏昭・吉田寿夫(編)『心理 学のためのデータ解析テクニカルブック』北大路書房
- Kern, R. (1995). Students' and teachers' beliefs about language learning. Foreign Language Annals, 28, 71-92.
- Little, D. (1991). Learner autonomy 1: Definitions, issues and problems. Dublin: Authentik Language Learning Resources Ltd.
- MacIntyre, P. D. & Gardner, R. C. (1994). The effects of induced anxiety on cognitive processing in second language learning. Studies in Second Language Acquisition, 16, 1-17.
- Mantle-Bromley, C. (1995). Positive attitudes and realistic beliefs: links to proficiency. The Modern Language Journal, 79, 372-386.
- Salili, F., Chiu, C. & Lai, S. (2001). The influence of culture and context on students' motivational orientation and performance. In F. Salili, C. Chiu, & Y. Hong (Eds.), Student motivation: The culture and context of learning (pp. 221-247). New York: Kluwer Academic/Plenum Publishers.
- Sawyer, M & Ranta, L. (2001). Aptitude, individual differences, and instructional design. In P. Robinson (Ed.), Cognition and second language instruction (pp. 319-353). Cambridge: Cambridge University Press.
- Sternberg, R. J. (1996). Matching abilities, instruction and assessment: reawakening the sleeping giant of ATI. In I. Dennis & P. Tapsfield (Eds.), Human abilities: Their nature and measurement (pp. 167-181). Mahwah: Lawrence Erlbaum Associates.
- Victori, M. & Lockhart, W. (1995). Enhancing metacognition in self-directed language learning. System, 23, 223-234.
- Williams, M. & Burden, R. (1997). Psychology for language teachers. Cambridge: Cambridge University Press.
- 山森光陽・前田啓朗・磯田貴道 (2002)「個人差を考慮した教育環境のデザイン : 学習者の特性と教育環境との交互作用」『外国語教育メディア学会第42回 全国研究大会発表要項』156-157
- Young, D. (1986). The relationship between anxiety and foreign language oral proficiency ratings. Foreign language Annals, 19, 439-445.

# 日本人大学生の外国語学習スタイルとKolbの Experiential Learning Theory

# Foreign Language Learning Style of Japanese University Students and Kolb's Experiential Learning Theory

藤田裕子(ふじたゆうこ) 東北大学

This study examined whether David A. Kolb's (1984) Experiential Learning Theory (ELT) can be applied to Japanese. ELT has received particular attention in describing individual learning processes in English speaking countries where Learning Style Study is prosperous. ELT postulates two orthogonal bipolar dimensions of cognitive development: the active-reflective dimension and the abstract-concrete dimension. Kolb uses these polar extremes to define a four-stage cycle of learning. It begins with the acquisition of concrete experience (CE). This gives way to reflective observation (RO) on that experience. Next to that, theory building or abstract conceptualization (AC) occurs. The theory is then put to the test through active experimentation (AE). The cycle thus recommences since the experimentation itself yields new concrete experience.

There are two questionnaires based on Kolb's theory in wide use The Learning Style Inventory (LSI) and Learning Styles Questionnaire (LSQ). LSI is one of the most popular questionnaires in English speaking countries; however, some researchers have called into question its reliability and validity. LSQ was developed after considering LSI's problems, but its reliability and validity also have not been examined sufficiently.

The author translated LSI and LSQ into Japanese to apply them in a pilot study. Some problems ware reported, such as the method of answering LSI, the ambiguity of LSQ, and factors that are difficult to understand for English non-native speakers. The author accordingly developed a

new questionnaire that was based on ELT but revised for Japanese. The questionnaire consisted of a set of 12 randomly arranged items on each of the four learning stages to be measured. The Likert-scaled 48 items ranged from Strongly Agree (6) to Strongly Disagree (0). The questionnaire was distributed at two national universities and 218 students completed it.

The principal component analysis was carried out and promax rotation was used. Contrary to Kolb's theory, which has two bipolar axes and four poles of learning, in this study five factors were found: Deliberative, Logical, Pragmatic, Challenge and Systematic. The Deliberative style means that when a learner has this ability, he or she makes decisions after deliberation and progresses step-by-step. The Logical style represents a learner who attaches importance to logic and correctness. The Pragmatic style stands for a learner who always thinks about using language in the real world. The Challenge style means a learner who is flexible to new things and solves problems actively. The Systematic style describes a learner who finds rules from a lot of information and learns systematically. The result of Cronbach's alpha analysis indicated that all the five factors have a high degree of internal reliability from .77 to .65 and possess some degree of correlations from -.07 to .51. The result means that there are not two bipolar axes as Kolb supposed, but five factors that are independent with only factor one and two having a correlation with each other.

Because the five factors are independent and have a high degree of internal reliability, Japanese university students have foreign language learning styles that are different from Kolb's theory. Although the theory has received much attention and LSI and LSQ are widely used in English speaking countries, they cannot be applied directly to Japanese university students. Thus it is concluded that a new theory and questionnaire are needed in order to grasp the foreign language learning style of Japanese.

本稿ではまず、欧米で広く認められている Kolb (1984)のExperiential Learning Theory とそれに基づいて作成された 2 つの調査票The Learning Style Inventory (LSI) と Learning Styles Questionnaire (LSQ) の概略と問題点についてまとめた。次にその問題点を踏まえて筆者がKolbの理論に基づいて新たに外国語学習スタイル調査票を作成し、日本人大学生を対象に調査を行った。その結果、Kolbが想定した 2 つの軸や 4 つの学習能力を示す因子は抽出されず、「熟考」、「論理」、「実用」、「挑戦」、「秩序」の 5 因子が抽出された。この5因子はそれぞれ独立しており内的一貫性も認められるため、日本人大学生にはKolbの理論とは異なる外国語学習スタイルが存在する可能性が高い。このことはLSIやLSQを日本人大学生に使用し、結果をKolbの理論にそのまま当てはめて解釈するのは問題があることを示している。

習者の学び方は様々である。それを考慮して授業を運営すれば 学習者の学習効率を高めることが可能なのではないだろうか。 このような考えのもとで行われているのが学習スタイル研究で ある。しかし学習スタイルの意味や内容は研究者によって異なっている。 また学習スタイルを把握するための尺度には様々なものがあり、適切なものを選択するのは難しい。さらに外国語学習に焦点をしぼった尺度が少なく、学習スタイルを測る尺度で外国語学習スタイルも測れるかどうかも検証されていない。その上日本とは異なる文化圏で作成された尺度を日本で使用するためには、その尺度が日本でも適用可能かどうかを検証しなければならない。

本稿では、欧米で広く知られているKolb(1984)の学習理論(Experiential Learning Theory、以下ELT)に基づいて作成されている学習スタイル調査票について検討し、ELTをもとに筆者が新たに作成した調査票を用いて行った調査の結果について述べる。

#### 学習スタイル

学習スタイルに似た概念に認知スタイルがある。認知/学習スタイ ル研究はもともと個人差への興味から発達してきた。研究者によって言 葉の使い方が異なっており、明確には区別されていないが、Riding and Cheema (1991) は、言葉としてはAllport (1937) が用いた認知スタイ ルの方が古く、認知スタイルよりも一般的な用語として、または認知ス タイルに取って代わる用語として、1970年代に現れたのが学習スタイル だと述べている。また同書は、学習スタイルの方がより実用的で教育的 であり、認知スタイルの方がより理論的で学術的であるとしている。さ らに、認知スタイルは場依存型と場独立型のように2極化していて相反 するものであるのに対し、学習スタイルは様々な要素を含み、多くの場 合2極化するものではないため、あるスタイルの存在によって他のスタ イルの存在が否定されるわけではないとも述べている。学習スタイルの 定義としては、「性格に起因する内的なもので、学習者に認識されたり 意識的に使われたりすることはほとんどないが、新しい情報の取り込み と理解に用いられるもの」(Reid, 1998: ix)、「すべての状況における知 覚、記憶、思考、判断の個人的一貫性」(Curry, 2000: 239)などがある。

#### Kolbの学習理論

Kolb(1984)のELT(図1)は多くの心理学者によって支持されている認知的発達の2つの軸を直角に組み合わせたものである。2つの軸とは行動-内省の軸(横軸)と具体-抽象の軸(縦軸)である。行動-内省の軸は実際に参加するか観察するかを表し、具体-抽象の軸は実在するものを好むか理論的概念を好むかを表している。

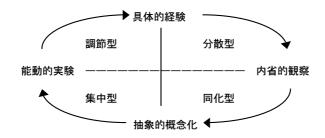


図 1: KolbのExperiential Learning Theory と学習スタイル

Kolbは2本の軸の両端にある4つの極を「学習能力」とし、4つの象限が「学習スタイル」に当たるとしている。4つの学習能力は、Kolbによれば学習の4つの段階を表すもので、まず初めに具体的に経験し(Concrete Experience: CE)、経験を内省して観察し(Reflective Observation: RO)、そして理論や抽象的概念の構築をし(Abstract Conceptualization: AC)、最後に実験を通して理論を試すものである(Active Experimentation: AE)。そして実験は具体的経験をもたらすため、サイクルはまた繰り返されるという。

2本の軸によって分けられる4つの象限が示す学習スタイルは、上のサイクルに沿って「分散型(Diverger)」「同化型(Assimilator)」「集中型(Converger)」「調節型(Accommodator)」の4つである。「分散型」は特定の経験について多くの異なる見方から考え、「同化型」は内省から理論的枠組みを組み立てる。「集中型」は理論を実際に試してみて、「調節型」は理論を試した結果を新しい経験に適用して学習を進めていく。サイクルの各段階では異なる能力が求められるが、人は普通いくつかの能力が他の能力より優れているので、特定の学習スタイルを好むことが多い。

## Experiential Learning Theoryに基づく調査票

Experiential Learning Theoryに基づいて作成された学習スタイル調査票は2つある。その概略と問題点をまとめてみる。

## The Learning Style Inventory (LSI)

まず1つはKolbによって作成された The Learning Style Inventory (LSI) である。LSIは1976年に初版が作られ、1985年に Version 2 が、1999年にはVersion 3が作成されている (Kolb, 1999)。学習スタイルの測定法を用いた研究を概観した Curry (2000)によれば、現在最も用いられてい

る測定法の1つである。

LSIでは、回答者は調査票に書かれている学習場面についての12の文を完成することを求められる。具体的にはまず文の前半を読み、後に続く4つの言葉を見て自分の学習傾向に当てはまる順に1から4の順番をつけるという形をとる。

171

例:わたしは学習するとき

感覚的に学ぶ 2 見て学ぶ 4 考えて学ぶ 1 やってみて学ぶ 3

後半の言葉は4つの学習能力(CE、RO、AC、AE)に対応する4つの言葉であり、12の文をすべて完成したら回答を集計する。そして点数の高い2つの学習能力の間にあたる象限がその人の学習スタイルとされる。さらに4つの学習能力の点数を用いて行動一内省の強さと抽象一具体の強さを計算する。このようにして個人の好む学習スタイルを特定するのである。

LSIの妥当性・信頼性については疑問を投げかける研究者もいる。Loo (1996) は因子分析を行って2つの因子を見出したが、その2つの因子では全体の32.1%しか説明できなかった。さらに4つの学習能力と対応させるため4つの因子で分析した結果、ROとCEの項目で第1因子、AEの項目で第2因子、ACとCEの項目で第3因子、第4因子が構成されており、4つの学習能力は明確には現れなかった。同様の他の研究(Willcoxson & Prosser, 1996; Willson, 1986)でもはっきりとした結果が出なかった。また、強制的に順位をつけさせた回答をもとに因子分析を行うという方法自体を疑問視する研究者もいる。LSIでは回答者に強制的に1から4の順位をつけさせるので、質問項目への回答の合計が10(1+2+3+4)になる。これを因子分析で分析すると人工的に両極化された因子構造が出て、両極化した因子が予測されない場合でも両極化した因子が生み出されてしまうというのである(Comwell & Dunlap, 1994; Loo, 1999)。

#### Learning Styles Questionnaire (LSQ)

LSIの問題点を踏まえ、HoneyとMumfordによって作成されたのがLearning Styles Questionnaire (LSQ)である(Honey & Mumford, 1995)。 LSIは抽象的な言葉を用いているのに対し、LSQは職場や学校などの実際の活動場面を表した質問項目を備えている。またLSQは行動を決める心理学的な部分ではなく、観察できる行動そのものに焦点を当てている(図2)。

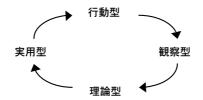


図 2: Honey & Mumford のLearning Styles Questionnaireの学習サイクル

LSQは80の質問項目について回答者が賛成か反対かをチェックする形式である。80の質問項目は特定の学習スタイルを測る各20項目の4つのグループから成っており、ランダムに配置されている。4つのスタイルはKolbの4つの学習能力にほぼ一致している。「行動型(Activist)」は柔軟性に富み、新しい経験をしながら学んでいき、「観察型(Reflector)」は物事を様々な視点から観察したりデータを集めたり分析したりして学ぶ。「理論型(Theorist)」は観察を概念的な枠に統合していくことから学び、合理性や論理を重視する。「実践型(Pragmatist)」は概念や理論や技術が実際にうまく使えるかどうかを試して学び、決定や問題解決を行う。

LSQはKolbのLSIよりも信頼性、妥当性が高い(Sadler-Smith, 2000)。 最近ではLSQの方がLSIよりも多く用いられている(Loo, 1999)。しか し、LSQの調査票としての妥当性・信頼性を分析した研究(Allinson & Hayes, 1988)では、因子分析を行った結果、本来LSQで想定されている ような因子は抽出できず、予測的妥当性(predictive validity)についても 問題が残る結果となった。

#### 問題と目的

以上のようなことを踏まえた上で筆者はLSIとLSQを日本語に翻訳し、イギリス留学経験のある日本人大学院生1名のチェックを受け、調査票作成についての講義を受けた日本人大学院生7名に予備調査を行い、面接法で感想を求めた。その結果上記の問題以外の問題点が見出された。

まず、LSIでは強制的に順位をつけるという問題点である。回答者によっては、1位と2位はつけられても3位と4位はつけにくいとか、1位と2位の間は近く感じても3位と4位の間は遠いように感じて1位から4位までの順位がつけにくいという場合がある。

一方、LSQでは質問の意味があいまいだという問題点がある。質問に回答する際、学習の場面のみについて答えるのか、それ以外の生活場面のことも含めるのかが明記されていないため、回答があいまいになる項目が多くなる。また、たとえ学習に限定したとしても、数学の場合と外国語の場合ではアプローチが異なると感じられ、回答に揺れが出る。そ

の上、質問項目に書いてあるようにしたいが実際にはできないというように、好みと実際の行動が異なる場合どう答えるべきか迷う。

さらに、LSIでもLSQでも問題となったのは項目の解釈の問題である。「When I learn I feel personally involved in things.」など、英語母語話者でなければ感覚が把握しにくい項目があり、翻訳ではその感覚が分かりにくかった。このような問題についてEliason(1995)は、英語を母語とする人に対する調査では信頼性と妥当性があったとしても、そうではない人に対しては信頼性と妥当性があるとは限らないと指摘している。

以上のようにLSI、LSQは信頼性・妥当性が保証されているとは言えない。また、日本とは異なる文化圏で作成された調査票なので、そのまま翻訳して日本で用いるのは問題がある可能性がある。本研究では、日本人に対する外国語学習スタイル調査票をELTに基づいて新たに作成して調査を行い、ELTが日本人にも当てはまるか否かを検証する。

#### 方法

予備調査の結果より、LSIやLSQをそのまま翻訳して調査を行うのは問題があると考えられたため、新しい調査票は以下のように作成した。回答形式は、LSIのような強制順位付けという形式ではなく、「0=全く当てはまらない」から「6=非常によく当てはまる」の7段階評定で回答する形式にした。質問項目は、LSIをそのまま翻訳すると解釈に問題が生じる場合があるため、LSIの48項目<sup>1</sup>をもとにしながらも、学習全般ではなく外国語学習に限り、好みではなく行動に焦点を当て、Kolb(1984)のELTの4つの軸の特徴(表1)と考え合わせて作成した<sup>2</sup>。その際、LSQの質問項目も参考にした。このようにして作成した48項目をランダムに並べ、調査票を完成させた。

調査票は2001年2月から5月にかけて日本国内の2つの国立大学で学ぶ大学生に配布した。220名(男性146名、女性74名)から回答を得たが、そのうち2名には欠損値があったため218名分を分析に用いた。

# 表 1: KolbのExperiential Learning Theory (ELT) の 4 つの軸の特徴

#### 具体的経験

具体的な経験から学ぶ すぐに新しいことに挑戦する 物事を直感的に判断する 理論や一般性よりも事実を重視する 思考よりも感覚を大切にする まず行動し、結果は後から考える

#### 内省的観察

行動よりも内省を重視する 多くの情報を集めて熟考する 1つの問題を多くの視点から考える 多くのアイデアを生み出す 想像力が豊かである 注意深く観察し、状況の意味を理解する

#### 能動的実験

実用性を重視する 理論が実際に使えるかどうかを試す 新しいアイデアを実験し応用する 課題達成を優先する 1つの正しい答えやよりよい方法を求める 決断が早く、自信をもって行動する

#### 抽象的概念化

普遍的な論理の構築を大切にする 論理的に正しいことを重視する 物事を分析することを好む 感覚よりも思考を大切にする 体系的なものを好む 客観的で確実なものを好む

# 分析

Kolb(1984)もHoney and Momford(1995)も直交し両極化した2本の軸を想定していた。本研究でもこれらの研究を踏襲し、まず2因子解・バリマックス回転で因子分析を行う。ELTが正しければ2つの因子のそれぞれに正と負の負荷がかかるような構造が見出されるはずである。そうなれば、このような軸が日本人大学生にも存在すると考えられる。

データの解析には、統計パッケージSPSS for Windows (9.0) を用いた。全48項目の記述統計が表2である。なお、表2にある歪度と尖度はともに正規分布からどの程度外れているかを表すものであるが、SPSSでは0を基準としているので絶対値が0に近いほど正規性が高い。本研究ではすべての項目が正規分布から大きく外れるものではないと判断された。しかし、その後に行う因子分析の性質上、相関係数が低いものは分析を行う際に項目として不適当であるため、相関係数rの絶対値の最大値を求め(表2)、これが.35を下回る項目を削除し、31項目を分析の対象とした。

表 2: ELTに基づく調査票全48項目の記述統計 (N=218)

	項目	平均値	SD	歪度	尖度	max ¦r¦
2	いろいろと考えるよりも直感的に判断する	3.44	1.70	-0.17	-1.00	0.63
19	直感に頼るよりも細かく分析して考える	2.65	1.41	0.20	-0.35	0.63
7	論理的に正しいことを一番大切にする	3.49	1.65	-0.05	-0.83	0.54
14	論理的に納得できるまで考える	3.60	1.59	-0.31	-0.50	0.54
35	課題をする際、初めに手順を決めずにその場その場で					
	決めていく	3.28	1.58	-0.15	-0.61	0.52
45	課題を始める前にどのような手順でするか決める	3.00	1.50	-0.05	-0.58	0.52
21	実際に使える状況がすぐに思い浮かべられる	2.60	1.45	0.23	-0.37	0.51
44	新しいことを勉強したら実際にどのように使えるのか 考える	3.45	1.40	-0.35	-0.01	0.51
46	いろいろと考えた方がいいと思うので、結論は慎重 に出す	3.36	1.46	-0.23	-0.40	0.47
47	目標に向かって一歩一歩段階的に進めていく	3.45	1.45	-0.37	-0.20	0.47
31	目標を立てて意欲的に取組む	3.26	1.44	-0.23	-0.45	0.47
37	実際に使って自然に身につけていく	2.84	1.60	0.18	-0.71	0.47
17	1つ1つ確実に理解していく	3.31	1.49	-0.08	-0.64	0.46
18	課題をする際、どのような結果になるのかを考えてから始める	2.69	1.44	0.14	-0.49	0.45
16	今までとは違う新しいことに挑戦する	2.85	1.53	-0.03	-0.67	0.45
20	うまくいくかどうか分からなくてもいろいろな方法 を試す	3.25	1.45	-0.10	-0.51	0.45
	課題を達成するために一番いい方法を考える	3.63	1.46	-0.23	-0.32	0.44
15	必要な情報を教師、友人、本などからできるだけ集める	3.31	1.54	-0.14	-0.54	0.44
10	勉強していることばでコミュニケーションしているところを					
	想像している	2.72	1.80	0.11	-1.07	0.44
	文法の規則に従って考える	3.63	1.47	-0.52	-0.07	0.43
	あいまいな点があるとなかなか先に進めない	3.63	1.70	-0.45	-0.62	0.42
	慣れない方法でも柔軟に対応できる	2.45	1.37	0.25	-0.34	0.42
	1つの正しい答えを求める	2.93	1.68	-0.06	-0.69	0.39
	新しく学んだことを体系的に整理する	3.45	1.36	-0.04	-0.58	0.39
	規則が分かったら他の場合にも適用する	4.21	1.14	-0.74	1.13	0.39
	答えを決める前にいろいろな選択肢をよく比べる	3.80	1.45	-0.55	0.10	0.38
	多くの具体例を集めて考える 課題 (作文や発表など)をするときは準備に時間を	3.28 3.43	1.34 1.78	-0.01 -0.31	-0.31 -0.98	0.38 0.37
8	かける 間違いを気にせずやってみる	3.22	1.62	0.04	-0.92	0.37
	思いついたことは深く考える前にことばにする	2.82	1.64	0.26	-0.32	0.37
	具体例から規則を見つけ出そうとする	4.09	1.04	-0.52	-0.79	0.37
14	スrrvin りが別で九つり山(ノCりる	4.09	1.31	-0.52	-0.09	0.55

表2	(続き)

48	自分が考えたことが正しいかどうか試す	3.65	1.43	-0.56	0.17	0.33	
1	実用的であることを一番大切にする	4.21	1.40	-0.62	0.09	0.33	
11	細かいことが分からなくても全体が大きくつかめる	3.90	1.41	-0.41	-0.48	0.33	
38	ことばの裏にある意味を考える	3.04	1.59	-0.17	-0.64	0.33	
6	1つのことについていろいろな視点から考える	3.18	1.51	-0.08	-0.46	0.32	
5	自分で規則を見つけながら勉強する	4.10	1.45	-0.73	-0.06	0.32	
28	課題を素早く終わらせることができる	2.55	1.62	0.30	-0.67	0.32	
29	後で役に立つかどうかよりも、今楽しいことを大切 にする	3.13	1.55	0.10	-0.48	0.31	
42	自分でやってみるよりも、他の人がやっているのを見 ている	2.84	1.38	0.27	-0.22	0.29	
4	効果的な方法だと思ったらずっとそれを使う	4.39	1.36	-0.82	0.35	0.29	
39	ことばの構造に興味がある	2.95	1.81	-0.08	-1.06	0.29	
26	実際の状況が想定できないと理解しにくい	3.77	1.49	-0.38	-0.42	0.27	
27	勉強していることはすべて重要だと考える	2.69	1.76	0.16	-0.92	0.25	
43	詳しい説明よりも要点を押さえた説明を求める	4.03	1.48	-0.65	-0.19	0.24	
23	方法がどうであれ、課題を達成することを大切にする	3.67	1.47	-0.33	-0.36	0.23	
40	決まった言い方は分析せずにそのまま覚えて使う	3.64	1.63	-0.26	-0.75	0.21	

#### 結果

まず因子数を指定せずに主成分法による因子分析を実行したところ、固有値1.0以上の9因子解が得られた(表3)。しかし2本の軸を想定するELTにしたがって、まず2因子解・バリマックス回転で分析を行ってみた。その結果2因子解では第1因子、第2因子ともに大きく負の負荷がある項目は見られず、軸は両極化しているとは言えなかった。4因子解でも分析を実行したが、ELTに基づく項目のみで構成される因子はなかった。

表3: 31項目(|r|>.35)に主成分法を適用した際の初期の固有値 (N=218) (第10成分以下は省略)

成分	1	2	3	4	5	6	7	8	9
合計	5.70	3.98	2.13	1.65	1.50	1.19	1.15	1.11	1.03

そこでELTから離れて分析を行うことにした。第5因子以下の固有値の変化が比較的小さかったため5因子解とし、また因子間に相関があると考えられたため、軸を斜交して回転するプロマックス回転を用いて分析を行った。その結果が表4、また5因子の因子間相関が表5である。

表4: 主成分法・プロマックス回転後の因子分析結果 (因子パターン行列と共通性) (N=218)

		I	II	Ш	IV	V	h 2
<u> </u>	熟考因子 (α=.77)	1	ш	ш	11	v	11 4
-	無男の J (α=.11) 課題を始める前にどのような手順でするか 決める	0.78	-0.19	0.00	0.26	0.01	0.59
35	課題をする際、初めに手順を決めずに・・・	-0.74	0.29	0.02	0.10	-0.03	0.42
46	いろいろと考えた方がいいと思うので、結論は	0.68	0.03	-0.13	0.07	0.07	0.53
47	日標に向かって一歩一歩段階的に進めて いく	0.61	0.13	0.28	-0.09	-0.08	0.50
3	課題(作文や発表など)をするときは準備 に・・・	0.59	0.01	0.03	-0.19	-0.07	0.37
18	課題をする際、どのような結果になるのか を・・・	0.56	0.10	0.03	0.24	-0.25	0.40
31	目標を立てて意欲的に取組む	0.45	0.02	0.42	0.13	0.04	0.43
2	いろいろと考えるよりも直感的に判断する	-0.37	-0.21	0.08	0.28	0.09	0.37
32	文法の規則に従って考える	0.35	0.29	-0.10	-0.22	0.29	0.53
II	論理因子 (α=.76)						
14	論理的に納得できるまで考える	-0.18	0.77	0.00	0.07	0.18	0.57
7	論理的に正しいことを一番大切にする	-0.21	0.76	-0.05	0.07	0.10	0.50
9	1つの正しい答えを求める	-0.07	0.76	-0.15	0.15	-0.25	0.53
17	1つ1つ確実に理解していく	0.32	0.51	0.20	-0.04	0.01	0.55
36	あいまいな点があるとなかなか先に進め	0.22	0.45	0.04	-0.21	-0.10	0.39
19	ない 直感に頼るよりも細かく分析して考える	0.38	0.40	-0.03	-0.08	0.06	0.50
III	実用因子 (α=.75)						
21	実際に使える状況がすぐに思い浮かべら	-0.01	0.04	0.77	0.07	0.01	0.63
44	れる 新しいことを勉強したら実際にどのよう に・・・	0.19	-0.18	0.73	-0.02	0.15	0.59
10	勉強していることばでコミュニケーショ ン···	0.01	-0.03	0.71	-0.06	0.02	0.48
37	実際に使って自然に身につけていく	-0.13	-0.01	0.62	0.27	-0.04	0.57
IV	挑戦因子 (α=.65)			_			
	今までとは違う新しいことに挑戦する	0.16	0.13	0.11	0.69	-0.14	0.54
20	うまくいくかどうか分からなくてもいろい ろな・・・	-0.04	-0.04	-0.09	0.65	0.13	0.45
22	慣れない方法でも柔軟に対応できる	-0.04	-0.01	0.25	0.56	0.00	0.46
15	必要な情報を教師、友人、本などから・・・	0.23	0.27	-0.08	0.53	0.14	0.53
8	間違いを気にせずやってみる	-0.16	-0.29	0.01	0.48	0.05	0.40
13	課題を達成するために一番いい方法を考	0.15	0.26	-0.22	0.42	0.23	0.44
33	える 思いついたことは深く考える前にことば にする	-0.33	0.14	0.20	0.41	-0.06	0.32

表/	4 (続き)						
衣4							
V	秩序因子 (α=.67)						
41	規則が分かったら他の場合にも適用する	-0.29	0.09	0.23	-0.17	0.70	0.52
12	具体例から規則を見つけ出そうとする	-0.11	0.04	-0.04	0.03	0.66	0.43
30	多くの具体例を集めて考える	0.04	-0.07	0.02	0.13	0.65	0.47
24	新しく学んだことを体系的に整理する	0.00	0.25	0.12	-0.03	0.59	0.50
25	答えを決める前にいろいろな選択肢をよく	0.31	-0.28	-0.11	0.16	0.56	0.47
	比べる						

注:各項目の正確な文章については表2参照

表 5: 主成分法・プロマックス回転後の因子間相関行列

因子	1	2	3	4	5
1	1.00				
2	0.51	1.00			
3	-0.05	-0.06	1.00		
4	0.02	-0.06	0.26	1.00	
5	0.23	0.23	0.06	0.23	1.00

第1因子は「課題を始める前にどのような手順でするか決める」、「いろいろと考えた方がいいと思うので、結論は慎重に出す」など慎重に決断し一歩一歩学習を進めていくことから「熟考因子」と名づけられる。第2因子は「論理的に納得できるまで考える」、「論理的に正しいことを一番大切にする」など論理性、正確性を大切にすることから「論理因子」と名づけられる。第3因子は「実際に使える状況がすぐに思い浮かべられる」、「新しいことを勉強したら実際にどのように使えるのか考える」など実際に使用することを常に考えていることから「実用因子」と名づけられる。第4因子は「今までとは違う新しいことに挑戦する」、「うまくいくかどうか分からなくてもいろいろな方法を試す」など新しいことに柔軟に対応し、行動して問題解決にあたることから「挑戦因子」と名づけられる。第5因子は「具体例から規則を見つけ出そうとする」、「規則が分かったら他の場合にも適用する」、など多くの情報から規則を見出し、体系的に整理して適用しながら学んでいくことから「秩序因子」と名づけられる。

各因子の内的一貫性を検討するためにクロンバックの  $\alpha$  係数を求めた結果、「熟考因子」で.77、「論理因子」で.76、「実用因子」で.75、「挑戦因子」で.65、「秩序因子」で.67の値が得られた。5因子のすべてについて内的一貫性が認められたと言えよう。また表5より因子間に正

の相関が見られるものがあるが、負の相関はないに等しい。そのため Kolbの想定した両極化した2つの軸があるのではなく、すべての因子が 多少の相関をもちながら独立して存在すると考えられる。

# 考察

以上、本研究で新たに抽出されたのは、Kolbのものとは異なる「熟考」、「論理」、「実用」、「挑戦」、「秩序」という5つの因子であった。これらを外国語の学習スタイルとすると、5つのスタイルは以下のように解釈できる。

「熟考」スタイルが強い学習者は目標に向かって一歩一歩進んでいくの に対し、弱い学習者は直感的で場当たり的な方法をとると考えられる。「論 理」スタイルを強く持つ学習者は論理的であることを重視して1つの正しい 答えを探しながら学んでいくが、もたない学習者は論理的には考えず、直感 や暗記に頼るような学習を行うことが予想される。「実用」スタイルが強い 学習者は想像力が豊かで実際の場面で積極的に言葉を使うことによって身に つけていくのに対し、弱い学習者は実用性をあまり重視しないと考えられ る。「挑戦」スタイルが強い場合は新しいことに柔軟に対応して経験か ら学んでいけるのに対し、逆の場合は消極的で受身的な学習を行う。そ して「秩序」スタイルが強いと多くの情報を体系的に整理して規則を応 用して学んでいけるが、弱い場合は自分で多くの情報から規則を見出す ことや規則を応用して学ぶことが困難であると予想される。学習スタイ ルはあるものが他のものより優れているということはないため、上記の すべての外国語学習スタイルが重要であると言える。したがって、いず れかのスタイルが弱い学習者は外国語学習に何らかの問題を抱えている と考えられる。

# 結論

本研究ではKolbのELTに基づいて外国語学習スタイル調査票を日本語で作成し、日本人大学生に対して調査を行った。分析には因子分析を用い、2因子解と4因子解で分析を行ったが、Kolbが想定しているようなプラスマイナスをもつ2つの軸や4つの学習スタイルの存在は認められず、独立して存在する5つの因子の存在が確認された。このことはELTに基づく調査票を日本人大学生に使用し、結果をそのまま解釈するのは問題があるということを示している。

本研究には調査票の項目が不適当でELTを反映できていないのではいかという批判もあるかもしれない。しかし、因子分析で抽出された5因子はそれぞれ独立していて内的一貫性も認められるため、日本人大学生にはELTとは異なる学習スタイルが存在する可能性が高い。しかしながらこのことからすぐにELTを否定することはできない。なぜならKolbは

学習全般の学習スタイルを扱っているが、本研究では外国語学習に限ったために5つの因子が抽出されたとも考えられるからである。もしこの考え方が正しいとすれば学習全般の学習理論とは別に外国語学習の学習理論が存在することになる。また他の可能性として、本研究の結果とELTは学習スタイルを少し異なる視点からそれぞれ捉えており、どちらも学習スタイルの異なる側面を捉えているという可能性、さらに大きな視点から見ると両者を包括するような枠組みが存在するという可能性も考えられる。このように様々な可能性が考えられることから、今後はこうした可能性を視野に入れた研究が必要であると思われる。

#### 筆者略歷

1996年3月に東北大学にて修士(日本語教育学)取得後、韓国(1年)、 タイ(2年)で日本語を教える。2000年4月に同大学院博士課程に入学、日 本語学校で教えながら研究を進めている。日本学術振興会特別研究員。

#### 注

- 1 LSIでは質問項目は12項目であるが、それぞれ1位から4位まで の強制順位付けを行うため48の文章を作成していることになる。
- 2表1に対応すると考えられた項目は、表2の項目番号では以下の通り。

CE: 2,8,11,16,20,22,26,29,33,35,37,40 RO: 3,6,10,15,21,25,27,30,34,38,42,46, AC: 5,7,12,14,17,19,24,32,36,39,45,47 AE: 1.4,9,13,18,23,28,31,41,43,44,48

# 参考文献

- Allinson, C.W., & Hayes, J. (1988). The learning styles questionnaire: An alternative to Kolb's inventory? *Journal of Management Studies*. 25,3, 269-281.
- Allport, G.W. (1937). Personality: A Psychological Interpretation. NY: Holt & Co.
- Cornwell, J.M., & Dunlap, W.P. (1994). On the questionable soundness of factoring ipsative measures data: A response to Saville & Willson (1991). *Journal of Occupational and Organizational Psychology*, 67, 89-100.
- Curry, L. (2000). Review of learning style, studying approach, and instructional preference research in medical education. In R.J. Riding & S.G. Rayner (Eds.), *International Perspectives on Individual Differences* (pp.239-276). Stamford, CT: Ablex.
- Eliason, P.A. (1995). Difficulties with cross-cultural learning-styles assessment. In J. Reid (Ed.), *Learning Styles in the ESL/EFL Classroom* (pp.19-33.), Boston. MA: Heinle & Heinle.

Honey, P. & Mumford, A. (1983). *The Manual of Learning Styles*, Maidenhead, Berkshire, England: Ardingly House.

- Honey, P. & Mumford, A. (1995). *The learning styles questionnaire: Facilitator guide* (3rd ed.). King of Prussia, PA: Organization Design and Development.
- Kolb, D.A. (1984). Experiential Learning. Englewood Cliffs, NJ: Prentice Hall.
- Kolb, D.A. (1999). Learning Style InventoryIII. Boston, MA: Hay Group.
- Loo, R. (1996). Construct validity and classification stability of the revised learning style inventory (LSI-1985). *Educational Psychological Measurement*, 56, 529-536.
- Loo, R. (1999). Confirmatory factor analyses of Kolb's learning style inventory (LSI-1985). *British Journal of Educational Psychology*, 69, 213-219.
- Reid, J.M. (Ed.). (1998). *Understanding Learning Styles in the Second Language Classroom*. Upper Saddle River, NJ: Prentice-Hall.
- Riding, R.J. & Cheema, I. (1991). Cognitive styles—An overview and integration. *Educational Psychology*, 11, 193-215.
- Sadler-Smith, E. (2000). Cognitive style and learning in organizations. In R.J. Riding & S.G. Rayner (Eds.). *International Perspectives on Individual Differences* (pp.181-214.). Stamford, CT: Ablex.
- Willcoxson, L. & Prosser, M. (1996). Kolb's learning style inventory (1985): Review and further study of validity and reliability. *British Journal of Educational Psychology*, 66, 247-257.
- Willson, D.K. (1986). An investigation of the properties of Kolb's learning style inventory. *Leadership and Organization Development Journal*, 7, 3, 3-15.

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# Representation of Users and Uses of English in Beginning Japanese EFL Textbooks

# Aya Matsuda

University of New Hampshire

This study explores the representation of English users and uses in Japanese EFL textbooks for seventh graders that have been approved by the Ministry of Education. Analysis of the nationality of the main characters and the contexts and types of English use featured in the chapters suggests that the textbooks tend to emphasize the inner circle (Kachru, 1985) both in intranational and international use. The representation of users and uses in other contexts, particularly of those in the outer circle, is much more limited despite the growing recognition of the spread of English and the increased use of English outside of the inner circle (Crystal, 1997; Graddol, 1997). Based on the findings, I discuss the extent to which these textbooks represent the current global uses and users of English, consider the appropriateness of the representation, and suggest ways to help English learners become more aware of the sociolinguistic complexity of the English language.

本研究では、中学一年生対象の検定教科書7冊において、英語使用者および用途がどのように表現されているかを調査した。登場人物の国籍と各課に含まれる英語使用の状況と種類を分析したところ、国内言語・国際言語両方の使用においてInner Circle (Kachru, 1985)の英語話者と彼らの英語使用に重点をおく傾向があることがわかった。同時に、それ以外の状況、特にOuter Circle での英語使用と英語話者は、教科書内での表現はあまりみられなかった。本論文では、この結果をふまえ、教科書が現在世界における英語が果たしている役割をいかに正確に表しているかを議論し、その適切さを考察するとともに、英語の複雑な社会言語学的背景の理解を促す方法を提示した。

nglish performs a wide variety of functions in different parts of the world. In the *inner circle* (i.e., Australia, Canada, New Zealand, the United Kingdom, and the United States) (Kachru, 1985), Matsuda 183

the majority of people learn English as their first language. Even when they speak another language at home, English is likely to become their dominant language because of the extended exposure to the language outside the home and the numerous functions the language performs in society. In *outer circle* countries and regions such as India, Singapore, and Nigeria, which are former colonies of inner circle countries, English is institutionalized. That is, English has acquired an extended range of uses in intranational communication (e.g., language of law, medium of education), linguistic nativization has taken place, and literary works are created in that variety of English, although other languages (usually indigenous languages) still maintain important functions (Kachru, 1992). In the *expanding circle*, people learn English as a foreign language and use it predominantly for international, rather than intranational, communication. Furthermore, English does not have the extended functions it has in the inner or outer circle.

In addition to the increase in its functions, the worldwide spread of English has changed the demographics of the population of English users. English is not used exclusively among native English speakers or between native and nonnative English speakers anymore, but also often for communication among so-called nonnative speakers of English (Graddol, 1997; Smith, 1983; Widdowson, 1994).¹ Because it is increasingly used among people who were traditionally regarded as nonnative speakers, i.e., speakers from the outer and expanding circles, the assumption that nonnative English speakers learn English in order to communicate with native English speakers and learn about their culture does not always hold true anymore. In fact, the role of nonnative speakers in shaping the form and functions of the English language has increased. As Graddol (1997) states, "native speakers may feel the language 'belongs' to them, but it will be those who speak English as a second or foreign language who will determine its world future" (p. 5).

This worldwide spread and the consequent changes, such as the expansion and complications in the variety of uses and the increasing uses among nonnative speakers, are important characteristics of the English language. Consequently, acknowledging all of these functions of the language is essential for understanding the sociolinguistic complexity of the English language.

However, in Japan and perhaps also in other countries in the expanding circle, many English learners and even some teachers still perceive English exclusively as the language of the inner circle and the purpose of learning English to be merely to access the inner circle culture. For

instance, a qualitative case study of Japanese secondary school students (Matsuda, forthcoming) suggested that, although they perceived English to be an international language in the sense that it is being used internationally, they did not believe it belonged to the world at large. Rather, the students perceived the language as the property of native English speakers (Americans and British, more specifically) and believed that the closer they followed native speakers' usage, the better. Their awareness of outer circle countries, including the forms and functions of English used in them, was extremely limited (see Friedrich, 2000, for a similar example from Brazil).

The picture of English uses and users that these Japanese students had is incomplete in the sense that it does not acknowledge the increase in the use of English among so-called nonnative speakers of English, and thus is problematic for several reasons. First, if students do not understand the significance of the uses of English among nonnative speakers, they cannot fully take advantage of the opportunities that accompany the use of English as an international language. Instead, students may assume that English belongs to the inner circle and that others, who are expected to conform to inner circle norms, should remain in an oppressed, peripheral position in international communication in English.

Secondly, such a limited perception of the English language may lead to confusion or resistance when students are confronted with different types of English users or uses (e.g., users from the outer circle). Students may be shocked by varieties and uses of English that deviate from the inner circle English, view them as deficient rather than different, or be disrespectful of such varieties and uses. Lastly, a limited understanding of the users and uses of the language may have a negative effect on language acquisition. A language is not merely a combination of discrete linguistic and metalinguistic knowledge, but rather, it is a dynamic system embedded in a social context (Halliday, 1978; Berns, 1990). Therefore the awareness of the context of English, including its worldwide spread, the consequent diversity in its forms and functions, and its increased use among so-called nonnative speakers, can be considered crucial for understanding and acquiring the language.

One of the possible sources of influence on students' perception of English is their English class, where students are intensively exposed to the target language. Textbooks, in particular, can be a significant source of exposure to various users and uses of English and may play a vital role in the construction of students' perceptions of the English language because they play an important role in EFL classrooms. Hino (1988), in

his study of the representation of nationalism in Japanese EFL textbooks from different historical periods, argued that textbooks not only disseminate knowledge but also express, reinforce, and construct a certain view of the world. Such influence may be especially strong in Japan, where textbooks, which are approved by the national government and selected by the local school district, have institutional authority and where classroom lessons tend to be constructed closely around the textbooks. In addition, EFL students tend to perceive their textbooks as high prestige sources of input because they do not receive much input outside the classroom (Bardovi-Harlig, 1996). All these factors make textbooks an influential source of input for students and a logical place to begin an inquiry about the presentation of English in Japanese EFL classrooms and the construction of students' beliefs and perceptions of the English language.

The current study explores the representation of English users and uses in beginning EFL textbooks used in the first year of junior high school (7th grade) in Japan. Specifically, the following research questions were investigated:

- 1. What kinds of people are represented as English users in 7th-grade Japanese EFL textbooks?
- 2. What kinds of English uses are represented in these textbooks?

Based on the findings, I will discuss how thoroughly these textbooks represent the current global uses and users of English, consider the appropriateness of the representation, and suggest ways to help English learners raise their awareness of the sociolinguistic complexity of the English language.

# Methodology

#### Textbook Selection

The current study analyzed all seven 7th-grade textbooks that were approved by Monbusho<sup>2</sup> (the Ministry of Education) in 1996 and were in use from April 1997 to March 2002.

Table 1: List of Textbooks

Title	Publisher
Columbus English Course 1 (CO) Everyday English 1 (EE) New Crown English Series New Edition 1 (NC) New Horizon 1 (NH) One World 1 (OW) Sunshine 1 (SS) Total English 1 (TE)	Mitsumura Tosho Chukyo Shuppan Sanseido Tokyo Shoseki Kyoiku Shuppan Kairyudo Shubun Shuppan

I chose to analyze Monbusho-approved textbooks because of the significant role they play in English classrooms across the country. All public elementary and secondary schools in Japan are required to follow the national curriculum and use textbooks that are approved by the Ministry of Education. Even private schools, which are not required to follow the national curriculum, often adopt a Monbusho-approved textbook as one of their primary textbooks. Therefore, virtually all secondary school students, including the participants of the aforementioned study on the perception of the ownership of English (Matsuda, forthcoming), come in contact with Monbusho-approved textbooks in their English classes.

In addition, because the Monbusho only approves textbooks that closely follow the national curriculum, the approved textbooks often become the curriculum itself. Even at private schools, where more flexibility is allowed in the selection of teaching materials than in public schools, some lessons follow the structure of Monbusho-approved textbooks closely and do not involve any outside materials (see Matsuda, 2000a). While I would not claim that this is the case for all English curricula in Japan, it can be said that Monbusho-approved textbooks play a large role in the EFL curriculum at Japanese secondary schools, and that is the primary reason for selecting Monbusho-approved textbooks for the current study.

Among all Monbusho-approved English textbooks, seventh-grade textbooks were selected because they provide the first formal encounter that most students have with English, and thus the explicit and implicit messages they send about the users and uses of English potentially have a strong influence on students' perceptions of English.

The contents of all seven textbooks that were reviewed are organized

Matsuda 187

in a similar manner. Each has 11 to 15 chapters consisting of the main text (usually a dialogue that introduces new vocabulary and sentence structures) and tasks related to the new function or sentence structures introduced in the main text. Summaries of grammar points and informational notes about English speaking cultures are presented at the end of each chapter, after every few chapters, or at the end of the textbook. Additional readings, poems, songs, word lists, alphabet tables, and pronunciation guides are found between chapters or at the end of the textbook.

# Analysis

In order to understand the representation of users and uses of English in Japanese EFL textbooks, the main characters in the textbooks and the contexts and types of English uses presented in the chapters were investigated.

The first research question of the study was "What kinds of people are represented as English users in seventh-grade Japanese EFL textbooks?" In order to answer this question, I identified the nationality of the main characters, who were introduced in the early sections of each textbook before the regular chapters began. I also counted the number of words uttered by each character.

The second research question was "What kinds of English uses are represented in seventh-grade Japanese EFL textbooks?" To address this question, the contexts and types of English uses represented in the main texts of the chapters were identified and analyzed. The analysis of the contexts involved the identification of countries in which characters used English. The contexts represented in the textbooks included (1) Japan, (2) inner circle countries, (3) outer circle countries, (4) expanding circle countries other than Japan, (5) multiple contexts (e.g., international phone calls and letters that involved more than one of the above four contexts), (6) fictional contexts (e.g., in a time machine), and (7) unknown/no context (e.g., introduction of numbers). For each context type, I counted the number of chapters that included English uses taking place in that context. Dialogues on an international flight were categorized by the country of destination.

Types of English use can be defined and classified in various ways, but in this study, I decided to focus on whether the use is intranational or international. Intranational use in this study is defined as the use of English between people from the same country, while international use refers to use between people from different countries. Intranational use

is further divided into three types: between people from the same *inner* circle country, between people from the same *outer* circle country, and between people from the same *expanding* circle country. International use is also further divided into three types: between people from different inner circle countries (i.e., native speakers from different countries), between native speakers and nonnative speakers (i.e., people from the outer or expanding circle) of English, and exclusively among nonnative speakers of English<sup>3</sup>. Figure 1 illustrates the six types of English uses whose representation was investigated in this study.

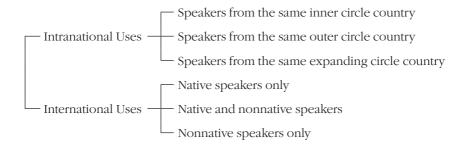


Figure 1: Types of English Uses

To test the reliability of the coding scheme for the analysis of contexts and types of uses, I trained an outside coder and asked him to analyze one textbook with 13 chapters (14.6% of all chapters analyzed). Interrater agreement figures of 0.94 and 0.93 were achieved for the analysis of contexts and the analysis of types of uses, respectively.

Furthermore, the additional reading passages, poems, songs, word lists, cultural notes, and pictorial images were also studied in order to supplement the analysis.

#### Results and Discussion

Nationality of the Main Characters

Table 2 shows where the main characters in each textbook came from and the number of words uttered by those characters in the main text.

Textbook IC Japan OCEC Other than Japan Unknown CO 9 (456) 4 (586) 0 0 0 EE 3 (463) 4 (341) 0 1(120)2 (88) NC 10 (582) 1 (212) 1(70)3 (81) () 3 (258) 3 (258) 1(218)NH 0 0 OW2 (348) 5 (396) 1(143)0 1(17)SS 4 (257) 9 (523) 0 0 0 4 (758) TE 3 (480) 0 0 0 5 (419) Total 34 (2844) 30 (3074) 2(213)3 (105)

Table 2: Nationality of the Main Characters and the Number of Words Uttered by those Characters

Note: Number of words uttered is in parentheses

The majority of the 74 main characters are from Japan (34) or inner circle countries including the U.S., Canada, Australia, and Scotland (30). The number of characters from the outer circle (one each from Hong Kong<sup>4</sup> and Kenya) and the expanding circle other than Japan (a total of five, with one from Indonesia, three from China, and one from Brazil) are relatively few. The comparison of the number of words uttered shows a similar pattern, with slightly greater emphasis on the inner circle characters. Japanese characters outnumber inner circle characters by four but they produce fewer words (2,844 words) than those from the inner circle (3,074 words). Characters from the outer circle and expanding circle countries other than Japan produce only 213 words and 419 words, respectively.

This dominant representation of speakers from Japan and the inner circle is found in individual textbooks as well. The only exception is *New Crown* (Morizumi, 1997), which has more speakers from the expanding circle (ten Japanese and three others) than the inner circle (one person) or the outer circle (one person). However, it should be noted that even in this textbook, the number of words uttered by the only inner circle speaker (212 words) is still much larger than that of the only outer circle speaker (70 words) or that of the three speakers from expanding circle countries other than Japan (81 words).

The large number of inner circle characters in all the textbooks reviewed, except for the one just mentioned above, gives the impression that they are the dominant users of English. Japanese main characters are also numerous, but due to the limited number of examples of intra-

national use included in the texts, they do not come across as regular and extensive users of English but rather as prototypical examples of EFL learners, similar to the textbooks' audience. In contrast, representation of users from the outer circle and expanding countries other than Japan is limited in terms of both the number of characters and their roles in dialogues. This does not seem to reflect growing recognition of the spread of English (Crystal, 1997; Graddol, 1997) and sends the message that English users from the outer and expanding circles hold only peripheral roles in the use of English worldwide.

# Contexts of English Use

Table 3 illustrates the number of chapters in the reviewed textbooks that include examples of English use in each context. Use in Japan and the inner circle is represented more often than use in the outer circle or expanding circle countries other than Japan.

Textbook	Japan	IC	OC	EC Other than Japan	Multi-Context	Fictional	Unknown/ No Context
CO	13	0	0	0	0	0	0
EE	10	0	0	0	2 (J-IC)	4	1
NC	10	0	0	0	0	1	0
NH	7	0	0	0	0	5	0
OW	1	9	1	0	2 (J-IC; J-OC	) 0	2
SS	5	7	0	0	1 (J-IC)	0	1
TE	11	1	0	0	0	0	0
Total	57	17	1	0	5	10	4

Table 3: Contexts of English Uses

Japan is the most common context for English use in five of the seven individual textbooks as well as in the overall distribution in all the textbooks combined. For instance, all dialogues in *Columbus* (Togo & Matsuno, 1997) and most dialogues in *Total* (Horiguchi, Goris, & Yada, 1997) are between Japanese students and their American friends or teachers living in Japan. Use in the inner circle is represented in more than half of the chapters in *Sunshine* (Shimaoka, Aoki, Matsuhata, & Wada, 1997) and *One World* (Sasaki, 1997), in which the main characters visit the U.S. and Australia, inner circle countries, and use English to communi-

cate with people there. Four out of five "multi-context" examples also involved Japan and an inner circle country. In contrast, use in the outer circle and expanding circle countries other than Japan is represented much less frequently than use in Japan and the inner circle. Of all the textbooks, only *One World* (Sasaki, 1997) includes a chapter that features the use of English in an outer circle country, Hong Kong. English use in expanding circle countries other than Japan is not represented in any of the textbooks.

Thus, representation of the contexts of English use emphasizes the use of English in the inner circle and Japan rather than the use of English in the outer circle and other expanding circle countries.

# Types of Uses I: Intranational vs. International Use

Table 4 compares the number of chapters in each textbook that include intranational use among speakers from the same countries and ones that include international use between English users from different countries.

Textbook	Intranational Uses	International Uses
CO	1	11
	1	
EE	3	10
NC	0	10
NH	0	11
OW	2	10
SS	2	10
TE	3	11
Total	11	73

Table 4: Intranational vs. International Uses

International use is represented more commonly than intranational use. The majority of chapters, amounting to at least ten chapters in each textbook and 73 of 89 chapters overall, include some representation of international use of English. Intranational use, on the other hand, is represented in only 11 chapters overall and not found at all in *New Crown* (Morizumi, 1997) or *New Horizon* (Asano, Makino, & Shimomura, 1997). References to the international status of English in sections of the

textbook other than the chapter dialogues are also found. For example, a note in the appendix of *Sunshine* (Shimaoka et al., 1997) states that "English can be considered an international language because it is used in various parts of the world" (p. 102), and a cultural note in *One World* (Sasaki, 1997) encourages students to "broaden [their] 'world' through learning English, which is one of the common languages of the world" (p. 95).<sup>5</sup> The prominence of the presentation of the international use of English in these textbooks seems to emphasize the language's role as an international language. This representation makes sense considering that these textbooks are used in Japan, where English is not used for daily intranational communication, but mainly for international communication (Yano, 1992).<sup>6</sup>

# Types of Uses II: Intranational Use

Table 5 compares the number of chapters representing each of the three types of intranational use: use among people from the same inner circle country, use among people from the same outer circle country, and use among the speakers from the same expanding circle country.

Textbook	IC	OC	EC
CO	1	0	0
EE	1	0	2
NC	0	0	0
NH	0	0	0
OW	2	0	0
SS	2	0	0
TE	3	0	0
Total	9	0	2

Table 5: Three Types of Intranational Uses

The majority of intranational use takes place among inner circle English users. Nine out of ten chapters that present some kind of intranational use include the use of English between the inner circle English speakers. For example, *Columbus* (Togo & Matsuno, 1997) depicts an American boy and his parents speaking English at the breakfast table,

Matsuda 193

and in *Sunshine* (Shimaoka et al., 1997), Emily calls her family in New York and talks to them in English. In addition, some textbooks include pictures and texts that refer to the customs and cultures of inner circle countries and their people. *New Crown* (Morizumi, 1997), *New Horizon* (Asano et al., 1997), and *Columbus* (Togo & Matsuno, 1997) have pictures of American school life, and a chapter on numbers from *One World* (Sasaki, 1997) lists emergency telephone numbers from four inner circle countries only: the U.S., U.K., Australia, and New Zealand.

References to intranational use involving speakers from the other two circles are also present in the textbooks, especially in sections other than the regular chapters. For example, five of seven textbooks have preliminary pages that introduce "Classroom English," and four of them include exchanges between Japanese students and a Japanese teacher of English, representing intranational use between speakers from the expanding circle. Also, some comments and maps refer to the use of English in the outer circle: a list of countries and languages spoken in each country mentioned in the textbook in New Crown (Morizumi, 1997) shows English as one of the languages spoken in the outer circle countries included, and a map in Total (Horiguchi et al., 1997) uses different colors to indicate the countries where English is the dominant language (the inner circle) and those where English is a lingua franca (the outer circle). While these lists and maps do not elaborate on the use of English in those countries, they at least acknowledge the use of English in the outer circle.

However, in the main texts, the representation of intranational use among people from the outer and expanding circle is limited. Only two chapters include the representation of intranational use between people from Japan, an expanding circle country, specifically dialogues between a Japanese main character and her mother. Intranational use in the outer circle is not represented at all in any of the chapter dialogues.

The extensive presentation of the use of English among people from the inner circle, combined with pictures and texts that refer to the inner circle cultures, sends a message that English is most closely associated with the inner circle. The role of English as an intranational language for those from the inner circle may also be implied when English is presented as one of many languages in the world. For example, a section in *Columbus* (Togo & Matsuno, 1997) that features photos from Mali, Russia, Spain, Mexico, Kuwait, Brazil, and the U.S. with their dominant languages printed as the caption may suggest to students that one function of English is intranational use in the U.S.

On the other hand, in Japan, English is not used regularly or extensively in daily communication. Thus, the presentation of English use among Japanese characters in textbooks may represent the limited but increasing use of English as a medium of English instruction (e.g., classroom English) and encourage students to use and practice English outside the classroom (e.g., to write poems or to keep diaries).

In sum, the analysis of intranational uses demonstrates that the representation of the use of English between inner circle users is much more common than other types, especially the use of English among speakers from the outer circle.

# Types of Uses III: International Use

Table 6 shows the number of chapters that include presentation of the three types of international use: exclusively among native English speakers, between native and nonnative speakers of English, and exclusively among nonnative English speakers.

Textbook	NS Only	Both NS and NNS	NNS Only
CO	0	11	0
EE	0	8	2
NC	0	7	3
NH	0	11	1
OW	0	9	1
SS	0	9	2
TE	0	11	0
Total	0	66	9

Table 6: Three Types of International Uses

The overwhelming majority of the chapters present international use between one or more native speakers and one or more nonnative speakers of English. Such use was represented in all of the textbooks reviewed. Dialogues between Japanese students and their American teacher or friends, for example, are the only type of international use in *Total* (Horiguchi et al., 1997) and *Columbus* (Togo & Matsuno, 1997). In *Sunshine* (Shimaoka et al., 1997) and *One World* (Sasaki, 1997), the main characters use English extensively to talk to native speakers when they

visit the U.S. and Australia, inner circle countries.

Five of seven textbooks also present some English use exclusively among nonnative speakers, including a dialogue between a Kenyan student and Japanese students in *New Crown* (Morizumi, 1997), dialogues between a Japanese student and a Chinese student in *New Crown* (Morizumi, 1997), and dialogues between an Indonesian student and Japanese students in *Everyday English* (Ueda, 1997). However, the number of chapters that include this type of international use is considerably smaller than that of those representing international use between native and nonnative speakers. Most of the dialogues that are exclusively among nonnative speakers involve Japanese speakers and other nonnative speakers who are visiting or living in Japan, although one lesson in *One World* (Sasaki, 1997) includes a dialogue between a Japanese student and her Hong Kong friend that takes place in Hong Kong. International use between speakers from different inner circle countries is not represented in any chapters.

Although the international use of English exclusively among nonnative speakers is increasing (Smith, 1983), the textbooks that were investigated in this study do not reflect this trend. The predominant representation of the international use of English between native and nonnative speakers may give the impression that nonnative speakers learn English in order to communicate with those from the inner circle.

#### Conclusion

The current study explored the representation of uses and users of English in Japanese 7th-grade EFL textbooks. The findings suggested that these textbooks tended to emphasize the inner circle, both in intranational and international use. English users from the inner circle were presented as the primary users of English, and the majority of chapter dialogues that took place outside of Japan were situated in the inner circle. The predominant users of English for intranational communication were also those from the inner circle, and the majority of international use presented involved communication between native (i.e., the inner circle) and nonnative speakers. The representation of users and uses in other contexts, particularly those in the outer circle and expanding circle countries other than Japan, was much more limited; there were fewer main characters from those countries, and their roles in dialogues were much more limited than characters from Japan or the inner circle. The representation of English use in the outer and expanding circles

(except Japan), both for international and intranational uses, was also only sporadic. International use exclusively among nonnative speakers, which is believed to be increasing as a result of the worldwide spread of English (Crystal, 1997; Graddol, 1997; Smith, 1983), was represented much less often than that involving native speakers.

This inner-circle orientation in the representation of English users and use in these textbooks resembles the view of the ownership of English held by Japanese secondary school students (Matsuda, forthcoming). While a causal relationship cannot be claimed without empirical verification, the similarity between students' perceptions of English users and use and the textbooks' representations, along with the significant role the textbooks tend to play in Japanese schools, suggests that the representation of English in EFL textbooks may be an important source of influence in the construction of students' attitudes and perceptions toward the target language.<sup>7</sup>

If we accept that textbook representation can influence students' perceptions of the English language and its users and uses, the representations found in these textbooks, which focus overwhelmingly on the users and uses of English in the inner circle and Japan and not on those in the outer circle and expanding circle countries other than Japan are problematic. Such a limited view of the language will not prepare students adequately to use English in the future with other nonnative speakers of English. In order to facilitate a better understanding of English users and uses, some changes in the textbooks are needed. For example, textbooks could include more main characters from the outer circle and the expanding circle and assign them bigger roles in chapter dialogues than the roles they currently have. Some dialogues that either represent or refer to the use of English as a lingua franca in multilingual outer circle countries could also be added to chapters. Also, the presence of characters from countries other than Japan and the inner circle would make the inclusion of cultural topics and pictures from those countries easy. Exposure to outer circle and expanding circle countries other than Japan through the representation of English use and users in those countries would help students understand that English use is not limited to the inner circle.

Of course, teaching materials other than textbooks, such as teacher's manuals and commercial supplementary materials, as well as other aspects of teaching, including classroom practices and students' and teachers' attitudes, can supplement the textbook representation of the users and uses of English. For instance, movies, videos, audio clips, or

interaction with international visitors and residents in the community can be incorporated into the classroom activities in order to help students understand that there are many varieties of English. While the American variety, given its preferential status in the current international communication scene, may be a reasonable choice as a target model in Japanese EFL classrooms, students must understand that it is just one of many varieties of English that they may come in contact with in the future. In addition, classroom discussions can address explicit statements in textbooks about the forms and functions of English, such as "Pronunciation of English varies in different countries and regions" (Shimaoka et al., 1997, p. 40) and "English is a world common language. It is an important means of communication when speaking with people from other Asian countries, too." (Sasaki, 1997, p.95). Textbooks may touch upon those issues only briefly, but classroom teachers can provide opportunities to address them in more depth.

English classes provide opportunities for an intensive encounter with the target language for EFL students. Japanese learners of English would benefit greatly from the thorough representation of the sociolinguistic complexity of the English language, including the various uses and users of the language found in different places of the world, in their English textbooks as well as in other components of the EFL curriculum.

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*Aya Matsuda* teaches undergraduate and graduate courses in linguistics and TESL at the University of New Hampshire. Her research interests include World Englishes and TESL.

#### **Notes**

1. The notion of *native speakers* as providers of standard, normative language has been challenged, as variability exists in what they know about the language, what they can do with the language, and what they consider to be standard. The

notion of *nonnative speaker* is similarly problematic, especially with regards to English, because it fails to acknowledge the differences in the ways English users from the outer and expanding circles use the language and the fact that there are people in the outer circle who grow up speaking English as one of their primary languages (Kachru, 1998; Yano, 2001). While I hesitate to use terms that may reinforce the uncritical and inadequate dichotomy criticized above, I decided to use the term *native speakers* for English users from the inner circle and *nonnative speakers* for those from the outer and expanding circles in order to avoid wordiness when variability within each group is not as crucial in the discussion as the boundary between two groups.

- 2. Monbusho (Ministry of Education, Sciance, Sports, and Culture) became Monbu-kagaku-sho (Ministry of Education, Culture, Sports, Science, and Technology) after the reorganization of the governmental ministries on January 6, 2001. In this article, I continue to refer to the ministry as Monbusho because that was the ministry that examined and approved these textbooks in 1996.
- 3. The analysis of contexts and types of English was also conducted by using a smaller unit of analysis: a monologue and a dialogue. Each unit boundary was identified by a change in chapter, its context, and/or participants, and was analyzed in the same ways as described in the methodology section. Because the length of units varied, I also counted the numbers of conversational turns and words in order to make comparison possible. The findings did not vary greatly between the two sets of analysis employing different units of analysis. Since the use of dialogue/monologue as the unit of analysis involves greater variability than the use of preexisting chapters (because the researcher must identify the unit boundaries), only the results from the analysis that used chapters as the unit of analysis are reported in this paper.
- 4. Although Hong Kong is not a country, the use of English in Hong Kong illustrates characteristics of the outer circle, which differ significantly from those of English in mainland China, an expanding-circle country (see Bolton, 2000 for further discussion of English in Hong Kong). Therefore, Hong Kong

Matsuda 199

- is classified in this study as "outer-circle" and separately from China.
- 5. Both quotes were originally in Japanese and have been translated by the author.
- 6. I do not intend to suggest that Japan is a monolingual country, although Japanese is the dominant language of the society. See Maher and Honna (1994), Matsuda (2000b), and Yamamoto (2000) for discussions of linguistic diversity in Japan.
- 7. In order to better understand the influence of textbook representations on students' perceptions and attitudes, an empirical study that compares the perceptions of English users and uses held by different groups of students who use different textbooks and that compares the perception and the textbook representation for each group is needed. Furthermore, follow-up studies using the subsequent sets of textbooks would allow a diachronic comparison of language perceptions and attitudes.

#### References

- Asano, H., Makino, T., & Shimomura, Y. (Eds.). (1997). *New Horizon English Course 1*. Tokyo: Tokyo Shoseki.
- Bardovi-Harlig, K. (1996). Pragmatics and language learning: Bringing pragmatics and pedagogy together. *Pragmatics and Language Learning*, *7*, 21-39.
- Berns, M. (1990). Context of competence: Social and cultural considerations in communicative language teaching. New York: Plenum Press.
- Bolton, K. (Ed.). (2000). Special issue on Hong Kong English: Autonomy and creativity. *World Englishes*, *19* (3).
- Crystal, D. (1997). *English as a global language*. Cambridge, UK: Cambridge University Press.
- Friedrich, P. (2000). English in Brazil: Functions and attitudes. *World Englishes*, 19, 215-223.
- Graddol, D. (1997). The future of English? London: The British Council.
- Halliday, M. (1978). Language as social semiotic: The social interpretation of language and meaning. Baltimore, MD: Edward Arnold.
- Hino, N. (1988). Nationalism and English as an international language: The history of English textbooks in Japan. *World Englishes*, 7, 309-314.
- Horiguchi, T., Goris, R.C., & Yada, H. (1997). *Total English 1.* Tokyo: Shubun Shuppan.

Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk & H. G. Widdowson (Eds.), English in the world: Teaching and learning the language and literatures (pp. 11-30). Cambridge, MA: Cambridge University Press.

- Kachru, B. B. (1992). Models for non-native Englishes. In B. B. Kachru (Ed.), The other tongue: English across cultures (2nd ed.) (pp. 48-74). Urbana, IL: University of Illinois.
- Kachru, B. B. (1998). English as an Asian language. Links & Letters, 5, 89-108.
- Maher, J. C., & Honna, N. (1994). *Towards a new order: Language and cultural diversity in Japan*. Tokyo: Kokusai Shoin.
- Matsuda, A. (2000a). Japanese attitudes toward English: A case study of high school students. Unpublished Ph.D. dissertation, Department of English, Purdue University.
- Matsuda, A. (2000b). The use of English among Japanese returnees: A communicative strategy. *English Today*, 16 (4), 49-55.
- Matsuda, A. (forthcoming). The ownership of English: A perspective of Japanese high school students. *World Englishes*.
- Morizumi, M. (Ed.). (1997). New Crown English Series 1. Tokyo: Sanseido.
- Sasaki, T. (Ed.). (1997). One World English Course 1. Tokyo: Kyoiku Shuppan.
- Shimaoka, T., Aoki, S., Matsuhata, K., & Wada, M. (Eds.). (1997). Sunshine English Course 1. Tokyo: Kairyudo.
- Smith, L. E. (1983). English as an international language: No room for linguistic chauvinism. In L.E. Smith (Ed.), *Readings in English as an international language* (pp. 7-11). New York: Pergamon.
- Togo, K., & Matsuno, K. (Eds.). (1997). *Columbus English Course 1*. Tokyo: Mitsumura Tosho Shuppan.
- Ueda, A. (Ed.). (1997). Everyday English I. Tokyo: Chukyo Shuppan.
- Widdowson, H. G. (1994). The ownership of English. *TESOL Quarterly*, 28, 377-389.
- Yamamoto, M. (Ed.). (2000). *Nihon no bairingaru kyouiku* [Bilingual education in Japan]. Tokyo: Akashi Shoten.
- Yano, Y. (1992). Foreign language teaching in Japan in the 21st century. *AILA Review*, 9, 63-68.
- Yano, Y. (2001). World Englishes in 2000 and beyond. World Englishes, 20, 19-131.

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# **Perspectives**

# An Algorithmic Approach to Error Correction: Correcting Three Common Errors at Different Levels

Alice Y.W. Chan
City University of Hong Kong
Becky S.C. Kwan
City University of Hong Kong
David C.S. Li
City University of Hong Kong

An algorithmic approach to error correction characterized by four main features: pedagogically sound input requiring minimal cognitive effort, proceduralized steps with instructive examples, explicit rules helping learners conceptualize the correction procedure, and reinforcement exercises, is introduced in this article using three well-defined structural anomalies for exemplification: dangling modifiers, missing relative pronouns and the erroneous *there has* structure. The remedial instruction materials have been tried out with students at different proficiency levels and feedback was collected through different channels. Comments from both teachers and students indicate that such an approach is effective, versatile and flexible in helping Hong Kong Chinese ESL learners overcome persistent learning errors.

演算式(algorithmic)の誤り訂正には以下の4つの型一認知的努力が最小で教育的効果のあるインプット、わかりやすい例による手順を追ったステップ、学習者に訂正の過程がわかるような規則の提示、そして練習の強化一があるが、本稿では、上記の誤り訂正法を3つのよく知られた構造的変則例を引きながら説明する。3つとはぶら下がり(懸垂)修飾、関係代名詞の欠如、there has の誤構文である。異なった能力レベルの学生に対し補修指導材料を使用し、フィードバックを様々な方法で収集した。その結果、教師と学生双方から、このよう

な方法が、特に香港の中国系ESL学習者の克服しにくいエラー修正に対して効果があり、多目的に、柔軟性を持って用いることができるとのコメントが寄せられた。

s is well known, error correction is one of the most persistent problems confronted by second and foreign language teachers. Like many of our colleagues, we have frequently been disappointed by the fact that, despite various attempts to make our students aware of recurrent grammatical or structural problems, our students tended to make the same errors again in their language output shortly after corrective feedback was given, suggesting that students failed to internalize the correct model. A substantial body of research in Second Language Acquisition (SLA) has shown that learners may or may not notice the errors that they have made (cf. the noticing hypothesis, Schmidt, 1990, 1992), and even if a particular anomalous form has been noticed, the grammatical rule in question is often too abstract and complex to be mastered upon the teacher's corrective feedback. One possible reason is that the learner may have reached a plateau in the L2 learning process suggesting that fossilization has taken place. There may be other relevant factors, such as the degree of complexity of the grammatical phenomenon or phenomena in question, and whether the teacher is able to use relatively jargon-free metalanguage to make explicit fine structural nuances.

Advocates of the hard-core version of the communicative approach to language teaching tend to dismiss error correction for two main reasons: (a) the belief that all attempts to draw learners' attention to formal anomalies would discourage the learner from producing output in L2, which in turn would inhibit acquisition; and (b) the claim that there is no interface between learning (which takes place consciously with explicit instruction) and acquisition (which takes place subconsciously, typically through mere exposure to the target language in natural, meaning-oriented settings) (Krashen, 1981, 1982, 1985). However, a substantial body of recent research in SLA has shown that focus on form in context (Long, 1991; Long & Robinson, 1998) or form-focused instruction in general (Spada, 1997) has great potential for enhancing the learners' language accuracy in their L2 output, thereby accelerating the rate of SLA.

In an attempt to improve the quality of our own remedial instruction, we experimented with an approach partly inspired by theoretical and

Perspectives 203

empirical studies in consciousness-raising research (Sharwood Smith, 1981; Rutherford, 1987, 1988; Schmidt, 1990); and partly by more recent research on form-focused instruction and explicit corrective feedback (e.g. Doughty & Williams, 1998; Granger & Tribble, 1998), with an aim to explore the pedagogical potential of explicit, form-focused, corrective feedback in the Hong Kong ESL classroom. In our design of remedial instruction materials, we tried to analyze the learning task from the learner's perspective in order to make the remedial input cognitively accessible to even the weakest learners by minimizing the cognitive effort required to proceed from one proceduralized step to the next. We call such an approach an algorithmic approach to error correction (cf. Sharwood Smith, 1981), in the sense that there is a set of rules or procedures that students follow in order to overcome the lexico-grammatical problem in question. In more specific terms, the teaching approach that we have adopted in our materials is characterized by four main features (see Chan & Li, 2002; Li & Chan, 2000, 2001): (a) pedagogically sound input requiring minimal cognitive effort; (b) proceduralized steps supported by instructive examples; (c) explicit rules to help learners conceptualize the correction procedure; and (d) reinforcement exercises.

Such an algorithmic approach to error correction is versatile and flexible in that it can be used for error types of different complexity levels catering to learners at various proficiency levels. The remedial materials thus designed can be used either by teachers in the classroom with or without adaptation depending on the needs of their students, or for selflearning purposes by learners themselves. For this approach to work satisfactorily, however, one prerequisite is that the error type in question must lend itself to effective remedial instruction through a sequence of proceduralized steps. In this article, we will exemplify the algorithmic approach using the materials we designed for three error types at different complexity levels: dangling modifiers, missing relative pronouns, and erroneous there has structures. For ease of illustration, the correction procedure will be structured in different phases, with each phase focusing on one specific teaching goal and indicating what the teacher should or may do to help students overcome the error and progressively approximate the target structure.

Advanced Level: Dangling Modifiers

# Nature and Causes of Problem

Many advanced ESL learners have problems writing complex sentences involving a non-finite clause with no overt subject. The problem of *dangling modifiers* often results, as in the following two examples:

- 1.\* Entering the stadium, *the size of the crowd* surprised John.
- 2.\* Having eaten our lunch, *the ship* departed.

The core of the problem lies in the fact that the subject of the main clause cannot be interpreted as the subject of the subordinate clause/non-finite clause. Inadequate knowledge of the correct usage of the target structure is probably the only cause of this problem. Students are unaware that the subject of the main clause (e.g., 'the size of the crowd' in sentence 1, or 'the ship' in sentence 2) has to be the same as the implicit subject of the subordinate clause/non-finite clause (e.g., "entering the stadium" in sentence 1, and "having eaten our lunch" in sentence 2).

#### Correcting the Problem

Phase One: Illustrate The Correct Use of the Structure with Correct Examples

٠.	Look at the following of	JIII CIIC C		
	(i) Entering the room	n, we tu	irned on the	light.
	lA	]	B	
	(ii) Walking along the	e street	s, John met M	Iary.
	A		]	

Look at the following sentences:

- 2. What is the subject of B in sentence (i)? Circle it.
- 3. Is there a subject in A?
- 4 But do we know who *entered the room*? Who?
- 5. Compare the persons who entered the room and the subject of B. What do you notice? Are they the same persons or different persons?
- Look at sentence (ii) now. What is the subject of B? Circle it.

Perspectives 205

- 7. Who walked along the streets?
- 8. Again, compare the person who walked along the streets with the subject of B. Are they the same?

Phase Two: Introduce the Rule

9. In a complex sentence with two clauses, if the first clause (A) does not have a subject, the subject of the second clause (B) will be interpreted as its subject.

Missing Subject of A (subordinate clause) = Subject of B (main clause)

Phase Three: Help Students Notice the Core of the Error

- 10. Now let us look at sentence (iii) below. It has a similar structure to sentences (i) and (ii).
  - (iii) Entering the stadium, the size of the crowd surprised John.

	l a l	В
П	11	 D

- 11. What is the subject of B?
- 12. Can the size of the crowd be used as the subject of A?

Phase Four: Highlight the Nature of the Problem

13. Sentence (iii) is wrong because the missing subject of A ≠ the subject of B.

Phase Five: Help Students Correct The Sentence by Supplying the Appropriate Subject

- 14. So who entered the stadium?
- 15. Look at the rule in step 9 above.
  What should be the subject of the second clause?
- 16. Rewrite B by changing the subject to John.

(iv)	Entering the stadium,	Iohn
(11)	Lincing the statistin,	JOIIII

Phase Six: Reinforce the Correct Usage by Using Other Examples

Phase Seven: Reinforcement Exercises

## Intermediate Level: Missing Relative Pronouns in Relative Clauses

# Nature and Causes of Problem

Another common error associated with the formation of complex sentences that ESL learners often make is the omission of a suitable relative pronoun in a relative clause as in the following two examples:

- 3.\* I remembered the accident *happened* yesterday.
- 4.\* There were altogether ten parents *participated* in the interview.

This error can be attributed to mother-tongue influence. In Chinese/Cantonese, the mother tongue of most of the students in Hong Kong, there is no distinction between finite and non-finite verbs, and serial verb constructions with more than one verb/verb phrase juxtaposed in the same construction without having any markers to show the relationship between them are perfectly acceptable and very common. What complicates the situation is that the Chinese/Cantonese sentences corresponding to sentences 3 and 4 do not require a relative clause structure or a relative pronoun (see sentences 5 and 6 below). It is thus not surprising for Chinese ESL learners to write English sentences with a chain of finite verbs. Here are two examples:

- ngo5 gei3 dak1 ji3 ngoi6 si6 zok3 tin1 faat3 sang1 dik1<sup>1</sup>
   I remember accident is yesterday happen PRT<sup>2</sup>
- 6. zung2 gung6 jau5 sap6 ming4 gaa1 zoeng2 zip3 sau6 fong2 man6
  - total has ten CL<sup>3</sup> parents receive interview

Apart from L1-related factors, the allowance of a seemingly similar structure in English also contributes to L2 learners' misunderstanding of the correct usage. Sentences such as 7 and 8 below, containing a reduced relative clause with the relative pronoun and the finite verb omitted, may cause confusion. Learners who are unaware of the differences between the acceptable reduced relative structure and the erroneous sentences

Perspectives 207

may incorrectly apply the rule of omission of relative pronouns. Here are two example sentences:

- 7. I like her book published last year.
- 8. I have seen some of the parents interviewed.

Are the following sentences correct?

# Correcting the Problem

Phase One: Help Students Notice the Error

1.

	Make a " $\square$ " if you think so, and a " $\square$ " if you don't think so.							
_	(i) Mary likes John's book published last year.							
_		(ii) I met two parents attended the interview yesterday.						
_		_(iii)	I remember the accide	ent happened yesterday.				
-	(iv) We note from the reports appeared at the front page of the SCMP.							
-		_ (v) T test.	There were altogether	twenty students took the				
High	light		he Voice of the Verb C	y of the Grammatical Sentences by Concerned (Whether it is in Active				
2	2.	Comp	pare sentences (i) and	(ii).				
		(i) [	Mary likes John's boo	ok published last year.				
		□(ii)	I met two parents atte yesterday.	ended the interview				
3	3.	Look	at sentence (i). What	does <i>Mary</i> like?				
4	í.	What	happened to John's b	ook last year?				
5	5.	Note	the correct pattern.					
			John's book published	l last year.				
			John's book was publi	ished last year.				
6	5.	Rewri	ite sentence (i) into two	o simple sentences, A and B.				
			A	B				

7. Circle the noun phrase which is found in both A and B.

- 8. Since *John's book* is found in both A and B, we can turn B into a relative clause. Which relative pronoun (e.g., *which, who, whom, whose, that*) can we use?
- 9. Combine A and B using the relative pronoun suggested.
- 10. Observe: Is the verb *published* in the active or passive voice?
- 11. What is the form of the verb *published*? Is it a present tense verb, a past tense verb, a present participle, or a past participle?

Phase Three: Make Explicit the Context Where Relative Pronouns Can Be Omitted

12. Since *published* is a participle, the subject relative pronoun and the verb *to be* can be deleted. Here is an example:

(vi) [I like her book] [which was published last year.]

A B

In a complex sentence [ ... VERB ... VERB ... ]

A B

If B is a relative clause and the VERB in

B = PARTICIPLE

Then Subject relative pronoun and VERB *TO BE* can be deleted

Phase Four: Explain the Unacceptability of the Ungrammatical Sentences

- 13. Now, look again at sentence (ii). Who did *I* meet yesterday?
- 14. What did the two parents do?
- 15. Which is correct?

Two parents attended the interview; or Two parents were attended the interview.

Perspectives 209

16.	Rewrite sentence (ii) to A and B.	form two simple sentences	3
		_	

- 17. Circle the noun phrase that is found in both A and B.
- 18. Replace the noun phrase in B by a suitable relative pronoun. (e.g., *who*, *which*, *etc.*)
- 19. Combine A and B using the relative pronoun suggested.
- 20. Observe: Is the verb *attended* in the active or passive voice?
- 21. What is the form of the verb *attended*? Is it a present tense verb, a past tense verb, a present participle, or a past participle?

Phase Five: Spell Out the Context Where a Relative Pronoun Must Be Used

22. Since *attended* is not a participle, the subject relative pronoun cannot be deleted.

In a sentence [ ... VERB ... VERB ...]

A B

If B is a relative clause and Verb in B  $\neq$  PARTICIPLE

Then a relative pronoun must be used

(vii)  $\square$  [ I met two parents ] [ who attended the interview yesterday ].

(viii) [ I met two parents ] [ attended the interview yesterday ].

Phase Six: Introduce Alternative Ways of Combining Clauses

23. Following the first rule in step 12, we can rewrite sentence (viii) by changing the verb in B to an *-ing* participle. The subject relative pronoun can be deleted.

Here is an example:

(ix) [ I met two parents ] [ attending the interview yesterday ].

Phase Seven: Reinforcement Exercises

## Elementary Level: the Erroneous 'There has' Structure

Nature and Causes of Problem

As far as elementary ESL students in Hong Kong are concerned, the mistaken construction of the 'there be' structure is one of the most common problems that occurs. The verb HAVE is often misused in place of the verb to BE to express the existential or presentative function, as in the following:

- 9.\* There has a book on the table.
- 10.\* There *have* many computers in the room.

The probable causes of this structural problem are both L1 and L2 related. First, the corresponding existential meaning in Chinese/Cantonese is expressed using *jau5 'have'*, rather than the verb to BE as used in English. Here is an example:

11. maa5 lou6 soeng6 jau5 han2 do1 ce1

road above has many cars

Second, the dummy subject 'there' in a 'there BE' sentence is often mistakenly regarded as syntactically and semantically equivalent to the Cantonese sentence-initial adverb *go2 dou6* '(the demonstrative) there' (as in example 12). This, coupled with the misuse of 'have' to mean the existential *yau5* in Chinese, results in the erroneous 'there has/have' structure as in sentences 9 and 10.

12. go2 dou6 jau5 hou2 do1 jan4

there has many people

Negative transfer from L1 is not necessarily the only reason that may account for students' problems with the structure. Students' inadequate mastery of the different forms of the verb to BE in the target language may also contribute to the error. As the perfect forms 'have been' and 'has been' of the verb to BE are morphologically similar to the verb HAVE, probable confusion due to such acceptable structures as sentences 13 and 14 may also lead to the anomaly.

- 13. There have been a lot of visitors in Hong Kong.
- 14. There *has been* a dog sleeping there.

## Correcting the Problem

Phase One: Alert Students to the Constituents of the Target Structure

- 1. (T shows a picture.) Look at the picture. What is on the tree?
  - (i) A bird is on the tree.
- 2. Sentence (i) tells us that [something] IS/ARE [somewhere]. But to say that [something] IS/ARE [somewhere], you can also say There BE [something] [somewhere].

[something] IS/ARE [somewhere] 
There BE [something] [somewhere]

- 3. What is *something* in sentence (i)?
- 4. What is *somewhere* in sentence (i)?
- 5. Now, rewrite sentence (i) using the *There BE* structure shown above.

Phase Two: Consolidate Students' Understanding by Comparing the Target Structure with a Familiar Structure

- 6. Now compare sentence (i) with the rewritten sentence.
  - (ii) There BE a bird on the tree.
  - (i) A bird is on the tree.
- 7. We can't use *BE* as the verb of the sentence. Cross out *BE* and move the verb *is* to the position after *There*.
- 8. Now, can you answer the question again: What is on the tree?

Phase Three: Reinforce Students' Understanding by Using Other Examples

9. Let us look at another picture (two pictures hanging on the wall): What are on the wall?

something somewhere

- 10. What is *something* in sentence (iii)?
- 11. What is *somewhere* in sentence (iii)?
- 12. Following the rule in step 2 above, rewrite sentence (iii).
- 13. Again compare sentence (iii) with the rewritten sentence.
  - (iv) There BE two pictures on the wall.
  - (iii) Two pictures are on the wall.  $\uparrow \qquad \uparrow$
- 14. We can't use *BE* as the verb of the sentence. Cross out *BE* and move the verb *are* to the position after *There*.
- 15. Now can you answer the question again: What are on the wall?

Phase Four: Help Students Notice the Nature of the Erroneous Structure

- 16. Now look at the following sentence. What's wrong with it?(v) \* There has a book on the table.
- 17. What is *something* in sentence (v)?
- 18. What is *somewhere* in sentence (v)?
- 19. Can we say *A book has on the table*?

Phase Five: Highlight the Nature of the Problem

20. Since we can't say *A book has on the table*, we can't say *There has a book on the table*.

☐ [something] has [somewhere] ☐ ☐ There HAS [something] [somewhere]

Phase Six: Reinforcement Exercises with and without Contrastive Examples

Teachers' and Students' Responses to the Materials

Perspectives 213

Dangling modifiers, missing relative pronouns and erroneous *there-has* structures, are all morpho-syntactically well-defined error types, which lend themselves very well to error correction through the algorithmic approach. These three sets of materials, together with those designed for ten other error types such as resumptive pronouns and faulty parallelism, have been tried out in an ongoing research project, which involves six secondary and tertiary teachers who used the materials in class with their students (over 200 in total), as well as a number of tertiary students (21 in total), who used the materials in a self-learning mode. Feedback on the materials was collected through focus-group meetings with teachers, post-teaching protocols filled out by participating teachers, and self-access evaluation forms filled out by students. In this section, we will briefly examine their responses.

The participating teachers found the materials effective, in that their students became better aware of the problems in the erroneous structures and hence were able to correct them. They also reported that their use of the taught items improved, and the materials helped them gain concrete grammar knowledge. Comments given in the self-access evaluation forms filled out by the students who used the materials in a self-learning mode, also reflected that the materials helped them see the gist of the problems in the erroneous structures as they corrected the errors.

Responses to the user-friendliness features of the materials were on the whole positive. The teachers found the proceduralized correction steps and the rules provided in the materials straightforward and clear enough to help students see and rectify the erroneous structures. The students were also able to follow the materials with little difficulty.

Most of the students who used the materials in a self-learning mode commented on the self-evaluation forms that the materials were clearly written and easy to follow, with the majority of them being able to finish the steps within 30 minutes.

## Conclusion and Adaptation

In this article, we have demonstrated how an algorithmic approach to error correction can help learners at different proficiency levels overcome persistent, common English errors. Our experience suggests that, by virtue of the design features of the materials, the more structured the individual steps, the more likely that the approach will work. For more complex errors such as the dangling modifier problem, some use of grammatical jargon (e.g., *main clause, subordinate clause*) is inevitable if students are to master the subtle differences between the normative

structures and the anomalies; yet for less sophisticated problems, technical terms should better be avoided. The algorithmic approach to error correction suggested here has received some empirical support, showing that it is effective, versatile and flexible with Hong Kong Chinese learners (Chan & Li, 2002; Li & Chan, 2000, 2001). It is our belief that properly administered, this approach will also work well with learners from other L1 backgrounds.

As might have been observed, some of the steps in the materials exemplified may appear to be rather redundant and repetitive. However, we need to emphasize that the repetitiveness is intended as part of the consciousness-raising approach we adopted. Since the materials target relatively weak students, extra guidance realized in explicitness and repetition is necessary to help students with the (re-)discovery of the rules. It is through explicitness that we raise students' consciousness of the tacit rules and through repetitions that we reinforce this consciousness. Having said this, we do not mean that repetitions are necessary all the time, nor do we imply that teachers need to follow every single step before students can arrive at satisfactory learning of the items. Rather, teachers are encouraged to adjust the steps based on their own knowledge of their students' proficiency and ability. At junctions where students' responses deviate from the expected "answers" to the leading questions, adaptations such as reformulating and re-ordering of the questions/steps are particularly essential.

The techniques suggested in this article, though pedagogically sound, are not meant to be exhaustive. They may not be useful for all sentences related to the error type in question and may have some lexical, contextual or structural constraints. Take the missing relative pronoun problem as an example. The technique proposed may not work well with all types of nouns and all types of verbs. Sentences with inanimate nouns such as \*I found two books fell on the floor may not be corrected as easily as sentences with animate nouns such as the ones used in the remedial instruction materials (e.g., \*I met two parents attended the interview *yesterday*). Another constraint is that since the materials were designed primarily to help students notice the correct use of sentences which contain a noun phrase with a relative clause as its post-modifier (either finite with an overt relative pronoun, or non-finite with no relative pronoun) (e.g., I met two parents who attended the interview vesterday / I met two parents attending the interview yesterday). Sentences whose surface structures bear resemblance to the erroneous structure but which do not contain such post-modification (e.g., I remembered you beat

Perspectives 215

me yesterday) do not fit the evaluation metric suggested and hence are not targeted here. The subtlety of the varying degree of acceptability of sentences with unattached clauses is also an issue not addressed in our materials. Though sentences with dangling modifiers such as 1 and 2 are regarded as anomalous, other similar ones like *To apply for the post, an application form must be submitted* are less objectionable and may be acceptable to many native speakers of English. As the principal aim of our remedial instruction materials is to help students identify the nature of the anomalies and formulate a rule which governs the proper use of the structures, whether and when these subtleties should be brought to discussion is left to the discretion of the teacher. It is suggested that teachers take any form of adaptation needed to prevent learners from drawing erroneous conclusions.

## Acknowledgments

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Alice Y.W. Chan, Becky S. C. Kwan and David C.S. Li teach at the Department of English and Communication, City University of Hong Kong. Alice Chan's research interests include phonetics and phonology, contrastive analysis, syntax, lexicography and error correction. Becky Kwan's research interests include genre analysis, English for academic purposes and English for specific purposes. David C. S. Li's research interests include cross-linguistic influence, code-switching, World Englishes and intercultural communication.

#### Notes

- 1. Numbers represent tones (phonemic in Cantonese).
- 2. PRT is the abbreviation for Chinese sentence particles.
- 3. CL is the abbreviation for Chinese Classifiers such as ming4, go3.

#### References

Chan, A.Y.W., & Li, D.C.S. (2002). Form-focused remedial instruction: An empirical study. *International Journal of Applied Linguistics*, 12(1), 24-53. Doughty, C., & Williams, J. (Eds.). (1998). *Focus on form in classroom second* 

- language acquisition. Cambridge: Cambridge University Press.
- Granger, S., & Tribble, C. (1998). Learner corpus data in the foreign language classroom: Form-focused instruction and data-driven learning. In S. Granger (Ed.), *Learner English on computer* (pp. 199-209). London: Longman.
- Krashen, S. (1981). Second language acquisition and second language learning. Oxford: Pergamon Press.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon Press.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. London: Longman.
- Li, D.C.S., & Chan, A.Y.W. (2000). Form-focused negative feedback: Toward a pedagogically sound model of remedial instruction. In D. C.S. Li, A. Lin & W.K. Tsang (Eds.), *Language and education in postcolonial Hong Kong* (pp. 333-351). Hong Kong: Linguistic Society of Hong Kong.
- Li, D.C.S., & Chan, A.Y.W. (2001). Form-focused negative feedback: Correcting three common errors. *TESL Reporter*, 34(1), 22-34.
- Long, M. (1991). Focus on form: A design feature in language teaching methodology. In K. de Bot, R. Ginsberg & C. Kramsch (Eds.), *Foreign language research in cross-cultural perspective* (pp. 39-52). Amsterdam: John Benjamins.
- Long, M. & Robinson, P. (1998). Focus on form: theory, research, and practice. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp.15-41). Cambridge: Cambridge University Press.
- Rutherford, W. (1987). Second language grammar: Learning and teaching. New York: Longman.
- Rutherford, W. (1988). Consciousness raising and universal grammar. In W. Rutherford & M. Sharwood Smith (Eds.), *Grammar and second language teaching: A book of readings* (pp.107-116). New York: Newbury House.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R. (1992). Psychological mechanisms underlying second language fluency. *Studies in Second Language Acquisition*, 14, 357-385.
- Sharwood Smith, M. (1981). Consciousness-raising and the second language learner. *Applied Linguistics*, 2, 159-169.
- Spada, N. (1997). Form-focused instruction and second language acquisition: A review of classroom and laboratory research. *Language Teaching*, 30, 73-87.

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# **Reviews**

*Teachers' Voices 7: Teaching Vocabulary.* Anne Burns & Helen de Silva Joyce (Eds.). Sydney, Australia: Macquarie University, 2001. 132 pp.

Reviewed by
Keiko Sakui
University of Auckland, New Zealand

*Teachers' voices 7: Teaching vocabulary* is the seventh publication in a series of edited volumes reporting action research studies. The studies were conducted by teachers who are teaching English in Australia for the Adult Migrant English Program (AMEP) under the National Centre for English Language Teaching and Research.

As the editors contend, many teachers would not argue against the importance of vocabulary instruction in language teaching practice. The research on vocabulary teaching and learning has begun to gain its fair share of attention recently, and this publication is timely in reflecting the growing interest in vocabulary research and instruction.

In the introduction, the editors provide background information on how the project on vocabulary teaching emerged, together with a brief overview of recent research and theory development on vocabulary acquisition and teaching. The overview summarises the complexity of the area of knowledge in a concise manner. This information also orients readers to the type of training the action researcher-teachers received before they undertook this project.

The main chapters of the book consist of four sections on vocabulary teaching: 1) different learner levels, 2) how to incorporate vocabulary instruction throughout the curriculum, 3) various teaching techniques, and 4) teaching idioms. Each section includes several action research studies conducted by a teacher-researcher. There are 19 such studies in total. The research themes include a wide range of topics, such as vocabulary development with a post-beginner class, a thematic approach to teaching vocabulary, the development of ESP vocabulary, the use of TV and dictionaries as learning tools, and exploring idiom usage.

Employing action research procedures, each study is guided by specific questions teachers formulated in teaching vocabulary in

their classrooms or programs. There is also a description on how and why each teacher was motivated to carry out action research. Every study provides detailed contextual information including class size, students' demographic information, such as nationality and educational background, as well as characteristics such as motivation and language level. The teachers describe their teaching techniques/lessons, written in a clear manner, in order to give readers a better understanding of the actual instruction. This description is followed by their evaluations and reflections. Evaluation methods include both objective (test scores, questionnaires) and subjective (teachers' impressions) measures.

The applications of the book are manifold. One use is as a practical resource book for teacher-researchers who are interested in carrying out their own action research. The large-scale, program-wide action research projects, as well as individual studies serve as a useful guide for researchers interested in different research scopes. Another use is as a resource book for vocabulary teaching. Studies in the book address various aspects of vocabulary teaching and adopt different approaches for a wide range of students. Some authors have included copy-ready materials for teacher use.

The editors argue that some of the teaching practices introduced in the book might not transfer seamlessly to other teaching contexts. From this perspective, some language teachers working in other contexts or with different types of learners might question the applicability of action research carried out with students in Australia. However, the depth of description of each teaching context and voices of the teachers provide readers with a detailed view of these teachers' teaching situations, how they evaluated their success, and how they might make improvements. For teachers, the information needed is not only about new teaching techniques, but also about reasons for implementing a certain task and its effectiveness. Then we can make our own professional judgment on how it might transfer to our own classrooms.

This echoes a recent movement in teacher research, which views the teacher as an active agent, rather than a mere transmitter of subject knowledge and teaching techniques. Studies on teacher development increasingly call for an ecological understanding of teaching and learning (Wideen, Mayer-Smith & Moon, 1998), and value reflective teaching as a means to further teaching expertise (Schön, 1983). After reading the detailed accounts of each specific context of the studies introduced in this book, readers will be better able to reflect, re-examine, and expand their own teaching of vocabulary.

#### References

Schön, D. (1983). *The reflective practitioner: How professionals think in action.* New York: Basic Books.

Wideen, M., Mayer-Smith, J, & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research*, 68, 130-178.

*Teaching and Researching Autonomy in Language Learning*. Phil Benson. Harlow, England: Longman, 2001. 260 pp

Reviewed by
Mika Maruyama
Independent Translator
Joseph Falout
Nihon University

Originating as a focus of attention more than three decades ago, autonomy in language learning has evolved from its conceptions to become part of the mainstream of language teaching methodology. In *Teaching and Researching Autonomy in Language Learning*, Phil Benson (2001) ties these formerly marginalized and disparate theories and practices into a cohesive map, an inviting formation where either browsing or serious contemplation are available options for the language researcher. Because of its clear, comprehensive coverage and introduction of up-to-date work, this text is most suitable for, though would not be exclusive to, readers entering the field. More advanced researchers would also benefit, as the text is a good summary which pulls together the field's diverse sources and influences.

Packaged into manageable sections and subsections, the themes are further punctuated by side-bar-type critical quotes, concepts, and titles for recommended reading. Although these expressive boxes often encumber the flow of the text's prose, they usefully highlight points for ready referencing and quick comprehension. A separate section in the back lists a variety of useful resources for research and practical use in classrooms, such as journals and newsletters, websites, and professional associations, including JALT's Learner Development Special Interest Group. All in all, this assortment is easily digestible and definitely inspiring.

The first section elaborates the history of autonomy's conceptual changes in political, psychological, and educational fields. Not afraid to assert himself, Benson maintains that in order to study autonomy as a subject, one must nail down slippery definitions and hold to an observable, measurable manifestation. By defining autonomy as "the capacity to take control of one's own learning" (p. 47), Benson claims that it becomes identifiable and measurable.

Apart from theoretical agendas, questions have been raised as to whether the promotion of autonomy inadvertently administers culturally inappropriate and insensitive values in the foreign language classroom. Originating in Europe, and discussed mainly in a European context, autonomy now steps into a wider framework as it spreads worldwide. Citing Aoki and Smith who assert that autonomy "is not an approach enforcing a particular way of learning," Benson concludes that it is "culturally legitimate" in that "autonomous learners are the most able to contribute to [their own] cultural development and transformation" (p. 57).

In the second section, Benson outlines and develops six different approaches which foster autonomy: resource-based, technology-based, learner-based, classroom-based, curriculum-based, and teacher-based approaches. Argument is made for the inherent efficacy and type of control emphasized in relation to each approach. This is not to say that one approach is superior to another, but that, naturally, an integration of approaches best relates to personal classroom practice. This section may be helpful for teachers, learners and researchers to identify their current methodologies, and may inform them of other potential practices.

In the last section, suggestions for future research are described, including details about current research and difficulties. One area needing further investigation is the correlation between the degree of autonomy and language proficiency level. Benson asserts that there is no hard evidence proving a direct correlation between the two, although greater autonomy has generally been considered to lead to greater proficiency in language learning itself.

Included in the research section are also summaries of six case studies conducted around the world. The most exciting one was done in Hong Kong by Shirley Yap who investigated her students' out-of-class language learning activities. While many of us may not have heard of any study on autonomous language learning outside the classroom, this original and thought-provoking work embarks upon an investigation into the true unknown, and, these reviewers hope, heralds a new research front.

Reviews 221

The best part about Benson's book is that it is a lucid, easy read, drawing from a wide perspective and offering a solid history on its topic. The drawback would be that this format allows for little depth in the particulars as it quickly skips ahead to the next part. For the practitioner wishing to combine research with teaching, this book provides helpful references and jumping-off points. The seasoned expert, however, may choose to pass. Yet, as it is more of a map of the field, it may be refreshing for those who wish to get out of the trees and take a look at the forest.

Approaches and Methods in Language Teaching (Second Edition). Jack C. Richards & Theodore S. Rodgers. Cambridge: Cambridge University Press, 2001. 270 pp.

Reviewed by
Thomas C. Anderson
Aoyama Gakuin University

TESOL educators face many issues when developing and putting into practice effective curricula and lessons. The issues not only concern WHAT to teach, but also HOW to teach. Richards and Rodgers, quoting Lange (1990, p. 253) point out that "foreign language teacher development...has a basic orientation to methods of teaching. Unfortunately, the latest bandwagon 'methodologies' come into prominence without much study or understanding, particularly those that are supported by a particular 'guru'" (p. 15).

It is with this in mind that the authors have updated their 1986 classic, reducing the space given to less mainstream methods and providing analyses of new approaches, methods, and developments in language teaching in the late twentieth century and into the new millennium. They attempt to give a balanced historical view of language teaching and the events and forces that have shaped it over the years.

The first part of the book, "Major Language Trends In Twentieth-Century Language Teaching," begins with an historical overview of language teaching from the seventeenth century up to the present. The authors believe that a study of past and present teaching methods is important for three reasons:

The study of approaches and methods provides teachers with a view of how the field of language teaching has evolved. Ap-

proaches and methods can be studied not as a prescription for how to teach but as a source of well-used practices, which teachers can adapt or implement based on their own needs. Experience in using different teaching approaches and methods can provide teachers with basic teaching skills that they can later add to or supplement as they develop teaching experience. (p.16)

Following this historical overview, the authors outline and describe in detail a model, which shows the three elements (approach, design, and methods) and sub-elements, which make up a method. Richards and Rodgers use their model throughout the rest of the book to analyze various methods that have come into vogue over the years. By doing this, they give the teaching professional examples of how the model can be used to evaluate any teaching method.

In the second part of the book, Richards and Rodgers examine various approaches that emerged after a major paradigm shift in language teaching towards a more communicative style of teaching and learning. These approaches either developed outside mainstream language teaching or represent an application of educational principles generated elsewhere. Total Physical Response, The Silent Way, and Counseling Learning are examples of the former, while Neurolinguistic Programming and Multiple Intelligences are examples of the latter.

In the final part, the writers focus on the approaches and methods of the communicative era, beginning in the late 1980s. These include Communicative Language Teaching, The Natural Approach, Content-Based Teaching, and Task-Based Language Teaching. The authors conclude with a reflection on the various methods and criticisms directed towards each approach, as well as with a discussion of possible future developments in language teaching.

Overall, the authors succeed very well in accomplishing what they set out to do. Their model provides readers with a framework by which they can analyze and compare various methods. Using this framework can help the readers make an informed choice and thus avoid the reinventing of the wheel, which tends to happen when gurus are followed blindly. This book would be a good choice for students beginning a Master's degree program, for example, because of the Bibliography and Further Reading list at the end of each chapter, as well as for veteran teachers wishing to become more informed about developments in language teaching. It would also be an appropriate choice for staff rooms or personal libraries.

#### References

Lange, D. (1990). A blueprint for a teacher development program. In J.C. Richards
 D. Nunan (Eds.), Second language teacher education (pp.245-268). New York: Cambridge University Press.

*Historical Linguistics*. Herbert Schendl. Oxford: Oxford University Press, 2001. xi + 130 pp.

Reviewed by
Robert Kirkpatrick
Prefectural University of Kumamoto

This slim volume is one of the latest in the *Oxford Introductions to Language Studies* series. The series is edited by H.G. Widdowson, and the writer of this book, Herbert Schendl, is Professor of English Linguistics at the University of Vienna. The book surveys different theories and methodologies, and explains past and present trends in the subject, such as recent influences from neo-Darwinian evolutionary thought. The sections on readings and references give well-focused reviews of major works in the field and are invaluable for newcomers.

Historical linguistics has been an academic topic for over two hundred years in the west, and investigates the history of languages: why and how they change; the prehistory of languages; and the continuing changes. For any language these are engrossing issues – and some linguists may spend their career studying one section of one language. An example given of grammatical change is the case of a village in India (Kupwar), where the inhabitants grow up speaking three languages (Urdu, Marathi, and Kannada). While the vocabularies have remained distinct, the grammars have become almost identical. Schendl gives no further information but, using the Internet, I was able to track down references to the village, and found the study fascinating.

Although language change usually occurs unintentionally, it can also be the result of planning. Schendl discusses this with regard to Indonesia after its war of independence from the Netherlands and how the government successfully introduced a standardized version of Bahasa Indonesia. Sometimes such planning is not so successful, as in the Republic of Ireland, and sometimes the result is undetermined, such as with the Maori language in New Zealand.

One might worry that a book on such a theoretical subject would be a touch abstruse and technical, or, on the other hand, considering the notebook size, think it a narrative version of Cliff Notes. In fact, it pares down and makes comprehensible this complex subject. Schendl's writing is generally understandable, but there are times when brevity comes at the expense of clarity. Take this sentence in the first paragraph of Chapter 1. "Linguistic changes tend to be the result of two equivalent forms coexisting as variants for some time, and one giving way to the other" (p. 3). I had to read this twice before understanding that in any language there might be two words, for example, with the same meaning, both being used until eventually one of the words becomes more popular and finally displaces the other. This seems simple enough, common sense even, and an outcome of the book is that it shows how much of the theory of historical linguistics rests on basic principles. The book does what it is meant to do—give a "broad map" of the area, as Widdowson states in his preface. It is useful for students who are about to embark on a serious study of the field and also for anyone who only needs an outline. I finished the book feeling that I would have liked more on most topics, no doubt a sign of interest stimulated by the writing.

## **Information for Contributors**

All submissions must conform to JALT Journal Editorial Policy and Guidelines.

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