

Towards Better Grammar Instruction: Bridging the Gap Between High School Textbooks and TOEIC

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Bio Data

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Abstract

The authors of this study discuss ways to make the instruction of grammar more effective, especially for Japanese beginning level English students. In particular, they discuss what grammatical features and structures students should be aware of in order to both enhance their classroom learning and their ability to understand and respond to practical English expressions such those in the TOEIC test, which measure proficiency in international English communication. They (a) assess both grammatical features and structures of three high school English textbook series widely used in high-schools in Japan and those of test questions in the TOEIC reading sections; (b) uncover discrepancies that exist between those textbooks and TOEIC; (c) make suggestions about how to approach the instruction of grammar; and (d) report the results of their case study in which grammar instruction was given to beginning level university students in the suggested way.

1. Background

There has been a growing interest in and necessity for English for international communication, since English is increasingly becoming a lingua franca for international technology and communications. In secondary education in Japan, the development of English communicative proficiency has been particularly emphasized since the late 1980s (Ministry of Education, 1989, Ministry of Education, Culture, Sports, Science and Technology, 1999) in order to meet the needs of learners who want to be able to communicate in that language. Still, it is often charged that the current system of English

education does not satisfy such needs. Japanese university students' scores of the 2004 TOEIC (Test of English for International Communication)¹ serve to corroborate this charge. The TOEIC tests are designed to evaluate a learner's English ability for communication and their test materials are extracted from both everyday and business contexts. In 2004, 244,940 university students earned a score of 428 on average, out of a possible 990, at TOEIC IP tests (i.e., on-site testing of TOEIC) (TOEIC Un'ei Iinkai, 2005). When the scores are as low as they were in 2004, it can be taken to mean that despite the fact that Japanese students study English at junior and senior high schools for at least six years prior to university, they - on average - possess insufficient English communicative ability.

In this paper, we as grammar educators address the challenge of making grammar teaching more palatable and more effective. It is undeniable that most students of a second or foreign language view the study of grammar as tedious. English grammatical rules are intricate and beginning-level Japanese university students are weary of taking grammar classes with rote memorization and drills which they find both boring and difficult to understand or appreciate. In fact, in 2004, the university students' average score for the reading sections in TOEIC IP tests was as low as 243 out of possible 495 (TOEIC Un'ei Iinkai, 2005). Nevertheless, it is equally undeniable that an understanding of a language's grammar is essential. Communicative competence necessarily includes grammatical competence in addition to sociolinguistic, discourse, and strategic competences (Canale and Swain, 1980). Just as vocabulary is the flesh of the language, grammar is the skeleton. The purpose of this paper is, therefore, to explore the development of a better method for grammar instruction in which students are not just required to memorize difficult and intricate grammatical rules, but one that will effectively improve knowledge of English, as reflected in test scores of TOEIC reading sections, and ultimately, in communication.

To accomplish our purpose, we intend to address the general issue of *what* to teach, rather than *how*. Given the current circumstances surrounding English education in Japan as discussed above, we specifically focus on what students are taught at the secondary

level, what is expected in test questions used to evaluate a learner's English ability for communication such as in TOEIC, and how to bridge that gap. Specifically, the following four questions are addressed in this paper: (1) What is the scope of the grammar presented in the English textbooks traditionally used in the Japanese school system? (2) What kinds of grammatical features and structures frequently appear in both everyday and business contexts in TOEIC questions in the reading sections? (3) How effective are the English textbooks in preparing students to respond to these kinds of TOEIC questions? In other words, how does the grammar presented in the textbooks compare to the grammatical features and structures that frequently appear in those TOEIC questions? (4) How can the instruction of grammar be made more effective, particularly for beginning level students who have had little success in their traditional grammar classes, in order to improve their ability to respond to grammar questions such as in the TOEIC reading sections?

Before we begin, let us clarify another general issue related to our research questions, namely, the problem of *how* to increase students' grammatical competence. This has been a critically important as well as continuously controversial topic in the study of second language acquisition. Among various issues concerning this topic, efficiency of explicit and implicit grammar instruction of a second language has been extensively discussed. According to DeKeyser's (1995) definitions, explicit grammar instruction involves an explanation of a rule or request to focus on a grammatical feature in the input, whereas the implicit grammar instruction does not. Regarding the notion "explicit," several cognitive concepts have been discussed in the literature, such as "consciousness-raising" (Sharwood Smith, 1981 and Rutherford, 1987), "noticing" (Schmidt, 1990), "focus-on-form" (Long, 1991, 1996, and Lightbown and Spada, 1990), and so on. There have been classroom studies which emphasize the usefulness of grammar instruction that is explicit in some sense. To cite just a few examples, Takashima (1995) and Takashima and Ellis (1999) discuss a case study for English education at the Japanese university level and their work shows that explicit corrective feedback was effective in teaching past-tense morphology. Zhou (1991) also demonstrates that explicit formal instruction was helpful for Chinese students' learning of less complex syntactic structures and morphological

properties of passive construction. Examining the literature on this issue, Purpura (2004) concludes “In sum, the majority of studies surveyed showed a clear advantage for learners receiving explicit grammar instruction. Formal, explicit grammar instruction seemed to help L2 learners develop their interlanguage at a more rapid pace; it helped them achieve higher ultimate levels of grammatical ability;” (Purpura, 2004: 44).² In this paper, we proceed from the view that explicit grammar instruction is effective, and explore what kind of grammatical knowledge should be explicitly given to Japanese beginning-level university students.

2. Analysis of Grammatical Features and Structures in High School Textbooks and TOEIC Tests

In order to design a more effective grammar program, it was first important to know what grammatical structures are taught in Japanese school textbooks and to compare these with the structures that frequently appear in TOEIC tests. The first step was therefore to examine senior high school English textbooks to identify the grammatical features and structures that most students are assumed to have learned by the time they enter college, and to analyze the English language grammatical features and structures which frequently appear in sample TOEIC question sentences. Once obtained, these were compared to understand how adequately the texts prepare students to understand and use the English expressions found in the TOEIC.

2.1 High School Textbooks

Textbooks at the senior high school level are approved by the Japanese Ministry of Education, Culture, Sports, Science, and Technology, and the grammatical features are strictly specified by school course guidelines, which are based on the *Gakkoo Eibumpoo*, (*School English Grammar*) (Murata, 1984). Of the texts that have been approved, the three top-selling textbook series were examined for this study: *Unicorn I and II* (Suenaga et al., 2002a, b); *Milestone I and II* (Shimada et al., 2002a, b); and *Polestar I and II* (Ishiguro et al., 2002a, b)³. In these particular textbooks, grammatical features are usually presented and explained at the end of each lesson. In order to ascertain how complete the

explanatory material was, the total number of lines that each text dedicated for explaining each grammatical feature was tallied. For example, the total number of lines *Unicorn I* devoted to an explanation for ‘gerunds’ is four: one line for a description of gerunds and three lines for examples indicating their use. See **Table 1** in 2.3.1 for a list of the grammatical units and their corresponding number of explanatory lines and percentages.

An analysis of the grammatical structures reveals that there is a characteristic peculiar to the grammatical framework found in these texts, and that is the classification of sentence patterns into the following five patterns (Onions, 1971): SV, SVC, SVO, SVOO, and SVOC (where S, V, O, and C stand for subjects, predicate verbs, objects, and complements, respectively). In addition, there are some exceptional constructions, which are grouped into *other sentence patterns*, such as “It-subject”; “S + *seem*, etc. + to-infinitive”; “S + V + O + to-infinitive”; etc. This analysis is discussed in detail in 2.3.

2.2 Test of English for International Communication (TOEIC)

To identify the grammatical features frequently asked in TOEIC questions, the following eight sets of tests were examined: seven were retired tests (TOEIC Un’ei Iinkai, 1981 and 1982; the Chauncy Group International, 2000 and 2002; and the T.F. Communications 1997) and one was a practice test (the T.F. Communications 2003). We collected question sentences that required examinees to tap into their knowledge of English grammar, i.e., fill-in-the-blank and error recognition. To that end, question sentences in Parts VI and VII of the reading sections were used. A total of 480 question sentences were analyzed: 320 from Part VI and 160 from Part VII. In order to manage the results, identical terminology (e.g., “infinitives,” “conjunctions,” “adverbs,” etc.) was used to describe the grammatical features from each source. For reliability, the classification process was repeated six times on different days by different researchers.

The procedure for classification was as follows: (1) We examined the grammatical features and structures involved in the process of making the correct choice of answers; (2) If more than one grammatical feature and/or structure appeared in one question, and if each was deemed relevant to the point of the question, then they were included in the

study and categorized into their corresponding grammatical feature and/or structure. Consider the following question as an example:

Sample 1. The increase in salaries and benefits ____ pleased all staff members.

(A) is (B) are (C) have (D) has

Four grammatical features and structures are pertinent to this question: auxiliary verbs, tense of verbs, passive voice, and subject-predicate agreement. In this case, the examinee must first recognize that the blank space must be filled by some auxiliary verb, and in order to choose the correct answer, the examinee must also possess a knowledge of tense, passive voice, and subject-predicate agreement. Therefore all four grammatical features and structures were included from this question sentence, because they were all relevant to the process of answering. Following this procedure for each question, we found - not surprisingly - that the total number of inclusions from the TOEIC exceeded the number of question sentences analyzed in this survey. In other words, each TOEIC question required a fairly comprehensive knowledge of grammar. The structures are listed in **Table 2** in 2.3.1.

There were several questions that could not be classified into any existing category. Such a question requires an examinee to employ some knowledge that is not conveyed in the explanation sections of the high school textbooks. Those questions were labeled as “none of the above.” Consider this question as an example:

Sample 2. Most hotels offer many ____ tours.

(A) organize (B) organizer (C) organized (D) organizationally

The answer to this question is *organized*, which is an adjective. At first glance the question might be assumed to pertain primarily to the usage of an adjective, i.e., how an adjective behaves grammatically. In fact, it inquires about what may come between a quantifier and a noun. Such a level of grammatical knowledge is not directly linked to the usage of an adjective, therefore, it was classified as “none of the above.” It will be argued later that the concept of a ‘phrase structure’ plays an important role in this type of question. A detailed discussion follows in 2.3.2.

2.3 Results and Discussion

2.3.1 The Gap between High School Textbooks and TOEIC Tests

It is assumed in this study that the relative importance of each grammatical feature or structure that comes up during the teaching of high school grammar is equivalent to the amount of explanation allotted to each grammatical feature or structure within the high school textbooks. In the case of the TOEIC, this study assumes that the frequency of each grammatical feature or structure appearing in TOEIC test question sentences corresponds to its relative importance in understanding and correctly responding to practical English expressions. The quantitative results obtained by the analysis are summarized here as well as being displayed in table form (see **Table 1** and **Table 2**).

Result 1: The number of grammatical features and structures addressed in the high school textbooks is 24, with a total number of 1367 lines. Among these structures, the five sentence patterns (17.3%), relative conjunctions (15.3%), tense (8.7%), and infinitives (7.3%) are each given 100 lines or more of explanation. These five grammatical features and structures cover more than 50% of all the explanatory lines. In other words, in spite of the fact that 24 grammatical structures are covered in the texts, the emphasis is only primarily on these five grammatical features and structures.

Result 2: More importantly, 55.3% of the question sentences in Part VI and VII of the TOEIC tests fell into the “none of the above” category. In other words, more than half of the grammatical structures found in the TOEIC questions are not found in high school texts. Other grammatical features and structures which appear in the TOEIC samples analyzed are, for example, adverbs (6.5%), conjunctions (5.9%), prepositions (5.4%), passive voice (3.9%), and the five sentence patterns (3.9%).

It is clear that there is a profound difference between the grammatical features and structures taught by instructors using high school textbooks and those found in the TOEIC questions. Not only are the most frequently asked grammatical features or structures in the TOEIC tests *not* covered by high school textbook explanatory notes, but

the emphasis on the five sentence patterns taught in high school texts (17.3%) is clearly not as important in the real-life usage of the TOEIC (3.9%).

As we can see, the grammatical features and structures found in high school texts (**Table 1**) and TOEIC tests (**Table 2**) are significantly different. It is noteworthy that complex grammar structures such as relative conjunctions, infinitives, and participles are ranked within the top five in importance in high school texts, whereas simple categories such as adverbs, conjunctions, and prepositions are ranked within the top five in importance in the everyday international communication proficiency of the TOEIC. In short, not only do high school textbooks *not* prepare students for the types of grammatical structures that frequently appear in TOEIC questions, but the grammatical features and structures that are so highly rated as to receive prominent coverage in the explanatory notes of the textbooks (other than sentence patterns) frequently do not appear in TOEIC questions at all.

Table 1 Grammatical Features and Structures Explained in Senior High School Texts

Rank	Grammatical Features and Structures	<i>Number of Lines</i>	Ratio (%)
1	Five Sentence Patterns	236	17.3
2	Relative Conjunction	209	15.3
3	Tense	119	8.7
4	Other Sentence Patterns	107	7.8
5	Infinitive	100	7.3
6	Participle	88	6.4
7	Subjunctive Mood	81	5.9
8	Passive Voice	74	5.4
9	Gerund	52	3.8
10	Phrase/Clause	36	2.6

11	Auxiliary	33	2.4
12	Comparative	28	2.0
13	Preposition	25	1.8
13	Formal Object	25	1.8
15	Concessive Construction	21	1.5
	“Other” ⁴ [each ratio of which is less than 1.5 %]	133	9.7
<i>Total</i>		1367	100.0⁵

Table 2 Grammatical Features and Structures Found in TOEIC Test Questions

Rank	Grammatical Features and Structures	Number of Lines	Ratio (%)
1	None of the Above	411	55.3
2	Adverb	48	6.5
3	Conjunction	44	5.9
4	Preposition	40	5.4
5	Passive Voice	29	3.9
5	Five Sentence Patterns	29	3.9
7	Phrase/Clause	18	2.4
8	Comparative	16	2.2
8	Infinitive	16	2.2
8	Relative Conjunction	16	2.2
8	Tense	16	2.2
12	Participle	14	1.9
	“Other” ⁶ [each ratio of which is less than 1.5 %]	45	6.0
Total		741	100.0

2.3.2 The Grammatical Structures Frequently Found in the TOEIC Questions

Let us now take a closer look at the type of TOEIC questions that fell into the category ‘none of the above,’ since this proved to be the largest category in the second formatted table (see **Table 2**). The information about the grammar applicable to these questions is, simply, not explicitly put forth in the explanatory notes in the three textbook series examined in this study. So, the question is: How, then, can students acquire this level of knowledge about English grammar?

The authors propose a new grammatical point of view that incorporates ‘sentence structure’ and ‘phrase structure.’ First, consider as an example the following TOEIC sample question of error recognition, in which the sentence structure itself is the target of question.

Sample 3. The copying machine that is located in the office on the basement floor.

A B C D

Crucial to being able to recognize the error in this sample is the knowledge of the subject-predicate relation, which is a key property of a sentence. Such knowledge allows the examinee to notice that the error is the existence of the word *that*, which is incorrectly placed between the subject and the main predicate of the sentence, thus preventing the establishment of the relation between the two. Since an examinee must know about this in order to recognize the error, it is imperative to address the subject-predicate relation in some noticeable way in classroom grammar instruction. (See Section 3 for pedagogical suggestions.) But in the examination of the high school textbooks, it was noted that the texts only briefly touched upon the relation between the subject and the predicate at the very beginning of introducing the notions of S, V, O, C, and M (modifier) (see 2.1).

The category ‘none of the above’ also includes questions concerning ‘phrase structure.’ Two types of phrase structure were frequently noted in this study: (1) a noun phrase (hereafter, NP) and (2) a verb phrase (hereafter, VP). Before studying the sample questions, it is helpful to review the meaning of ‘phrase’ and ‘phrase structure.’ A ‘phrase’ (or ‘constituent’) is roughly defined as a unit of grammar that when combined with other phrases can form a sentence.⁷ There are two important aspects of this: (a) a sentence consists of phrases, and (b) a phrase has its own internal structure. Furthermore, it follows that a sentence made up of phrases has its own internal structure and is not just a random sequence of words arranged in accordance with the word-order rule specified for any given language.

Words can be grouped into a unit known as a phrase and these units can be built into a larger unit which has come to be known as a sentence. The idea that a sentence consists of different kinds of phrases is related to the teaching concept that the structure of a

sentence (as just briefly mentioned) consists of a subject phrase and a predicate phrase, both of which usually consist of an NP and a VP. TOEIC questions that include these two phrases (NP and VP) appear to be the most frequently occurring feature of grammar in the TOEIC and this is the reason that so many TOEIC sentences fell into the category ‘none of the above.’

Because of the frequency of phrases in the TOEIC questions and therefore their relative importance, we next examined the way the concept of phrase structure functions in the TOEIC question sentences. Again, let us consider the same example that was presented earlier, and is repeated here:

Sample 4. Most hotels offer many ____ tours.

(A) organize (B) organizer (C) organized (D) organizationally

The answer is a certain adjective, and knowing that is linked to the knowledge of the structure of an NP where an adjective may appear between a determiner and a noun. Even if high school textbook grammar teaches that an adjective may be placed immediately before a noun, after an article, and so forth, how can a student figure out where to place it when the very position of the adjective is left blank in the question sentence? Knowledge about how to use adjectives does not automatically lead in a straightforward way to the answer of that type of question. And this type of question appears most frequently when compared with other questions concerning the other grammar features and structures. Another example question that involves the structure of a VP is shown below:

Sample 5. Some packing materials are ____ recycled.

(A) easy (B) ease (C) easily (D) easier

The answer is a certain adverb. It is taught that an adverb may be placed between an auxiliary verb and a main verb. Since the very position is left blank, in order to choose the correct answer, it is important to have a working knowledge about the unit of grammar that is made up of the core verb and the words that surround it, i.e., the VP.

Other than the three grammatical structures that have been discussed (the subject-predicate relation, the structure of an NP, and the structure of a VP), the ‘none of the above’ category includes two more grammatical features and structures: (1) the structure of a prepositional phrase (hereafter, PP) and (2) subject-predicate agreement. A third table was formatted, based on these considerations, and the ‘none of the above’ category was re-configured into the five new subcategories (see **Table 3**).

Table 3 Reclassification of ‘None of the Above’ in Table 2 for the TOEIC Test Questions

Rank	Reclassification of ‘None of the Above’	Number of Lines	Ratio (%)
1	Structure of NP	181	24.4
2	Structure of VP	96	13.0
3	Subject-Predicate Relation	78	10.5
4	Structure of PP	39	5.3
5	Agreement	16	2.2
Total		410	55.3

The results of the survey that were summarized in Result 2 are, accordingly, revised in Result 3 below:

Result 3: The grammatical structures that frequently appear in TOEIC questions in Part VI and VII correspond to the structure of an NP (24.4%), the structure of a VP (13.0%), the structure of a PP (10.7%),⁸ subject-predicate relations (10.5%), and adverbs (6.5%).

It is evident by now that students who are exposed mainly to the material covered by textbooks may find it difficult to apply their explicit knowledge of English grammar to the sentence questions that appear on TOEIC tests. This would bear out the opinions of many English teachers who, based on their teaching experience (Taniguchi, 1998; Tsuzuki, 2003), believe that to place great importance on the sentence patterns is not as

beneficial as expected when improvement in communicative proficiency is the students' major concern. Based on the results of this survey, the challenge becomes how to make the best use of the concepts of sentence structure and phrase structure in the classroom.

3. Pedagogical Implications

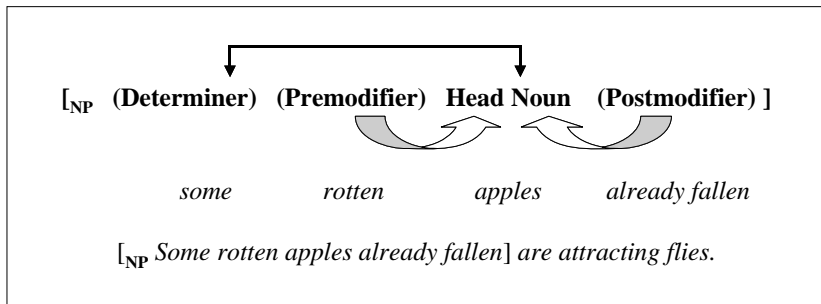
The concept of phrase structures as discussed in the previous subsection and the importance of introducing it in the classroom is not entirely new to English teachers in Japan. For example, in Kanatani (ed.) (1994), it is argued that understanding the notion of *ku* ('phrase') or *matomari* ('coherent syntactic unit') should be regarded as a basis of Japanese junior-high school students' English ability. Moreover, it is pointed out that students tend to have difficulty understanding phrase structures; for example, it is especially difficult for them to grasp the relation between a phrase and its post-modifier. For example, in the single phrase 'a book on the desk,' it is difficult to understand the grammatical relationship between the head noun ('book') and the prepositional phrase modifying it ('on the desk'). It is clear that Japanese students' high school English textbooks do not prepare them for these types of grammatical structures, and it may be that they are not addressed at all. It is also clear that these grammatical structures do appear on TOEIC tests. To bridge that gap, we have devised a method which does not require the memorization of phrase structure rules and regulations.

While some educators propose an inductive process in grammar learning is essential (Seliger, 1975), others advocate for a deductive approach (Shaffer, 1989). We believe that what Corder (1973) claimed more than thirty years ago might well be true: that it is most effective to use a combination of both inductive and deductive approaches. We use both as a basis for the suggested instruction outlined in this section.

3.1 Teaching Phrases with a Deductive Approach

When using this approach, in Step 1, the instructor gives the students a simple, clear explanation of the grammatical concepts of 'sentence' and 'phrase.' In Step 2, the students are presented with a generalized schema of the target structure by using a visual illustration such as a diagram with brackets and arrows, and so on (see **Figure 1**).

Figure 1 Grammar illustration used in deductive approach



In this particular illustration, the parentheses are used to show those words which are optional. The two straight arrows and the line connecting them designate the connection between the *head* noun (which is the central word of the noun phrase) and the *determiner*. The curved arrows indicate the relation of modification between the head noun and the modifiers. There are two purposes for using an illustration such as this: (1) It is important to show as clearly as possible that the whole of a phrase is a coherent unit involving both obligatory and optional members of the phrase; and (2) it is necessary to show that elements within a phrase are grammatically related to one another, particularly with the head. The head determines the major properties of the phrase. In this example, the head noun forms a noun phrase.

In Step 3, the students are presented with basic example phrases that illustrate the generalized target structure. Example noun phrases that show variation derived from the basic phrase structure are listed below:

Sample 6. NP involving a quantifier: [many tickets]

Sample 7. NP involving a prepositional phrase: [the ticket to Boston]

Sample 8. NP involving an adjective: [a tall building]

Sample 9. NP involving an adjective phrase: [a building taller than ours]

Sample 10. NP involving a past participle: [the meeting held at City Hall]

To clarify the close connection between the head and the elements surrounding the head within a phrase, the following examples might be helpful for an *uncountable* head noun:

Sample 11. Uncountable noun without any determiner: [milk]

Sample 12. Uncountable noun with an indefinite singular determiner: *[a milk]

Sample 13. Uncountable noun with an indefinite quantitative determiner: [some milk]

Sample 14. Uncountable noun with a numeral determiner: *[two milks]

Sample 15. Countable noun with a numeral determiner: [two cups of milk]

The above examples of the deductive approach to teaching help students to grasp the general idea of a target phrase structure. Note the asterisk above demotes a non-grammatical structure.

3.2 Teaching Phrases with an Inductive Approach

Next, let's look at an inductive approach to teaching grammar. After providing the deductive method described above for the concept of a phrase structure and some simple examples, the addition of these exercises will help students to understand the targeted structure inductively. One activity students might undertake is this: students are required to underline the part of a sentence that corresponds to a targeted phrase. A sample exercise for a VP is shown below:

Sample 16. Underline each part corresponding to a verb phrase in the following sentences:

(i) The secretary has already sent him the package.

(ii) The announcement said that the bus is delayed.

(iii) I am wondering if Mr. Smith will come.

These are examples of (a) a VP with a ditransitive verb (taking both a direct and indirect object) in the present perfective and an adverb as in (i); (b) a VP with a transitive verb selecting a finite embedded clause as in the matrix clause in (ii); (c) a VP with a passive verb as in the embedded clause in (ii); (d) a VP with a transitive verb selecting an interrogative finite embedded clause as in the matrix clause in (iii); and (e) a VP with an auxiliary verb and an intransitive verb as in the embedded clause in (iii).

The exercises suggested here are intended to help students recognize the internal structure of a phrase. Repeating varieties of the target structure as many times as possible during this exercise is quite important, since the instruction does not rely on detailed descriptions, definitions, and/or explanations of the grammatical concept except for the very first stage of instruction (e.g., showing them a general schema of phrase structure). Students are expected to become aware, by themselves, of the existence of the structure and phrase in a sentence by being exposed to the various examples.

Instruction that is presented in this way helps students to understand that each example of a phrase is an instance of the general structure of the target phrase. The textbook explanations that address simple sentence patterns *do* provide appropriate analyses of those grammatical properties, albeit differently than presented here. However, it is the understanding of phrase structures and the direct link between sentence structures and phrases in the mind of the learner that is critical for understanding and responding to practical expressions, including applications for TOEIC (see discussion in 2.2). After receiving this type of grammar instruction, students should be able to integrate separate pieces of knowledge about different categories into a *unified* knowledge of phrase structure.

4. Case Study

We believe that explicitly introducing the basic concept of phrase structure (as described above) to beginning level students in the classroom is an effective way of bridging the gap between the curriculum content in high school texts and the grammatical features and structures of practical English expressions that are found in TOEIC questions. To test the validity of this hypothesis, we conducted a case study.

4.1 Teaching Procedures

Thirty-four Japanese college freshmen from an English communication class participated in the one semester (11-week) experiment. *Bridge to College English* (O'Brian, Mihara, Fukumoto, Muramatsu, & Kimura, 2003) was the textbook they used. The students met once each week for 90 minutes, and received a total of 16.5 hours of instruction. This

particular class was to be their *only* exposure to English instruction during this experiment.

Pre- and post-TOEIC tests were administered, with the pre-test establishing the students' existing English proficiency levels, and the post-test measuring the effectiveness of the grammar instruction in terms of an increase in scores. They took the pre-test during the first class in April, and the post-test in the final class in July. The same, second official TOEIC test (T. F. Communications, 1997) was utilized for both the pre- and post-tests. The test used was a retired test that had been made available to the public. Using the same test was reported not to have affected the end results, since correct answers were not given to the students at any time, and because there was a three month interval between the pre- and post-tests (Takahashi, Suzuki, & Takefuta, 2003; Chujo, Nishigaki, & Harada, 2004).⁹

The experimental grammar lessons were organized as follows: (1) Explanations of the targeted grammatical structures were presented in Japanese; (2) the students were assigned homework, which they were required to hand in at the next class meeting, in order to (i) ensure its completion and (ii) provide a way to give positive feedback; (3) fifteen practice questions from the grammar textbook (O'Brian et al., 2003), along with the correct answers and enhanced explanations, were selected from the previous weeks' homework and given to the students; (4) careful explanations about the structures of noun phrases and verb phrases were presented in diagrams on the blackboard (see Section 3) to supplement the related chapters of the textbook since the text provided no reference whatsoever to the sentence structure or phrase structure. The text generally followed the same grammatical framework of the high school textbooks examined in this study.

4.2 Results

The pre- and post-test scores are displayed (see **Table 4**) and are categorized as total scores, the scores for the listening section and those for the reading section. The post-test scores showed an average increase of 64.7 points ($t = 6.609^{**}$, $df = 33$, $p < 0.01$) - from 226.9 to 291.6 at the conclusion of this experiment. The result of the two-sample t-test

indicates that the increase between the pre- and post-test was statistically significant at the 1% level. Interestingly, the table also shows that not only the scores for the reading section but also those for the listening section had improved and that each increase was statistically significant at the 1% level.

Table 4 Pre- and Post- TOEIC Test Scores

	Total Score	Listening Score	Reading Score
Pre-test (April)	226.9	116.3	110.6
Post-test (July)	291.6	147.8	143.8
Difference	64.7	31.5	33.2
t	6.609**	5.796**	3.623**

** $p < .01$

The graphical view of the distribution of the TOEIC scores is shown in **Figure 2**. In the histogram, the length of the white and shaded bars shows, for each range, the number of students who gained the scores within that range. The white bars and the shaded bars represent the number of subjects in the pre-test distribution and those in the post-test distribution, respectively. Compared with the pre-test, the center of the post-test distribution is located in the higher scores. The chart shows that, apparently, the average score was improved because most of the subjects, not a limited part of the subjects, improved their scores. Therefore, we conclude (1) that the enhanced grammar instruction conducted in this case study was effective and (2) that it helped college students at the beginning level to improve their ability to communicate in the English language (as measured by the TOEIC scores) within a short period of time.

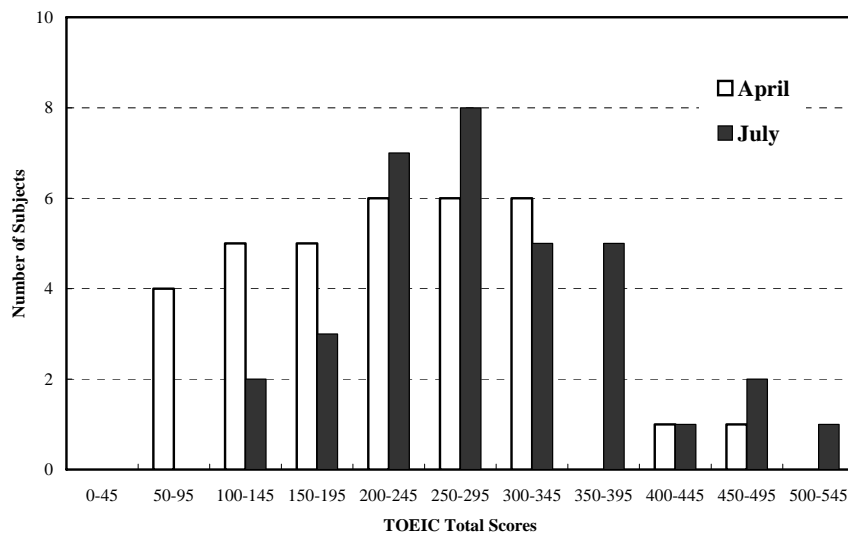


Figure 2 Differences between Pre- and Post-Scores

Moreover, according to our class evaluation questionnaire conducted in the final class, students indicated the instruction of the basic grammatical structures of English was appreciated and motivation for improvement on TOEIC scores was increased.

In order to establish that the results were derived from the grammar instruction as given in this case study rather than from other factors (e.g., that the students became familiar with the question format in TOEIC tests or that they had a strong incentive for raising TOEIC scores), we instructed a similar English communication freshmen class using traditional teaching methods (Uchibori & Chujo, 2005). The grammar instruction was conducted using the identical textbook and similar procedures as in the case study discussed in 4.1. The differences were (i) that the instructor did not provide the explanations about the structures of noun phrases and verb phrases, and (ii) that the instructor taught a supplementary vocabulary of 200 words which appeared frequently in TOEIC. The class was tested in the same manner as the present case study (see 4.2). In a comparison of the scores of these two case studies, the latter (which received traditional grammar instruction) showed little improvement. This result supports a validation of the effectiveness of the proposed method of grammar instruction, at least for beginning level students.

5. Conclusion

Most instruction and reference materials that concern the teaching of English grammar at the high school level in Japan are in accordance with the Education Ministry's school course guidelines. The instruction of grammar within such a framework is often criticized for its apparent failure to sufficiently develop students' abilities to communicate in practical English - abilities that are highly-rated by the current global business community. It is therefore essential to explore better grammar to improve communicative proficiency. The goal of increasing TOEIC scores is a measurable, concrete step in that direction.

This study demonstrates how such a problem could be addressed with an analytical study (a) of the grammatical explanations found in the senior high school textbooks that are widely used in Japan and (b) of the question sentences in the reading section of the TOEIC. In so doing, it was possible to determine which grammatical features and/or structures are essential for understanding the grammatical context of such questions. We have identified interesting patterns by studying the frequency of grammatical features and structures that, when compared, revealed discrepancies; i.e., that high school textbooks provided grammar explanations that produced knowledge that was generally not required for taking the TOEIC, and that those same texts provided insufficient and, sometimes, no explanations that produced knowledge for structures that are required. The most notable of these are phrase structures, because the TOEIC requires that examinees take a closer look at the basic structures of fundamental phrasal elements of a sentence.

Pedagogical suggestions include (a) providing students with a clear explanation of phrase structures and (b) allowing them to apply this knowledge to many examples. A case study was subsequently conducted to prove the usefulness of these techniques.

As an extension of this study, we are exploring the possibilities inherent in computer-assisted language learning (such as learner-centered interactive activities) and are developing e-learning materials that adapt the grammar instruction discussed here with an

eye to teaching beginning-level learners practical grammar in a more efficient way (Uchibori & Chujo, 2005). It is hoped that the approach to grammar instruction suggested in this paper will further contribute to the steady and effective improvement of English education.

Notes

1. While some educators may argue that a pencil and paper test is not effective at measuring communicative competence, the TOEIC remains the international standard. In addition, a significant number of Japanese students will take the TOEIC at some point in their academic lives, and TOEIC scores are used as criteria worldwide by institutions, companies and governments. For these reasons, it has been chosen as a measure of both grammatical and communicative competence for the purposes of this study.
2. See Krashen (1985) for the opposite view, which regards explicit input as peripheral and insignificant, but implicit comprehensible input as essential. See also Harley and Swain (1984) for a study against such a view, which points out that ample comprehensible input by itself is not sufficient as the only source of input to acquire the knowledge of the target language. For a detailed discussion of concepts such as implicit/explicit learning, consciousness-raising, noticing, and focus-on-form as well as relevant technical details, readers are referred to papers in Doughty and Long (eds.), (2003), Doughty and Williams (eds.), (1998), Ellis, N. (ed.), (1994), Rutherford and Sharwood Smith (eds), (1988) and Schmidt (ed.), (1995).
3. This study does not include the *Reading* and *Writing* textbooks belonging to the series, since an examination of 18 series or total of 54 copies which include *English I* and *II*, *Reading* and *Writing* showed that the grammatical explanation was given in the *I* and *II* textbooks.
4. The items classified here include: Inversion, Emphasis, Ellipsis, Adverb, Conjunction, Narrative, Sentence Type, Negation, and Inanimate subject.
5. In the tables, we showed each ratio to one decimal place. Accordingly, the total of the percentage appearing in the table amounts to approximately 100.0.

6. The items classified here include: Gerund, Sentence Type, Negation, *It*-Subject Construction, Concessive Construction, Inversion, Narrative, Emphasis, and Subjunctive Mood.
7. The definition of a phrase here differs significantly from the definition by *School English Grammar* (Murata, 1984).
8. This is the sum of the ratio of prepositions (5.4%) and that of the structure of PP (5.3%).
9. 100 questions from the listening section and 50 out of 100 questions from the reading section were used. The full score for the listening section and that for the reading section are 495 points and 450 points, respectively. The doubled number for the correct answers for the reading questions is converted into the corresponding score based on the conversion table given for this test. The split-half reliability estimate of the 50 questions in the reading section was .731.

References

- Canale, M. & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47.
- Chujo, K., Nishigaki, C., & Harada, Y. (2004). Gakushuu kouka wo takameru shokyuusha-you eigo CD-ROM kyouzai no katsuyou to sono kouka [Combining various types of CALL materials and their effect on improving beginning-level students' communicative proficiency], *Computer & Education*, 17, 83-91.
- Coder, S. P. (1973). Pedagogic grammars. In W. E. Rutherford and M. S. Smith (Eds.), *Grammar and second language teaching*. New York: Newbury House, 1988.
- DeKeyser, R. M. (1995). Learning second language grammar rules: An experiment with a miniature linguistic system. *Studies in Second Language Acquisition*, 19, 195-221.
- Doughty, C. and Long, M. (eds.) (2003). *The handbook of second language acquisition*. Malden, Mass.: Blackwell Publishing.
- Doughty, C. and Williams, J. (eds.) (1998). *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Ellis, N. (ed.) (1994). *Implicit and explicit learning of language*. London: Academic Press.

- Harley, B. and Swain, M. (1984). The interlanguage of immersion students and its implications for second language teaching. In Davies, A. et al. (Eds.), *Interlanguage* (pp. 291-311). Edinburgh: Edinburgh University Press.
- Ishiguro, A. et al. (2002a). *Polestar English Course I*. Tokyo: Suken Shuppan.
- Ishiguro, A. et al. (2002b). *Polestar English Course II*. Tokyo: Suken Shuppan.
- Kanatani, K. (ed.) (1994). *Teichaku Jyuushi no Eigo Tesuto Hoo [English Test Method with The Emphasis on Stability]*. Tokyo: Kagensya.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. London: Longman.
- Lightbown, P. M. & Spada, N. (1990). Focus-on-Form and corrective feedback in communicative language teaching: Effects on second language learning. *Studies in Second Language Acquisition*, 12, 429-448.
- Long, M. (1991). Focus on form: A design feature in language teaching methodology. In K. de Bot, R.B. Ginsberg and C. Kramsch, C. (Eds.), *Foreign language research in cross-cultural perspective* (pp. 39-52). Amsterdam: John Benjamins.
- Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. C. Richie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). New York: Academic Press.
- Ministry of Education. (1989) *Chyuugakkoo gakusyuu sidoo yooryou (Heisei Gan'nen, 3 Gatsu) [The Junior High School Course Guidelines (March, Heisei 1)]*.
- Ministry of Education, Culture, Sports, Science and Technology. (1999) *Chyuugakkoo gakusyuu sidoo yooryou (Heisei 10 nen, 12 Gatsu) [The Junior High School Course Guidelines (December, Heisei 10)]*.
- Murata, Y. (1984). Bun (I). *Kooza gakkoo eibumpoo no kiso [The foundation of the school grammar]*, 7. Tokyo: Kenkyuusya Syuppan.
- O'Brien, T., Miyahara, K., Fukumoto, Y., Muramatsu, H., and Kimura, H. (2003). *Bumpoo chuushin no daigaku eigo [Bridge to college English]*. Tokyo: Nan'un-do.
- Onions, C. T. (1971). *Modern English syntax*. London: Routledge & Kegan Paul.
- Pupura, J. (2004). *Assessing grammar*. Cambridge: Cambridge University Press.
- Rutherford, W. (1987). *Second language grammar: Learning and teaching*. London: Longman.

- Rutherford and Sharwood Smith (eds) (1988). *Grammar and second language teaching: A book of readings*. New York: Newbury House.
- Seliger, H. (1975). Inductive method and deductive method in language teaching: A re-examination. *International Review of Applied Linguistics*, 13, 1-18.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R. (ed.) (1995). *Attention and awareness in foreign language learning*. Honolulu: University of Hawai'i Press.
- Shaffer, C. (1989). A comparison of inductive and deductive approaches to teaching foreign languages. *The Modern Language Journal*, 73(4), 395-402.
- Sharwood Smith, M. (1981). Consciousness-raising and the second language acquisition. *Applied Linguistics* 2, 159-168.
- Shimada, M. et al. (2002a). *Milestone English Course I*. Tokyo: Keirinkan.
- Shimada, M. et al. (2002b). *Milestone English Course II*. Tokyo: Keirinkan.
- Suenaga, K. et al. (2002a). *Unicorn English Course I*. Tokyo: Bun-eido.
- Suenaga, K. et al. (2002b). *Unicorn English Course II*. Tokyo: Bun-eido.
- Takahashi, H., Suzuki, H., Takefuta, Y. (2003). CALL kyoozai niyoru jikogakusyuu to jyugyookatudo o yuugosasete daigakusei eigo chookairyoku no yousei [An integration of CALL self-study and classroom activities for improving Japanese college learners' English listening skills]. *Nihon Kyouiku Kougakkai Ronbunsi*, 27(3), 305-314.
- Takashima, H. (1995). *Communication ni tsunagaru bunpou shidou [A form-focused approach to communication in English theory and practice in the Japanese classroom]*. Tokyo: Taishukan.
- Takashima, H. & Ellis, R. (1999). Output enhancement and the acquisition of the past tense. In R. Ellis (Ed.), *Learning a second language through interaction* (pp. 173-188). Amsterdam: John Benjamins.
- Taniguchi, K. (1998). *Eigo kyouiku kaizen eno philosophy [Philosophy of improving English education]*. Tokyo: Taishukan.
- T. F. Communications. (1997). Practice TOEIC. *TOEIC Friends*, 3(4), 24-53.
- T. F. Communications. (2003a). Practice TOEIC. *TOEIC Friends*, 9(4), 49-85.

- T. F. Communications. (2003a). Practice TOEIC. *TOEIC Friends*, 9(5), 41-77.
- The Chauncy Group International. (2000). *TOEIC koushiki guide & mondaishuu*. Tokyo: IIBC.
- The Chauncy Group International. (2002). *TOEIC koushiki guide & mondaishuu Vol.2*. Tokyo: IIBC.
- TOEIC Un'ei Iinkai. (1981). *Dai-ikkai TOEIC mondaishu [The 1st Official TOEIC Test]*. Tokyo: Eibun Asahi.
- TOEIC Un'ei Iinkai. (1982). *Dai-sankai TOEIC mondaishu [The 3rd Official TOEIC Test]*. Tokyo: Eibun Asahi.
- TOEIC Un'ei Iinkai. (2005). *TOEIC test 2004 data and analysis*. Tokyo: IIBC.
- Tsuzuki, H. (2003). Koukou eigo ni okeru gobun'kei shidou ni kansuru kousatsu [A study on the teaching five sentence patterns in senior high school classroom], *Hakodate Eibungaku*, 42, 125-144.
- Uchibori, A. & Chujo, K. (2005). Daigaku shokuyuu reberu gakushuusha no eigo communication nouryoku koujou ni muketa CALL bunpou-ryoku yousei-you software no kaiatsu [The development of grammar CD-ROM material to improve communicative proficiency of beginning-level college students], *Journal of the College of Industrial Technology, Nihon University*, 38, 39-49.
- Zhou, Y. P. (1991). The effect of explicit instruction on the acquisition of English grammatical structures by Chinese learners. In C. James and P. Garrett (Eds.), *Language awareness in the classroom*. London: Longman, 254-277.