

## Selected Can-Do Statements and Learning Materials for ATR CALL BRIX: Helping University Students in Japan Improve Their TOEIC Scores

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**Abstract.** This paper reports on the use of can-do statements (CDS) for the development of learning materials to prepare Japanese university students for the Test of English for International Communication (TOEIC). These learning materials have been made available on ATR CALL BRIX (<http://www.atr-lt.jp/products/brix/index.html>), a www-based courseware with a learning management system (LMS) which contains study logs, achievement rate reports on student-set goals, the identification of students' weak points, and advice on test-taking strategies. CDS, the specific behaviors that an examinee at a certain score level can be expected to be able to perform in English (Chauncey Group International, 2000) have been conventionally used as descriptors to explain test scores to educators and employers who use TOEIC scores to assess the English proficiency levels of students and prospective employees. Official CDS published for the TOEIC 600-score level, and the CDS, at comparable levels, for the Society for Testing English Proficiency test (STEP), and for the Common European Framework of Reference for Languages (CEFR) were used to compile this study's CDS set. The CDS were given to 592 students as a self-report inventory immediately after they took a TOEIC test. The CDS were then used to develop TOEIC learning materials which were trialed in a TOEIC skill-building course for 22 students. According to comparisons of pre- and post-course TOEIC scores, it was concluded that the use of CDS-based TOEIC learning tasks, which include advice on test-taking strategies, in a www-based course may help students improve their TOEIC scores.

**Keywords:** TOEIC, can-do statements, learning materials development, www-based courseware, test-wiseness.

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## 1. Introduction

In 2008, about 778,000 people in Japan took the TOEIC Listening and Reading Tests, administered for the creator of the test, Educational Testing Service, by a public-interest NPO, The Institute for International Business Communication (IIBC, 2011), at official test centers; and many more people took a special institutional version of the test at schools and companies (McCrostie, 2009). Because of its widespread use in the business community, today virtually every university student who hopes to get a job in which English proficiency is a requirement wishes to present evidence to company recruiters of a good TOEIC score. A 'good' TOEIC score has been defined by individual companies; and, certain levels of TOEIC scores are required for initial employment, promotions, and foreign assignments. It is believed, according to Terauchi, Koike, and Takada (n.d.), that people must have a score of more than 800 to be able to conduct international business negotiations in English; and thus, a TOEIC score of 800 is a common target for university students. However, the average TOEIC score of first-year university students in Japan is 419 (IIBC, 2011); and so, in order to prepare students for their careers, TOEIC test preparation courses and intensive seminars have become a standard part of the curriculum at many universities.

In order to help university students improve their TOEIC scores, the authors of this paper developed TOEIC learning materials based on can-do statements. In foreign language education, CDS have been defined as "descriptions of the competence of an individual language user" (Imig & O'Dwyer, 2010, p. 2) and used as a means of clarifying plans to improve general EFL teaching practices (e.g., Hiromori, 2009; Yamanishi & Hiromori, 2008). A new set of CDS was compiled by using CDS from three sources: TOEIC CDS at the 600-score level with a more or less balanced proficiency in the listening and reading sections of the test (Chauncey Group International, 2000), and the CDS, at comparable levels, for the Society for Testing English Proficiency test – STEP – (Society for Testing English Proficiency, 2006), and for the Common European Framework of Reference for Languages – CEFR – (Council of Europe, 2001).

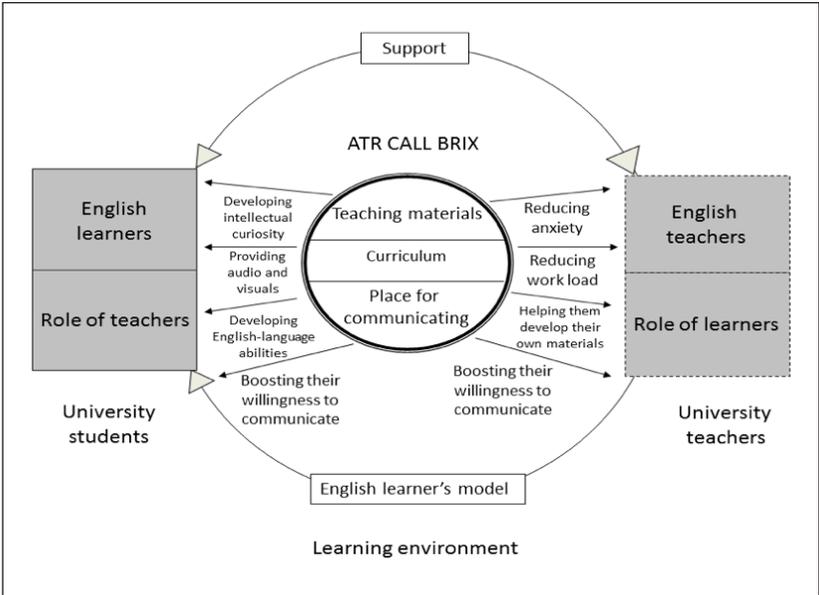
The 600-score level was chosen because it was approximately mid-way between the average first-year university student's TOEIC score and the common fourth-year target of 800. A 600-score was seen as a reasonable target for most students after one or two years of EFL study. STEP and CEFR CDS were reviewed in the compilation process to make links with many students' past experiences with English-language proficiency testing through STEP tests which are commonly used in Japan from beginning to advanced levels of EFL study to measure progress and also with the CEFR standards used as benchmarks by international businesses in Japan. Experienced EFL teachers made the CDS selections intuitively based on their knowledge of students' learning needs.

The new set of CDS after confirmation of their recognition by EFL students as descriptors of TOEIC 600-level performance abilities were used to develop TOEIC

learning materials. The materials have been published in ATR CALL BRIX, a www-based courseware in order to make the learning materials available to teachers for in-class coursework and outside-of-class assignments, and also to students to use independently of coursework through the use of computers with Internet access. To enhance independent learning, the courseware includes a learning management system which contains study logs, reports of achievement rates for student-set goals, identification of students' weak points, and advice on test-taking strategies.

The ATR CALL BRIX courseware was designed to create interoperability (Ishikawa, Kondo, & Smith, 2010) which is described in Figure 1. Interoperability, in this case, is the capacity of the ATR CALL BRIX courseware to create a single learning environment in which university students who are trying to improve their TOEIC scores and EFL teachers can collaborate in a learning enterprise. The learning environment is one of teachers and students in a partnership in which teachers can be said to be doing their work most effectively as the students gain independence and control over their own learning.

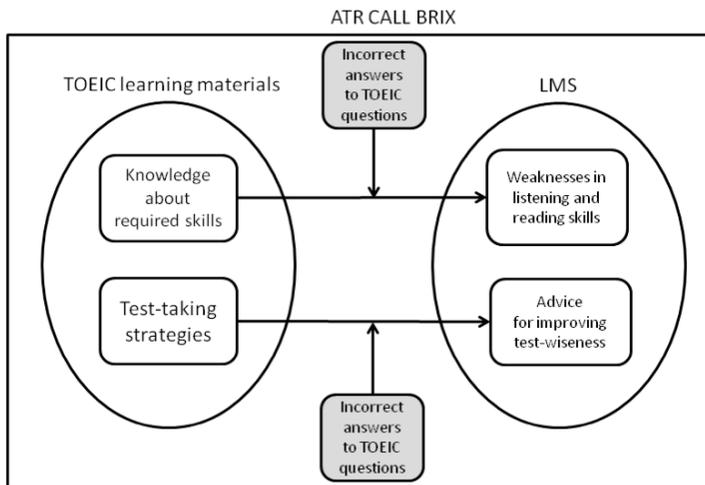
Figure 1. Design principles of ATR CALL BRIX



The TOEIC learning materials for this study consisted of 1,000 practice questions based on CDS, i.e., practice questions which could be supported by the teaching of English-language performance skills. If students completed the TOEIC learning tasks incorrectly, the LMS was activated and advice to overcome weaknesses in listening and

reading abilities appeared on the display screen. Test-taking strategies for improving students' test-wiseness were also developed and included with the learning materials. Test-wiseness is defined as a capacity to utilize the characteristics and format of the test and the test-taking situation to achieve success (Millman, Bishop, & Ebel, 1965; Samacki, 1979). Test-wiseness training can be effective only under specific circumstances (Dolly & Williams, 1986), a learning environment which was created by the repeated use of ATR CALL BRIX system. Figure 2 shows a conceptual diagram of the relationship between the TOEIC learning materials and the LMS in the ATR CALL BRIX courseware.

Figure 2. TOEIC learning materials and the LMS in the ATR CALL BRIX courseware



## 2. Research questions

This study investigated the following two research questions: 1) Would a new set of 600-score level CDS based on teachers' intuitions as to its potential for creating effective TOEIC learning materials correspond with the beliefs of students, who had received 600-level TOEIC scores, about their own English 'can-do' abilities? 2) Would there be improvements in the scores of students who used TOEIC learning materials developed from this study's CDS?

## 3. Investigation into research question No. 1

### 3.1. Participants

592 EFL students from first to third years at Kyoto University of Foreign Studies in Japan, who took the TOEIC test in January, participated in this study.

**3.2. Method**

In order to answer research question No. 1, the 592 students completed a self-report inventory of the items on the new CDS immediately after they had taken the TOEIC test. On a Likert scale of 1 to 5 the students indicated to what degree they had the English performance skills described by the CDS.

**3.3. Results and discussion**

Pearson’s correlation analysis showed that there was a strong positive correlation between the CDS and students’ TOEIC scores. Students who had scores of approximately 600 reported that they had the performance skills in English described by the study’s CDS. Students who had lower scores reported that they were lacking in the CDS performance skills. Thus, the answer to research question 1 was that the new set of CDS corresponded to the beliefs students at the TOEIC 600-level had about their own English-language performance skills. It was concluded that because of the correspondence between the 600-score level students’ beliefs about their performance skills, the lack of these skills as perceived by lower level students, and the EFL teachers views of a potential constructive relationship between the new CDS and learning materials, the new CDS set would be useful in the development of TOEIC learning materials for students who had lower scores but hoped to reach the 600-score level. **Table 1** shows the correlation among the CDS and students’ TOEIC scores.

Table 1. Correlation among the CDS and participants’ TOEIC scores

**4. Investigation into research question No. 2**

Measure	Mean (SD)	TOEIC listening score	TOEIC reading score	Can-do listening task	Can-do reading task
TOEIC listening score	343.2 (71.95)	1.00	.69*	.45*	.38*
TOEIC reading score	267.00 (68.54)	.69*	1.00	.30*	.39*
Can-do listening task	47.84 (7.61)	.45*	.30*	1.00	.73*
Can-do reading task	60.97 (9.36)	.38*	.39*	.73*	1.00

N = 592; \*p < .001

**4.1. Participants**

22 EFL students at Kyoto University of Foreign Studies in Japan who had TOEIC scores of below 600 participated in this study.

**4.2. Method**

In order to answer research question 2, TOEIC testing was conducted at the beginning of April before the semester started to select 22 students who had TOEIC scores below

600 for a TOEIC skill-building course. The participants used the TOEIC learning materials, which were developed based on this study's CDS set, both in class and outside of class. At the end of the course in July, the 22 students took the TOEIC test a second time.

### 4.3. Results and discussion

A two-tailed *t*-Test was used to measure the participants' listening and reading abilities at the end of the course. According to the results of the test, the participants' listening ability had improved significantly ( $p < .01$ ,  $r = .83$ ), and the participants' reading ability had also improved significantly ( $p < .01$ ,  $r = .53$ ). It was concluded that the participants' listening and reading abilities may have improved through the use of the TOEIC learning materials. Table 2 shows the results of the total scores of the TOEIC test, and the scores for both the listening and reading sections.

Table 2. Results of pre- and post-TOEIC testing

	<i>N</i>	Pre-TOEIC Test		Post-TOEIC Test		Gain	
		Mean	SD	Mean	SD	Mean	SD
Total	22	413.41	82.15	513.18	81.42	99.77	68.31
Listening	22	247.95	54.76	302.27	49.83	54.32	38.18
Reading	22	165.45	37.45	201.91	64.75	36.45	58.48

## 5. Conclusion

The study's two research questions were answered in the affirmative:

- The items on the CDS compiled for this study were confirmed by students at the TOEIC 600-score level to be English-language performance skills they believed they had;
- The TOEIC learning materials which were developed based on the study's CDS was useful in helping students improve their scores.

The next steps will be 1) to verify that the TOEIC learning materials in the ATR CALL BRIX courseware are effective in improving students' TOEIC scores by conducting a study with experimental and control groups, and 2) to identify which test-taking strategies in the TOEIC learning materials were used by students at various score levels in order to provide better advice in the LMS of the ATR CALL BRIX courseware.

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