

Research: Analyze TOEFL Scores of Japanese Students
at UC Riverside Extension and offer information
of the time prediction to achieve
a specific TOEFL Score

— Toward the International Career Creation and Management —

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Abstract

The globalization trend creates a great deal of jobs for international students. However, Japanese students who want to study in the States to prepare a career in international commerce need to obtain more than 550 on the TOEFL test to enter a U.S. university or graduate school and at least 450 for a two-year college. Japanese students as well as other international students at UC Riverside Extension are struggling to attain the 550 TOEFL score without any information about the time it might take, which depends partly upon how hard they study.

This paper reports mainly on the results of analyzing TOEFL scores of Japanese students at UCR Extension 1) to figure out the difference between female and male examinees, 2) to clarify the relationship between students at particular Intensive English Programs (IEP) class levels, and 3) time series of improvement of Japanese students. It also provides information with figures for Japanese students to help them predict when they might attain a 450 or a 550 TOEFL score so that they can plan their successful studies and select future career.

1. Introduction

Because of current globalization, many universities provide international education programs and certificate programs to prepare international students for the global job market. These authors are conducting surveys especially on Japanese university graduates about their international career plans to provide better certificate programs in UC River-

side Extension. We believe that the TOEFL score might be a very basic key to development of a successful study plan and future job selection. On the other hand, some certificate programs might be another way for them to prepare for their future. TOEFL score results are provided to each student and while only he/she can make the improvements, they cannot predict when he/she might attain a specific TOEFL score based on their own past results. It would help to be able to figure out the amount of time needed to achieve a specific TOEFL score, such as a 450 for a two-year college entrance and 550 for university or graduate level entry, if such information and tools are available for comparison and prediction. Because of the time and money constraints, some students might go back to Japan without any certificates, internship experience or getting practical training. But, if they could predict the amount of time needed to attain a specific TOEFL score, they could more realistically select career through alternatives, for example, taking certificate programs such as Global Business Management and the consequent internship with placement in an American company.

Finally, our information in this paper for predicting the time for Japanese students to attain a specific TOEFL score might be applicable to students from other countries, if data of the time series improvement is analyzed according to our proposed steps.

2. TOEFL Data Analysis

TOEFL tests are offered twice each quarter, eight times per year at UC Riverside, University Extension. We analyzed TOEFL data mainly in 2000 and here we reported only Japanese students' calculated time series results of the following:

- (1) Numbers of examinees classified by gender
- (2) Average, the highest and the lowest score, standard deviation of all Japanese examinees
- (3) The relationship between particular students' Intensive English Program (IEP) class level
- (4) TOEFL score time series improvement of individual student over 12 tests from July 1999 to November 2000

We guarded the privacy of examinees, getting all data without any names but identified by their birth date to figure out their time series improvement. In fact, we examined and traced score history of individual student from July 1999 to November 2000 in order to get more information of how he/she improved his/her test scores the first test taken.

2.1 Results of TOEFL Data Analysis

- (1) **Average, the highest and the lowest score, and standard deviation of TOEFL Data**

The results of analysis are shown in Table 2.1 below:

Table 2.1 Average, the highest, lowest score, and standard deviation of TOEFL Data

	Examinees	Jan	Feb	April	May	July	Aug	Oct	Nov
Number of	All	23	24	35	36	32	40	39	36
Examinees	Female	17	19	21	19	20	22	21	20
	Male	6	5	14	17	12	18	18	16
Average	All	486.3	479.2	477.1	472.2	453.3	464.1	463.5	487.3
Score	Female	481.5	477.9	485.0	484.0	458.5	471.0	469.7	475.9
	Male	500.0	484.0	465.3	459.1	444.6	455.7	456.2	496.4
Highest	All	573	567	563	573	563	557	547	593
Lowest		363	383	333	363	340	323	357	407
Score	Female	573	567	563	573	527	557	547	593
		363	397	403	437	340	323	370	430
	Male	530	557	533	567	563	537	527	587
		493	383	333	363	353	370	357	407
Standard	All	51.6	50.0	52.5	47.1	55.0	51.6	48.6	47.1
Deviation	Female	58.2	47.2	41.7	36.7	50.7	54.9	42.8	39.4
	Male	18.7	59.3	63.6	53.5	60.4	46.0	54.0	53.0

The number of female examinees exceeds males every time the test was offered. The average and standard deviation of female testers tended to be higher than the male and the females standard deviation was smaller.

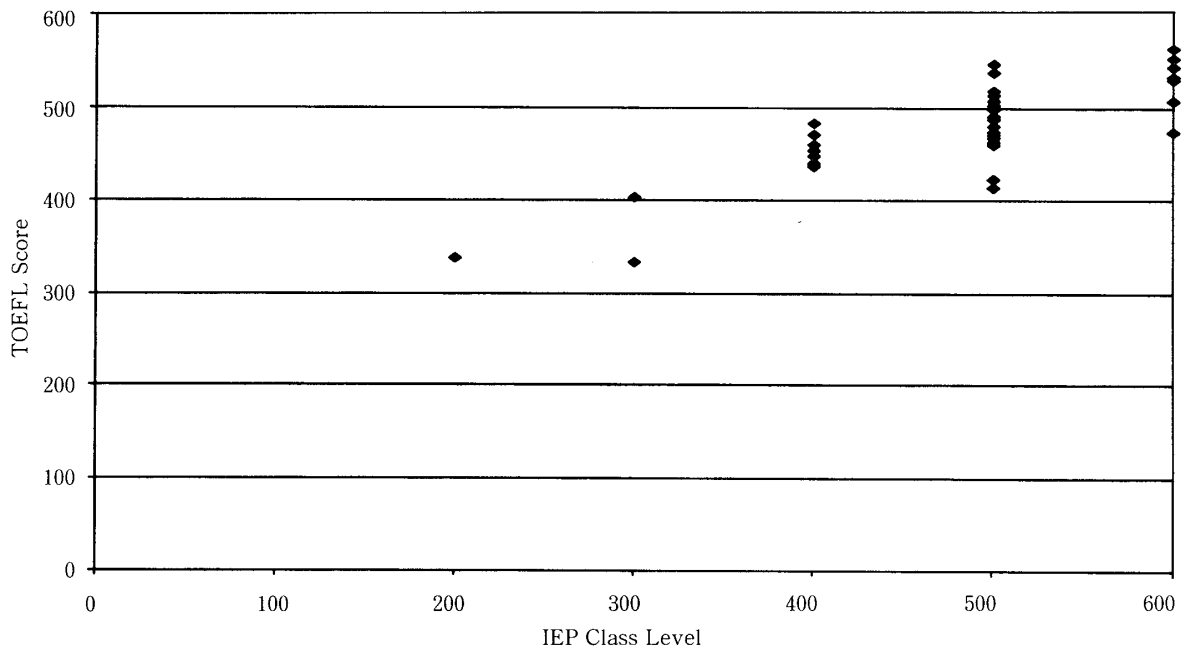
(2) The relationship between particular students' IEP class level and TOEFL Score

The Table 2.2 and Figure 2.1 shows the results in analysis of the correlation coefficient between TOEFL score and IEP (Intensive English Program) class level.

Table 2.2 Correlation Coefficient between TOEFL Score and IEP Class Level

	Examinees	Jan	Feb	April	May	July	Aug	Oct	Nov
Correlation	All	0.66	0.51	0.81	0.74	0.74	0.64	0.72	0.59
Coefficient	Female	0.70	0.46	0.74	0.55	0.75	0.74	0.75	0.63
	Male	0.56	0.67	0.85	0.82	0.72	0.47	0.74	0.53

For all examinees, the highest correlation coefficient value was 0.85 and the lowest was 0.46. For female examinees, the highest was 0.75 and the lowest was 0.46. Male Examinees, the highest correlation coefficient was 0.85 and the lowest was 0.45.



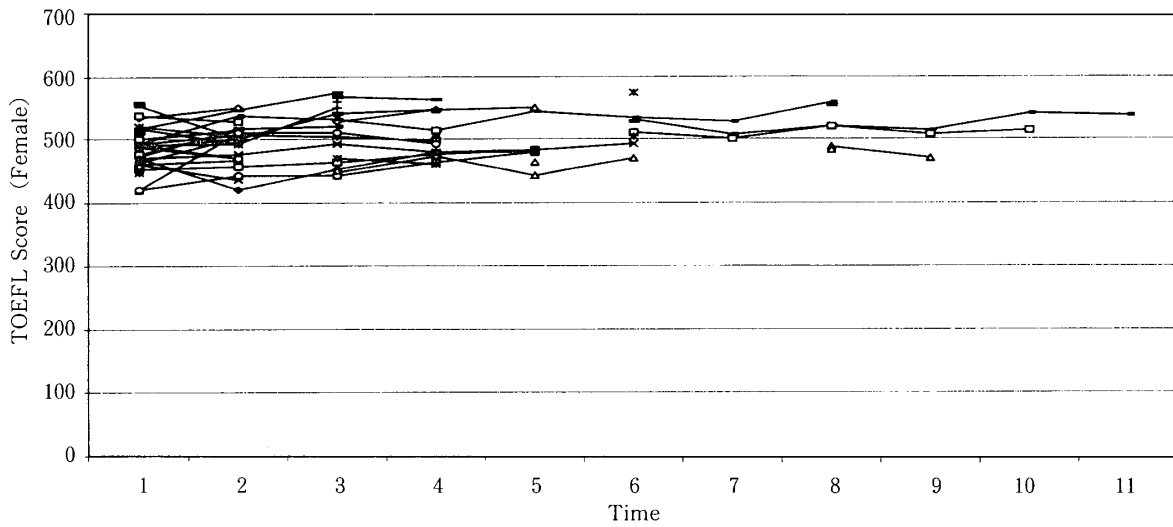


Figure 2.3 Goal of 550 TOEFL Score for a U.S. university or graduate school entrance (Female)

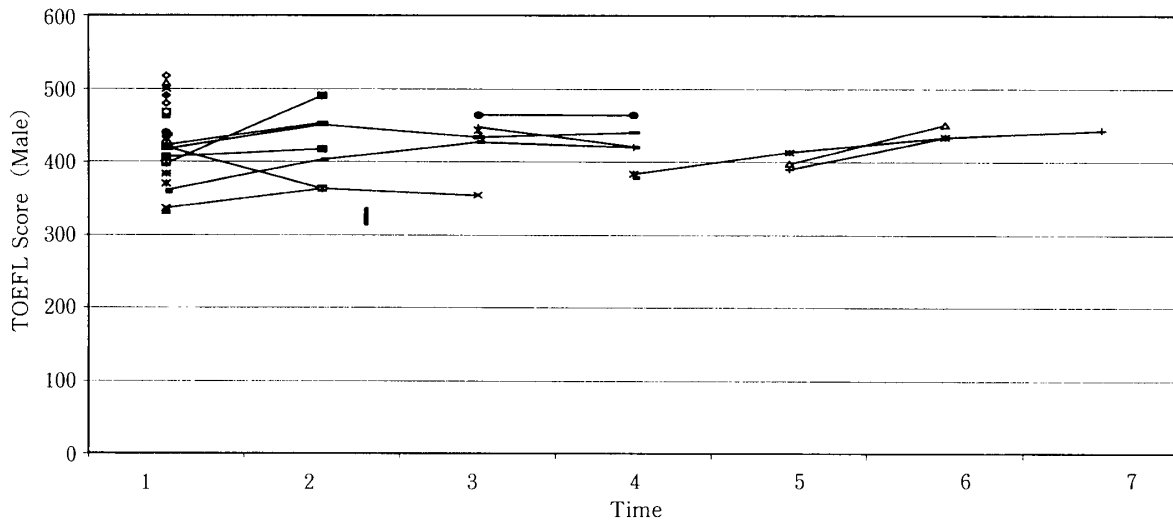


Figure 2.4 Goal of 450 TOEFL Score for a two-year college entrance (Male)

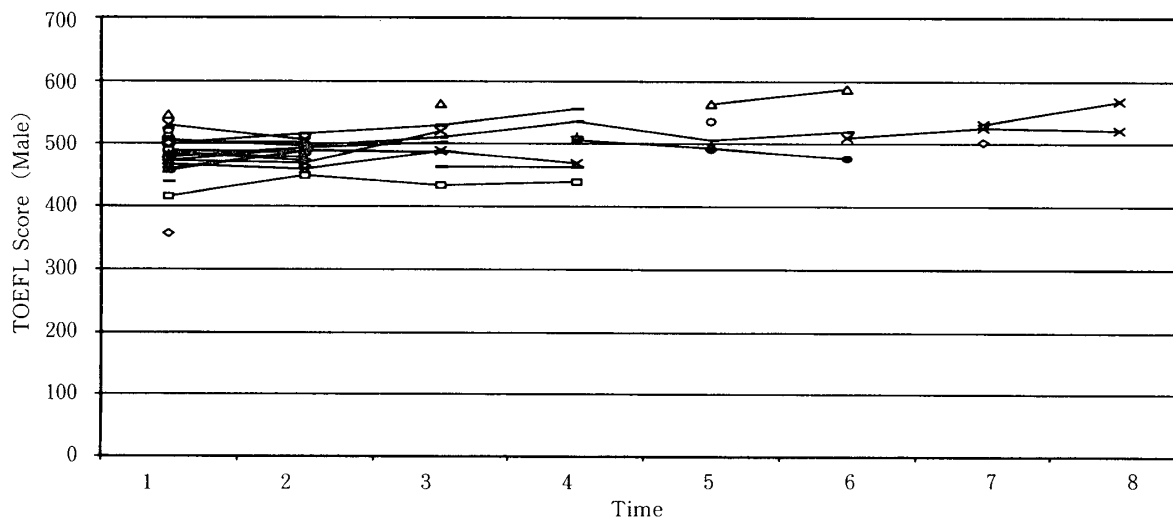


Figure 2.5 Goal of 550 TOEFL Score for a U.S. university or graduate school entrance (Male)

for females whose goal was a 450 TOEFL score for two-year college entrance and Figure 2.2 was about a 550 for university and graduate school. Figure 2.4 and 2.5 show the results on male.

These figures show the difference between a goal of 450 or 550 of TOEFL score for females and males.

3. Application Practice of TOEFL Data Analysis

3.1 Tool for the time prediction

In Table 2.1 and Table 2.2 of correlation coefficient values of IEP class levels and TOEFL scores are between 0.51 and 0.81. Moreover we studied the data of time series improvement of individual student history of TOEFL scores as shown in Figure 2.2 through 2.5. This information is intended to help Japanese students predict the time when they may attain a 450 or a 550 score according the following steps:

- Step 1** Select one of the charts from Figure 2.2 through Figure 2.5 according to your own goal and gender.
- Step 2** Put your own first score and all succeeding scores if you took the more than once on the chart.
- Step 3** Recognize your own score positioned in the past history range and to realize how hard you need to study to attain your goal in taking consideration of your IEP class level.
- Step 4** Compare the line connecting your scores to the line from your last score to your goal.

4. Discussion

There are many studies and academic investigations on TOEFL tests scores with general information provided on their Web site. However, to our knowledge no one has attempted to trace the score history of individual examinee's improvement, perhaps because of the difficulties in obtaining data or because of the lack of understanding the examinees' need for predicting their time to attain a 450 or 550 score for their future studies.

These authors have recognized the necessity of providing more information about TOEFL score history and facilitating effective educational programs such as TOEFL Review classes. Our first attempt was to create a formula for Japanese students to help them predict when they might attain a 450 TOEFL score for a two-year college entrance and a 550 TOEFL score for a U.S. university or graduate school entrance.

We began with the hypothesis that we could formulate the relationships in the formula with variables, coefficients, and constants related to their first TOEFL score, IEP class level, and time series improvement based on previous score. As it turned out, during our analysis,

we realized that an individual improvement was too dependent upon each student's ability. Because of the wide range coefficient correlation 0.47 (lowest) and to 0.85 (highest) between TOEFL score and IEP level (Table 2.2), we could not support construction of a mathematical formula. Therefore, we use our TOEFL data analysis results to provide a four-step guide to help Japanese students figure out more realistic study plan. In fact, the TOEFL Review class instructors also could use these results and proposed steps to obtain a better understanding of their own effectiveness.

Appendix

Intensive English Program (IEP)

This analysis is for foreign students preparing to enter an American college or university and for professionals or for individuals 15 years or older who wish to improve their English ability. Year-round programs are offered in 10-week, 6-week and 4-week sessions. Students attend 24+ hours of English classes per week. Placement is in six levels, beginning to advanced. Levels: 100=Beginning, 200=Low Intermediate, 300=Intermediate, 400=High Intermediate, 500=Advanced, 600=High Advanced

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Reference

TOEFL related Web site <http://www.toefl.org>