

大学間の英語学力比較：1 国立大学と1 私立大学のケース

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60項目からなるMAT（英語適性検査）を用いて、1 国立大学の学生129名と1 私立大学の学生52名からなる181名の工学系学生の英語学力比較を行った。検査の結果は私立大学の学生の方が国立大学の学生より約3ポイント高いことが判明した。また、この数値は統計的に優位差を示す。さらに、国立大学では推薦入学者は検査の平均点を引き下げる要因であることが明確になった。しかし、私立大学では推薦入学者が平均点に影響を与えるかどうかについては確定できない。

Comparing English Ability at One Private and One Public University

David Levin

Introduction

Over recent years, data comparing English learners at different tertiary institutions or in different faculties in Japan have been building up (e.g., Levin, Truscott & Redfield, 1999; Redfield & Levin, 2000; Redfield, 2001; Redfield, Bunday & Nuefer, in press b); however, these studies have involved only private institutions. In Japan, national universities are numerous and graduates of these institutions enjoy a certain amount of prestige due to this public status. In many cases this prestige is well deserved; however, is it safe to assume that all 99 national universities are within the upper tier of all universities in Japan based on student ability? In particular, given that English is one of the core subjects found on all university entrance exams, does the English ability of students attending national universities rise above that of their private counterparts? This limited study seeks to shed light on this question by comparing the English ability of science and technology students from one middle-tier national university (Toyohashi University of Technology) and one upper-tier private university (Kansai University).

Background

Educational Change

Currently, universities in Japan, facing a declining high school student

population and a national budget crisis, are undergoing changes that will most likely have a significant effect on Japanese higher education. Specifically, national universities are in the midst of carrying out government reform measures aimed at creating internationally competitive institutions. As Jannuzi and Mulvey (2002) point out, the Koizumi administration's goals include: saving the government money, giving more autonomy to universities, changing teaching methods, and changing the nature of university tenure. Already the plan has created confusion among the ranks, which is reflected in the following comment (ELT news June 26, 2002):

A recent survey by the Japan Association of National Universities showed that the vast majority of administrators are confused by a government reform plan to turn the nation's 99 national universities into independent entities. The plan is an attempt to address the problem of the declining birthrate and calls for many large-scale mergers. But staff say the plan is too vague, is slanted toward major universities in populous areas, and doesn't detail the level of discretionary power to be extended to each school.

How these reforms will affect the level of English ability throughout the entire educational system is now of great concern to those in the English teaching profession. Keeping in mind the monolithic bureaucracy through which these changes will be effected, it is easy to become skeptical about the degree and speed to which these changes will occur. As Finkelstein (2003) states, "The foundation of Japan's national universities is about to be shaken—perhaps a lot, perhaps only a little, depending on whom you ask—by a "new" reform initiative . . ." Nevertheless, change is afoot, and English education in Japan will hopefully be one of the beneficiaries.

The Center Test

All national universities in Japan use the College Entrance Examination Center Test as a first-stage measure used to evaluate prospective students wanting to enter their institutions. "This test is conducted jointly by colleges and universities for the main purpose of judging the level of applicants' attainments of basic study in their high school years." (Kiriara Shoten, 2003) Students must then take an additional entrance exam for each individual institution. Since 1990, private colleges and universities have also been

allowed to participate in this exam. Although the Center Test allows an *a la carte* system for choosing the subjects on the exam for which students will be judged, English is considered a de facto choice as one of those subjects. Concerning this study, Kansai University does not participate in the College Entrance Examination Center Test, but English is included as a subject on their entrance exams.

Matriculation

Toyohashi University of Technology. At Toyohashi University of Technology, students are admitted through different entrance procedures. One, of course, is that regular high school students take the Center Test and the university's own exam, and based on their scores, are admitted into the university. However, this second exam does not test English ability since it is assumed that the Center Test has already adequately measured it. Another way for students to enter this university is by *suisen* status. *Suisen* students, common throughout all Japanese universities, are students who are somehow *recommended* and, therefore, are not required to take an entrance exam. At this university, new, first-year *suisen* students come from technical high schools. New, third-year *suisen* students come from either two-year colleges (*tandai*) or institutions that combine three years of high school with two years of college (*koosen*). Foreign students are admitted through a complicated system that will not be discussed in this study; however, as a general rule, most of these students' English ability is relatively high and new policies are being instituted to ensure that all new foreign students will meet minimum English requirements.

Kansai University. As with many private universities, Kansai University admits regular students based solely on its own devised entrance exam. In addition, *suisen* students are also admitted without having to take the entrance exam. These students are often recommended by their high school teachers (often certain high schools are given a specific allotment of students they can recommend), have athletic talent or come from high schools within the university's system.

Rationale

Gleaned from the previous information, we have a general picture

of two universities: one public and one private. Both universities test for English ability, but both universities also accept non-tested *suisen* students. The public university, a national university, relies on a standardized, nationwide test to judge English ability, while the private university employs its own unique measure to accomplish this task. The public university gains status and prestige, in part, by carrying the *National* label which implies a higher standard in Japan. The private university is generally recognized as one of the top four private institutions in the Kansai area: Kansai University, Kwansai Gakuin, Doshisha and Ritsumeikan University (commonly referred to as: Kan-Kan-Dou-Ritsu).

What we do not have a better picture of, however, is how the students at these two types of institutions compare vis-à-vis English ability. More specifically, if we compare students within one academic field (science and technology), how do the entrance procedure processes and English curricula affect the level of English ability of these learners at these two universities?

Method

Participants

181 science and technology students from Toyohashi University of Technology (TUT) and Kansai University (KU) participated in this study. All participants were students enrolled in some type of English language course at the time the instrument was administered. The English courses at TUT are streamed according to a placement test, with the highest level class receiving the designate 'A' followed by the next class 'B' and so on. Out of the 129 participants from TUT, 39 were taking a first-year English course at the 'B' level; 42 participants were enrolled in a second-year English course at the 'B' level; 29 participants were enrolled in a second-year course at the 'C' level; and 19 were enrolled in a fourth-year course at the 'C' level. The TUT students all had majors from a variety of science and technology disciplines. The participants from KU, all from the Department of Engineering, were enrolled in two, second-year English courses—1 listening and 1 writing—but these participants were students of mixed levels: not streamed.

A further breakdown of the TUT participants shows that 61 participants

graduated from regular high school (thus required to take the Center Test); 39 participants graduated from technical high schools (admitted as *suisen*); 11 participants graduated from five-year high school/college institutions (*koosen*—also admitted as *suisen*); 15 participants were *ronin* (7 of which had some 2-year college experience) and admitted as regular students; and 3 were foreign students.

Instrument

Parts I–III of the Matsushita Pilot Placement test (MAT), a 60 item multiple-choice exam containing sections covering structure, vocabulary, reading, and cloze questions was chosen as the measuring instrument. The MAT is an aptitude measure written specifically for post-secondary Japanese learners of English.

Procedure

At TUT, the regular classroom English teacher administered the MAT early during second trimester of the academic year, in September 2003. The trimesters at TUT last 9 or 10 weeks. At KU, the regular classroom English teacher administered the MAT during the first week of the first semester of the academic year, April 2003. Forty minutes were allowed for completion of the test.

Statistical Analysis

InStat 3 for the Macintosh was used to derive descriptive statistics and to run the Kolmogorov and Smirnov Normality Test necessary to gauge the Gaussian distribution. The alpha for statistical significance was set at .05.

Research Questions

1. Will there be any statistical differences in English ability between English language learners at TUT and KU, as measured by the MAT?
2. Will the removal of the *suisen* scores from the TUT data affect the difference, if any, found in question 1?

Results

Overall proficiency

The combined classes at TUT (N=129) had a mean score on the MAT of 33.969 (out of 60) with a standard deviation of 10.169 and a standard error of .8953. The minimum and maximum scores were 7 and 56 respectively; the median score was 35. Finally, the lower and upper 95% confidence intervals (CI) were 32.214 and 35.724 respectively. As for KU, the mean score on the MAT was 36.808 with a standard deviation of 6.411 and a standard error of .8890. The minimum and maximum scores were 24 and 51 respectively; the median score was 36. Finally, the lower and upper 95% CI were 35.021 and 38.594 respectively (see Table 1 for descriptive statistics).

Table 1. MAT Descriptive Statistics for TUT and KU

| Parameter: | TUT | KU |
|------------------|--------|--------|
| Mean: | 33.969 | 36.808 |
| # of points (N): | 129 | 52 |
| Std deviation: | 10.169 | 6.411 |
| Std error: | 0.8953 | 0.8890 |
| Minimum: | 7 | 24 |
| Maximum: | 56 | 51 |
| Median: | 35 | 36 |
| Lower 95% CI: | 32.214 | 35.021 |
| Upper 95% CI: | 35.724 | 38.594 |

Because the data for both TUT and KU passed the Kolmogorov and Smirnov (KS) test for determining Gaussian distribution, .07526 and .06475 respectively, a statistically powerful t-test was chosen to further analyze the data. Using a Welch correction, due to different standard deviations, a statistically significant two-tailed P value of .0260 was obtained (Welch's approximate $t=2.250$ with 146 degrees of freedom). Therefore, the observed difference between the means of the two groups is considered significant, with the KU participants scoring higher on the MAT than the ones at TUT (see Figure 1).

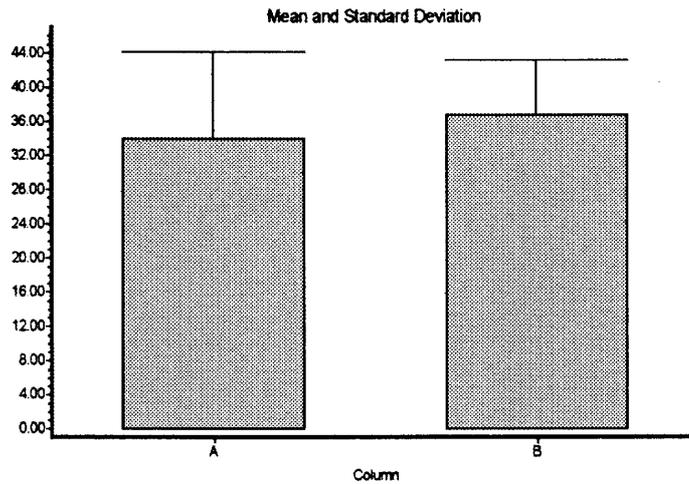


Figure 1. Mean and standard deviation for TUT and KU participants (A=TUT, B=KU).

Overall proficiency without TUT suisen

The combined classes at TUT without the *suisen* students (N=79) had a mean score on the MAT of 36.861 (out of 60) with a standard deviation of 9.219 and a standard error of 1.037. The minimum and maximum scores were 19 and 56 respectively; the median score was 37. Finally, the lower and upper 95% CI were 32.4.793 and 38.929 respectively. As for KU, of course, the descriptive statistics remain the same as before.

Table 2. MAT Descriptive Statistics Without *Suisen* Participants for TUT

| Parameter: | TUT | KU |
|------------------|--------|--------|
| Mean: | 36.861 | 36.808 |
| # of points (N): | 79 | 52 |
| Std deviation: | 9.219 | 6.411 |
| Std error: | 1.037 | 0.8890 |
| Minimum: | 19 | 24 |
| Maximum: | 56 | 51 |
| Median: | 37 | 36.5 |
| Lower 95% CI: | 34.793 | 35.021 |
| Upper 95% CI: | 38.929 | 38.594 |

Because the data for both TUT and KU passed the KS test for determining Gaussian distribution, .07565 and .06475 respectively, a statistically powerful t-test was chosen to further analyze the data. Using a Welch correction, due to different standard deviations, a statistically significant two-tailed P value of .9691 was obtained (Welch's approximate $t=.03885$ with 128 degrees of freedom). Therefore, the observed difference between the means of the two groups is considered not significant indicating that, without the *suisen* student scores included in the data for TUT, the two groups' English proficiency as measured by the MAT is the same (see Figure 2).

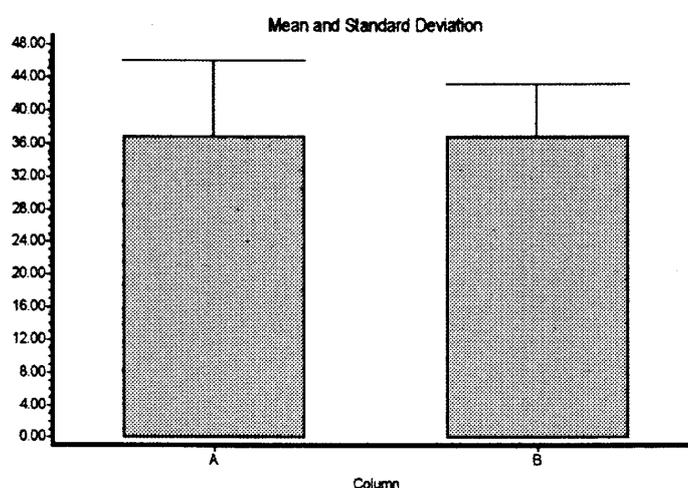


Figure 2. Mean and standard deviation for TUT and KU participants without the *suisen* participants for TUT (A=TUT, B=KU).

Discussion

The results of this study show that, overall, the English learner participants from Kansai University are slightly better than those English learners from Toyohashi University of Technology as measure by the MAT. Reasons for this difference are varied. First of all, it can be argued that the required score on the Center Test necessary for entry into TUT is set at a standard lower than the score—on KU's entrance exam—necessary to gain admittance into KU. Given the make-up of the entrance exams, which involves testing in several subjects, it is difficult to isolate the degree to which English influenced the overall score. However, due to competition for an ever declining student population, it is unlikely, even though it is a

national university, that TUT will raise its cut-off scores on the Center Test to ensure higher scholastic ability—much less, English ability.

Of course, these results can also be interpreted in a more positive light. By comparing the Center Test cut-off scores of national universities, TUT can be considered a middle-tier university. However, in terms of English ability, it would seem that this middle-tier university's learners are only slightly lower than a top-tier private university. It would be interesting to compare these same learners from KU with those from a top-tier national university.

In addition to incoming students' English ability, it would be hoped that the university-level English education these participants had received had had some impact as well. We do know that students do make progress over the course of a year (Redfield, Bunday & Nuefer, in press b), and they can even make progress over the course of a semester (12 to 15 weeks) (Miller & Redfield, 2000; Levin & Redfield, 2003). Unfortunately, a more complete sample of English learners from KU was not possible and the timing of the measurement was not uniform. Therefore, it would be difficult to isolate the curriculum factor.

A factor that does seem to play a role in student English ability at TUT is the matriculation procedure known as *suisen*. With the removal of this particular group of participants, we find that the English ability of the TUT students rises up to the level of the KU students. However, because the number of *suisen* students in the KU group was unknown, it would not be fair to say that regularly admitted students at TUT are at the same level in English ability as those from KU. It could be that, without the KU *suisen* students, their English ability level would rise as well, possibly to create a statistically significant difference once again.

What this second set of statistical data does show is that, not surprisingly, students who do not take the Center Exam are going to have an English ability that is lower than their regularly matriculated peers. Indeed, this claim is supported by two studies (Redfield 2001a; Redfield & Campbell, in press). However, two other studies (Redfield, Bunday & Nuefer, in press b; Levin & Redfield, 2003) show that *suisen* students can demonstrate English ability at a level equal to other students after university instruction. This does not seem to be the case at TUT. One possible explanation could be that the incoming *suisen* English ability at TUT is somewhat lower than that found in

the subjects of the studies mentioned above. In any event, *suisen* students are a permanent fixture in the make-up of the student body at most tertiary institutions in Japan, and this is just another facet of English education in Japan that a university instructor will face.

Conclusion

181 science and technology students from one national university (Toyohashi University of Technology; N=129) and one private university (Kansai University; N=52) were compared to determine the difference, if any, in English ability as determined by a 60 item English aptitude test (MAT). The results showed that the participants from KU displayed a slightly higher (about 3 points), but statistically significant, level of English proficiency than their national university counterparts at TUT. In addition, it was shown that the *suisen* group of students at TUT was responsible for the lowering of the mean score; it could not be determined if this *suisen* effect was present at KU.

These results indicate that there is most likely a wide range in student English ability at national universities and that this national status is by no means an indicator of any English ability standard to be found in the students at these particular institutions. Further studies involving a wider range of national universities would be needed to confirm this assertion. It is clear from this study that students in the field of science and technology need special attention when it comes to English education. And the *suisen* learners, at least at TUT, require even more effective instruction. The English ability at both institutions was rather low, indicative of the participants' field of study more than the institutions themselves—a fact that can be seen in at least one study (Levin, Truscott & Redfield, 1999). Of course, perhaps the greatest change that would go a long way in raising English ability—smaller class size—is unlikely to be fulfilled due to increasing budgetary constraints. Therefore, effective English education becomes even more of a challenge at both public and private institutions of higher learning.

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