

## Examining Underprepared Students

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### Abstract

Universities in Japan have been suffering a shortage of applicants due to the declining number of 18-year-old population. To secure intake quotas and finance, many universities have been accepting many underprepared students, which may result in increases of academically low proficiency level students. In such a situation, roles of placement have become more important. Placement tests are given to new students to measure their knowledge in various subject areas. They are usually used for placing students into appropriate level of classes. It secures a proficiency-based learning, provide individuals equitable, relevant learning opportunities. With such diagnoses, it is possible to identify unprepared students who need appropriate and effective support while necessary intervention would be considered. However, for better understanding of these underprepared students, further information on individuals should be necessary. The aim of this study is to investigate underprepared students. Their English proficiency levels, vocabulary sizes, educational backgrounds, admission styles, their attitude and perception toward English learning, and GPA scores are revealed. The analysis involves numerical presentation, distributions, frequency, and correlations. The study found correlations among the above-mentioned factors. It is also found that distinctive characteristics of underprepared students when they are compared with other students whose proficiency levels are not low. It is hoped the results found in this study may help to build more appropriate and supportive educational environment as well as to have better predictions of early failure (possible drop out).

Keywords: Underprepared Students, Admission Styles, Systematic Support

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## **Introduction**

According to the Ministry of Education, Culture, Sports, Science and Technology (MEXT), the percentage of students proceeding to university has been steadily increasing, reaching a record high of 61.1% in 2023. The declining population of 18 year olds has resulted in various issues in tertiary level education, which remain unsolved. In 2023, it was reported that more than half the private universities in Japan are under-enrolled. These universities have been struggling to secure the intake quota. In such situations, universities widen the acceptable range to gain more applicants.

However, such a measure results in a decline in academic levels. Therefore, many universities are now dealing with underprepared students. Hence, it is essential to identify their problems and provide them with support to enable them to continue their education and graduate from university.

### ***Statement of the Problem***

Due to the declining birthrate as well as the college-aged population, many Japanese universities have been unable to gain applicants and are taking measures to secure the required number of students. Universities favor early admissions, wherein students gain acceptance during November or December instead of during the regular admission period from January to March. For early admission, students are not required to take subject tests, instead recommendations from their high school, their high school records, short essays written by them, and interviews are used for admission decisions. Another strategy used by universities is to enroll students from certain high schools (Shiteikou), thus assuring students of admission based on the recommendation of these high schools.

Such integrated selection methods, in which students are admitted without taking subject tests are becoming popular. According to the MEXT, the number of students enrolled through these methods has been increasing. Although these measures are effective in securing a certain number of applicants, students are not selected through university entrance exams, which may be the main cause of declining academic levels or the ability gaps among students.

### ***Significance of the Study***

In the current scenario, placement tests play an important role. Placement tests are administered to new students to assess their knowledge of various subject areas. These tests are used to place students into appropriate levels of classes. Moreover, through placement tests, unprepared students who require appropriate and effective support can be identified. A better understanding of such underprepared students including their proficiency levels, their background, and the difficulties they face is necessary to provide them with appropriate support.

### ***Purpose of the Study***

Therefore, this study focuses on students with low English placement scores. To better understand the needs of these students, further information on these individuals is required. The aim of this study is to examine students with low proficiency English. We examine their academic proficiency which includes their mathematics and Japanese placement scores,

vocabulary size, GPA, final examination scores in the spring and fall semesters, and their admission method. In addition, their attitude and perception toward English learning are also examined. The data is analyzed using numerical presentation, distributions, frequency, and correlations of data.

## **Background Information of the Study**

### ***Use of English Placement Test***

The university examined in this study has been using an English placement test since 2007 to identify students with low English proficiency and to create special support classes for these students. This year, the number of students placed into the special support class increased and two of the students dropped out of university.

### ***Japanese Students' Vocabulary Size***

The vocabulary sizes of Japanese university students were tested using various measures. The following tests are well known and widely used.

Vocabulary size test by Nation and Beglar (2007).

Vocabulary Level Test (VLT) version 1 by Schmitt (2000) and VLT version 2 by Schmitt, Schmitt, and Clapham (2001).

Vocabulary levels dictation test by Fountain and Nation (2000).

Vocabulary size test by Mochizuki (1998).

Vocabulary size test for Japanese EFL learners using the new JACET list of 8,000 basic words by Hamada et.al. (2021).

The reliability and validity of most of these tests have been examined. The sizes estimated by Nation's test are about 2000 to 2500, while other measures indicate a range from 1541 to 4130, with averages of 2370 to 3800. A vocabulary size of 2000 to 3000 is considered adequate for daily conversation, whereas 5000 is needed for reading authentic text.

### ***Current Situation in Japanese Universities***

After the population of 18-year-olds peaked at 2.05 million in 1992, the number has since shrunk to almost half, and has been steadily decreasing. According to the Statistics Bureau of the Ministry of Internal Affairs and Communications Japan, the number of 18-year-olds was at a record low of 1.06 million as of December 2023.

Currently there are 793 universities in Japan, of which 616 (77.6%) are private. In 2024, three new private universities will be opened despite the decline in the population of 18-year-olds. In 2023, more than 50% of the universities could not meet the admission quota, which means that more than half the universities did not have sufficient applicants. It has been reported that this situation has hit universities hard, especially small and regional private ones, who find it difficult to attract students.

The following measures are being taken to fill the capacity.

1. Widening the range of acceptance: Universities are accepting students who would not have been accepted under previous conditions.

2. Using alternative admission methods: Besides, general admissions in which students take subject tests, students are admitted through other methods, such as integral admissions, recommendations, and high school route admissions. For these admissions, the focus is usually students' high school records, their essays, and interviews. According to the MEXT, the percentage of students admitted without taking the general examination reached 50.3 % in 2022, thus exceeding the percentage of applicants admitted through general examinations.

3. Encouraging early admissions: In Japan, the school year begins in April. Generally, university entrance exams are held in February or March. However, recent trends show that early admissions, wherein applicants are admitted in November or December of the previous year, are increasing. Typically, early admissions do not require subject tests. These admissions are based on integrated selection or recommendations, and student evaluations usually involve presentations, group discussions, and writing thematic essays.

### ***Issue of Concern***

To secure the admission quota and for financial reasons, universities are accepting more students with low academic levels or underprepared students. In such a situation, the primary role of entrance examinations, in which students' academic proficiency is measured, is declining. Moreover, there is a wide gap in students' academic proficiency levels, between those admitted through general admissions and those who have never taken subject tests. It has been reported that students admitted without taking subject tests tend to lag behind. Many universities are currently dealing with students with a low academic proficiency. Remedial education, pre-entry education, preparing for basic subjects, and freshman seminars have been introduced for students to learn the necessary skills needed for university classes.

### ***Overview of the Current Study***

#### ***Context***

A small private university, which offers majors in rehabilitation (physical therapy and occupational therapy), human communication, and nursing, was examined.

#### ***Admission Style***

In 2023 and 2024, 11% and 14% of students took general subject tests, respectively. Thus, in both the years, over 80% of students did not take subject tests.

#### ***English Education***

English is a required course for the freshman and sophomore years. Content-based ESP (English for Specific Purposes) is used.

The Japanese higher education system has been struggling with a demographic decline in the university-aged population since the 1990s.

#### ***Participants***

The participants were 26 first year students in the special class comprising students who achieved less than 30% on the placement test.

#### ***Methods Used in This Study***

We reviewed students' records including their method of admission, their scores for three placement tests in English, Math, and Japanese, vocabulary size, GPA (Grade Point Average),

and final scores. Students' perception and attitude toward English learning were measured through an online survey conducted using Microsoft Teams. For the survey, 20 questions (Likert scale) were prepared based on the study by Agawa (2016). The questionnaire identified students' intrinsic/extrinsic motivation as well as negative and positive attitudes toward English learning.

### ***Analysis***

SPSS and Excel were used for numerical presentation, distributions, frequency, and correlation analyses.

### ***English Placement Test***

Figure 1 presents the longitudinal records of the placement test. Placement tests were introduced in 2007 to identify students' English proficiency and form a special group for students with an extremely low proficiency level so that instructors could provide them with extra support.

Figure 1 shows the changes in placement test scores over the last 17 years. The average placement score for the first year was 60.78, and has been falling ever since with a record low of 43.58 in 2022. The average score of the participants in the current study was 50.4. Moreover, the percentage of students who scored less than one-third, as well as those who scored less than half of the total score has been increasing. In 2007, only 15.74 % of students scored less than half of the total score on the test; however, in 2023, 53.30% of students did not score even half and 21.7% did not score even one-third of the total score.

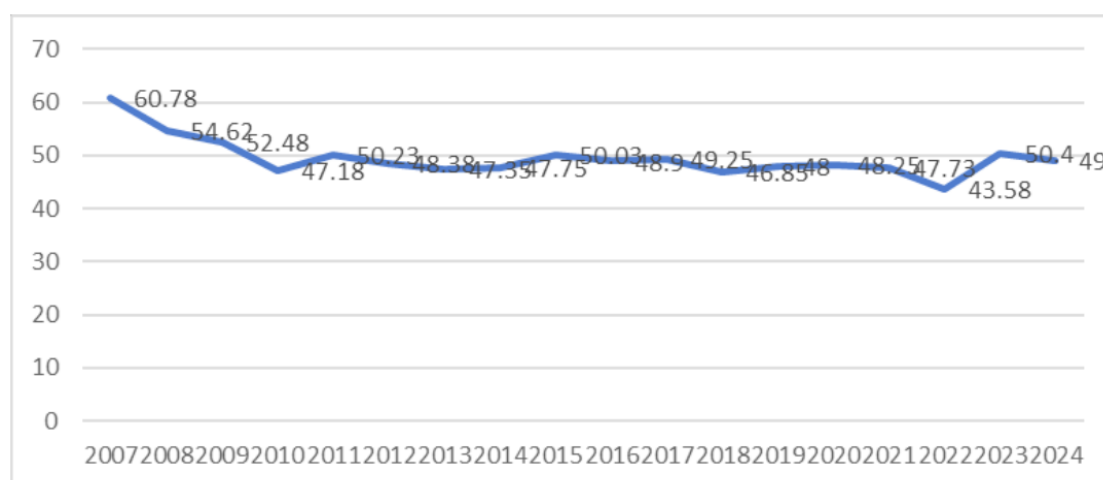


Figure 1: Average placement scores

## **Conclusion**

### ***Findings***

Regarding the admission method of the participants, 48% and 40% of students in the special class were admitted through integrated admissions and high school recommendations, respectively. The remaining were admitted through general recommendations and some dropped out. Thus, all students in this class had never taken subject tests and were admitted early in November or December.

The average placement test scores for three tests are presented in Table 1.

|             | Average score of the special class | Average score of all new students |
|-------------|------------------------------------|-----------------------------------|
| English     | 26.7                               | 50.4                              |
| Mathematics | 41                                 | 51                                |
| Japanese    | 42                                 | 56                                |

Table 1: Results of three placement tests

As shown in Table 1, students in the special class with low scores in the English placement test also had low scores in the mathematics and Japanese placement tests.

The average vocabulary size of students in the regular and special classes were 2086 and 1541, respectively. Given that the average vocabulary size of Japanese university students is about 2370 and a vocabulary size of 2000 to 3000 is required for daily conversation, whereas 5000 is needed for reading authentic text, it appears that students in the special class had a small vocabulary size, which was not enough for daily conversation.

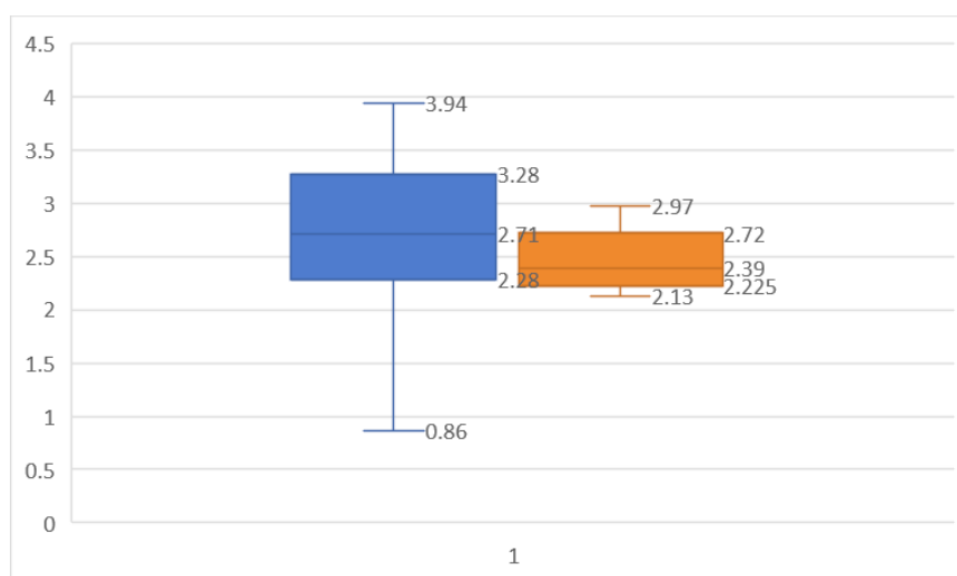


Figure 2: GPA

Figure 2 illustrates the box-whisker plot for GPA. The average GPA of students in the regular class was 2.69 while that of students in the special class was 2.56. Moreover, the interquartile range was extremely short for the special class.

Regarding the final examination scores of the spring and fall semesters, the following was observed. For the spring semester, the average score of the regular class was 74 and that of the special class was 67. For the fall semester, the average score of the regular class was 81 while that of the special class was 68.

## Results of the Survey

To present the results, we compared the responses of students in the special class with those of other students. We focused on the percentage of students who either "strongly agree" or "agree" to a particular statement.

| Statement                                                             | Special class | Regular class |
|-----------------------------------------------------------------------|---------------|---------------|
| I study English because I feel like to get exposed to English itself. | 10            | 17            |
| I study English out of a necessity to pass exams.                     | 45            | 27            |
| If I did not need to learn English, I would not.                      | 50            | 30            |
| I simply don't want to study English anymore.'                        | 23            | 1             |

Table 2: Results of the survey

Table 2 shows that for the statement "I study English because I like the exposure to English", which indicates students' level of intrinsic motivation, only 10% of students in the special class agreed compared with 17% of regular students.

The statement "I study English out of necessity, to pass exams," indicates extrinsic motivation. Of the students in the special class, 45% agreed with the statement while 27% of regular students answered affirmatively.

For the next statement, "If I did not need to learn English, I would not," which indicates students' negative attitude toward learning English, 50% of those in the special class agreed while only 30% of regular students agreed. About half of the students in the special class said that they would not.

The last statement "I simply don't want to study English anymore," also indicates students' negative attitude; 23% of students in the special class agreed while only 1% of regular students agreed. Thus, about a quarter of the students in the special class did not want to study English.

In this study, a correlation analysis was performed among variables. Table 3 indicates the results. A moderate correlation was found between the Japanese placement test scores and GPA ( $p < 0.05$  .654). The GPA and final scores also show moderate-to-strong correlations. Moreover, a strong correlation ( $p < 0.05$  .897) was found between spring and fall final scores.

|          |                        | English | Math  | Japanese | VST   | GPA    | Style | Spring | Fall   |
|----------|------------------------|---------|-------|----------|-------|--------|-------|--------|--------|
| English  | Pearson's correlation  | 1       | .387  | .341     | -.149 | .422   | .273  | .423   | .277   |
|          | Significance (2 tails) |         | .154  | .111     | .499  | .064   | .230  | .056   | .251   |
|          | N                      | 23      | 15    | 23       | 23    | 20     | 21    | 21     | 19     |
| Math     | Pearson's correlation  | .387    | 1     | -.077    | .183  | .218   | .325  | .233   | .063   |
|          | Significance (2 tails) | .154    |       | .786     | .514  | .496   | .278  | .443   | .854   |
|          | N                      | 15      | 15    | 15       | 15    | 12     | 13    | 13     | 11     |
| Japanese | Pearson's correlation  | .341    | -.077 | 1        | .132  | .654** | .096  | .461*  | .524*  |
|          | Significance (2 tails) | .111    | .786  |          | .547  | .002   | .678  | .035   | .021   |
|          | N                      | 23      | 15    | 23       | 23    | 20     | 21    | 21     | 19     |
| VST      | Pearson's correlation  | -.149   | .183  | .132     | 1     | -.185  | .087  | -.010  | -.171  |
|          | Significance (2 tails) | .499    | .514  | .547     |       | .486   | .707  | .965   | .484   |
|          | N                      | 23      | 15    | 23       | 23    | 20     | 21    | 21     | 19     |
| GPA      | Pearson's correlation  | .422    | .218  | .654**   | -.185 | 1      | .077  | .597** | .660** |
|          | Significance (2 tails) | .064    | .496  | .002     | .486  |        | .761  | .007   | .002   |
|          | N                      | 20      | 12    | 20       | 20    | 20     | 18    | 19     | 19     |
| Style    | Pearson's correlation  | .273    | .325  | .096     | .087  | .077   | 1     | .075   | .142   |
|          | Significance (2 tails) | .230    | .278  | .678     | .707  | .761   |       | .761   | .573   |
|          | N                      | 21      | 13    | 21       | 21    | 18     | 21    | 19     | 18     |
| Spring   | Pearson's correlation  | .423    | .233  | .461*    | -.010 | .597** | .075  | 1      | .897** |
|          | Significance (2 tails) | .056    | .443  | .035     | .965  | .007   | .761  |        | .000   |
|          | N                      | 21      | 13    | 21       | 21    | 19     | 19    | 21     | 18     |
| Fall     | Pearson's correlation  | .277    | .063  | .524*    | -.171 | .660** | .142  | .897** | 1      |
|          | Significance (2 tails) | .251    | .854  | .021     | .484  | .002   | .573  | .000   |        |
|          | N                      | 19      | 11    | 19       | 19    | 19     | 18    | 18     | 19     |

\*\*. P &lt; .001

\*. P &lt; .005

Table 3: Correlational analysis

### Summary of Findings

- It was found that the special class comprised students who entered the university through integrated selection, recommendations, and designated school admissions in November or December. These students did not take subject tests, which means that their academic performance was not measured before they entered university.
- This study found that students with low scores on the English placement test had low scores for other variables, such as the Math and Japanese placement tests, vocabulary size, GPA, and final exams. The survey results indicate that more students in the special class had low intrinsic motivation and high extrinsic motivation toward English learning. They had developed negative attitudes toward English learning.
- Two students dropped out of school during the study.
- In the correlation analysis, a moderate-to-strong correlation was found among various variables.
- Strong correlations were found between spring and fall final scores ( $p < 0.05$  .897), Japanese placement scores and GPA ( $p < 0.05$  .654), and GPA and final exam scores.

### Implications of the Study

The study revealed that those with low scores on the English placement test also had low scores for other variables and low motivation. Therefore, support for these underprepared

(early admission) students should be the focus. Various approaches can be used such as building a pre-education system as many students have a four-month period before starting university. Introducing on-line self-study site could also be considered. Online sites, where English is taught through games and music, video sharing websites, such as YouTube, or movies can be used to increase their motivation.

In April, it is often found that students do not know how to study. Therefore, it is suggested that students should be shown effective learning strategies or study techniques before starting school. Moreover, students should acquire good study habits and motivate themselves to study. This study found a strong correlation between Japanese placement scores and GPA. Improving Japanese language skills such as writing, summarizing, reading, and presentation skills could be the key to succeeding in college.

Finally but more importantly, students with learning disorders (LD) should be considered. In the special class, some students were identified as having LD or attention-deficit/hyperactivity disorder (ADHD). In fact, an increased incidence of LD or ADHD among university students has been reported. Therefore, an early evaluation of students' basic academic abilities is urgently required to determine whether they are likely to complete college courses successfully. Hence, early diagnosis of LD or ADHD is noteworthy.

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