

# Implementation of a Vocabulary Learning and Testing Module

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## I Introduction

As part of a curriculum overhaul, the decision was made to rethink the first-year students' compulsory English education at the author's university. Previously, all students had been required to take a four-skills class twice-a-week. Non-Japanese instructors taught the highest-level classes, and Japanese instructors taught the remainder. In line with the university's vision of improving all students' ability to communicate in spoken English, all students (regardless of level) would now take a reading and writing-focused class with a Japanese instructor once a week, and a listening and speaking-focused class with an instructor for whom English is his/ her first language, also once a week. This paper introduces the vocabulary learning and testing element of the English listening and speaking class syllabus.

## II Establishing the new subject

The first challenge faced in creating a new English subject was scheduling enough classes. In planning meetings, it was agreed that having more than twenty students in any given class would defeat the object of trying to foster communication skills: a number supported by research into optimal class sizes (Harris & Miyake, 2017). With around 500 students expected to enter the university at the start of the academic year, a minimum of twenty-five classes would be necessary to accommodate everyone. Due to limitations on the number of available classrooms, it was calculated those classes would need to be spread out over four lesson periods and five additional part-time

instructors would need to be hired.

As a compulsory subject with twenty-five classes and eight different instructors, the need for uniformity and consistency was paramount. The classes were divided into three ability levels determined by the results of a placement test administered before the first week of the spring semester. Each level used a corresponding level textbook from the same series. This ensured that all students would receive the same lesson approach and format, but with content appropriate to their respective levels.

All five of the new part-time instructors were hired for their experience and expertise in the field. Nevertheless, for the sake of consistency and ease of management and coordination, every instructor was required to adhere to the same syllabus. As a compulsory subject, it was also necessary to ensure that all students received the same basic content. This measure also had the secondary benefit of reducing the part-timers' workloads in terms of planning and administration.

### III Focusing on vocabulary

To supplement the standardized lesson content, the author and two other full-time colleagues were keen to make vocabulary-building one of the main goals of the new course. Whilst there is much to be said for taking a holistic approach to language teaching, establishing a discreet vocabulary component was deemed to have merit. Knowledge of vocabulary not only facilitates comprehension (input) but also enables expression (output). Furthermore, findings such as Alderson's DIALANG analysis (2005) suggest that vocabulary size is a strong determiner of overall language ability. Therefore, in addition to the textbook, which focuses on natural pronunciation and speaking strategies, a vocabulary module would be implemented whereby students would learn, and be tested on, new words each week. The challenge was to find an effective way of ensuring that all 500 students in all 25 classes received the same vocabulary input and were tested under the same condi-

tions regardless of which of the eight potential instructors happened to be responsible for them.

#### IV Learning the vocabulary

Vocabulary items were sourced from the Oxford 2000 list of keywords: described as the ‘most important and useful words to learn at the early stages of language learning’ (Blass). Word frequency was felt to be the most important basis for item selection, as supported by Milton (2009) and Schmitt (2010, 2012). Weekly word lists (15 items per week) were compiled and given to all instructors and students (see Appendix 1). All classes, regardless of level, were assigned the same lists to learn. Efforts were made to make the lists perspicuous for students. Instead of using the traditional parts of speech categorization found in dictionaries (e.g., noun, verb, adjective, adverb etc.), the non-technical labels ‘thing,’ ‘person,’ ‘action,’ ‘quality’ and ‘other’ were applied. Wherever feasible, common derivatives of vocabulary items were also included, such as ‘noisy’ and ‘noisily’ for the item ‘noise.’

All students were provided with access to a tailor-made searchable online dictionary. Students were instructed to study the definitions and example sentences for each of the items on their weekly vocabulary lists (for items with multiple meanings, students were instructed to learn the two most common usages). Definitions, and the quality thereof, can vary widely from one dictionary to another. Therefore, it was made clear to all students that they must use the specified online dictionary. Access to the online dictionary was generously provided by the publisher of the textbooks. An example of the online dictionary’s pages can be found in Appendix 2.

To try and ensure that students studied for the test each week, instructors asked them to show written evidence. To this end, some instructors created weekly worksheets to be completed while others had students keep a vocabulary notebook which was checked on a weekly basis. Successful completion of this task would earn students points that counted toward their over-

all final grade. In this way, students were rewarded for making efforts to learn the vocabulary, even if their test scores were disappointing.

## V Test format

There are numerous ways to test vocabulary: each with its own merits and flaws (Nation, 2012). For ease of administration and marking (particularly for the new part-time instructors), a multiple-choice format was adopted. The weekly test comprises ten minimal context, supply type questions. Each question consists of a stem: an example sentence taken directly from the on-line dictionary with the target word omitted. Students must then select the correct word to complete the question sentence from eight options. Within these eight options, efforts were made to include distractors: words that are incorrect but plausible in terms of grammar or syntax. The inclusion of distractors encourages students to thoroughly learn the target vocabulary and reduces the chance of correct answers being arrived at by educated guesswork (Shin et al. 2019). Despite Nation's (2012) advocacy of first language use in vocabulary testing, students were not tested on their ability to translate between English and Japanese. It was felt that such an approach would not only be incongruous with the 'all-English' format of the lessons but also unfair to students of non-Japanese nationality.

## VI Test administration

Tests were created and administered using Microsoft Forms software. Microsoft Forms is part of Microsoft's online Office suite and can be used to make both online surveys and quizzes (tests). There were several reasons for choosing this application. First, and most important, was the superior level of security it offers. Responses can be limited to an administrator-specified recipient list or to those of users with an institution-linked email account. Second was ease of use. Tests can be created on any device with access to a stable internet connection. The application also allows test makers to set multiple choice questions, open-ended questions, or a mix of the two.

As the application is cloud-based, all test drafts are saved automatically and editing is possible at any time. Third was accessibility. The application creates both URL and QR Code links for subjects to access the test. The test can also be emailed directly to specified recipients. The test maker can nominate collaborators, allowing others to both edit questions and view results. The application's presentation of results was the fourth reason for its selection. Forms enables the test maker (and collaborators) to not only view individual subject's results (Appendix 3) but also review answering trends for each question. The application automatically generates graphs and charts to show the distribution of answers for each choice (Appendix 4). Data can also be downloaded in its entirety in Excel format.

A drawback to this form of testing is the potential for cheating. As smartphones become more powerful, and their users more proficient, it is possible for someone to rapidly switch from the testing application to a translation application and find the correct answers. However, by setting a strict time limit and patrolling the classroom, the teacher should be able to prevent this from happening most of the time. Preventing cheating became much more difficult once classes were forced to go online because of the declaration of a state of emergency in the institution's prefecture however. Teachers responsible for administering the tests discussed potential solutions to this problem. It was agreed that there was no fail-safe way of ensuring that students could not cheat in the test. The time limit remained the most important preventative measure. Requiring students to keep their webcams turned on for the duration of the test was also deemed an effective way of discouraging cheating. Screen-sharing software was not a viable solution given the number of students and limited resources available.

Appendix 5 shows how the test appears to students on their smartphones. The questions are clearly visible and there is even an 'immersive reader' function which reads all questions and answer options aloud for visually-impaired students. Once a student is satisfied that they have completed the test to the best of their ability, they click the 'submit' button at the end of the

page. The student is then immediately notified of their result, and that result is stored for their teacher's reference.

## VII Initial findings and considerations for the future

Thus far, the vocabulary module can be considered a success in terms of teacher adoption and student participation. Initially, with all classes scheduled to take place on either Mondays or Wednesdays, it was planned to send out the next week's test along with the previous week's test results to all teachers each weekend. However, this plan failed to take into consideration the possibility that individual teachers may cancel and reschedule classes. One solution to this problem would be to establish a centralized point where instructors can access tests and scores for themselves.

At the end of the semester, once a full batch of tests have been administered, test score data will be fully analyzed. It is hoped to identify which instructors were most successful in helping their students to attain high scores. The most effective instructors will then be interviewed to learn what approaches were taken to prepare students for the tests. These techniques will then be shared with all instructors with a view to increasing student test performance across the board.

The vocabulary items were chosen for their high frequency and are sure to be encountered by students in their future English studies. However, factors such as time constraints prevented the test makers from linking the vocabulary items with vocabulary encountered in the lessons. With an aim to facilitating learning and increasing the likelihood of retention, it is hoped to be able to integrate the vocabulary items with lesson content in the future. To what extent this will be possible remains to be seen but it is certainly worthy of consideration.

## VIII Conclusion

This paper has explained the background, planning, and implementation of a vocabulary learning and testing module to be used in a compulsory oral English class for first-year students. It is hoped to revisit this topic once a full cycle of tests has been administered and the data can be critically analyzed.

## Appendix 1

	Word	Thing	Person	Action	Quality	Other	Connected words / Sentences
1	customer / customer			X	X	X	
2	hungry	X	X	X		X	
3	chocolate		X	X	X	X	
4	expensive / expensive		X	X	X	X	
5	profiter	X			X	X	
6	elusive / elusive		X		X	X	
7	meal		X		X	X	
8	equipment		X	X	X	X	
9	season			X		X	
10	various		X	X	X	X	
11	moment / moment / moment		X	X	X	X	
12	call				X	X	
13	serious / seriously	X	X	X		X	
14	bake / baker	X			X	X	
15	left		X		X	X	

Appendix 1 shows an example of the students' weekly word list. The fifteen vocabulary items and relevant derivatives are listed vertically on the left most column. The 'X' marks in the table denote which categories each item falls under. The column on the right is available for students to write in common collocations or useful example sentences.

## Appendix 2

[illegible]

Appendix 2 shows an example of a page from the students' online dictionary. Each entry includes its part of speech, pronunciation, Japanese translation, and an example sentence to illustrate its usage.



### Appendix 3

Review: Vocabulary Test 1

People Questions

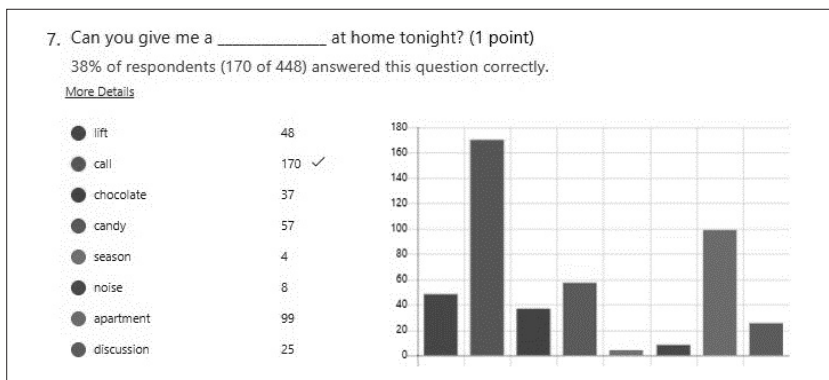
< Respondent 1 > Time to complete: 03:26 Points: 9/10

1. Who is your teacher? (先生の名前)

0 / 0 pts

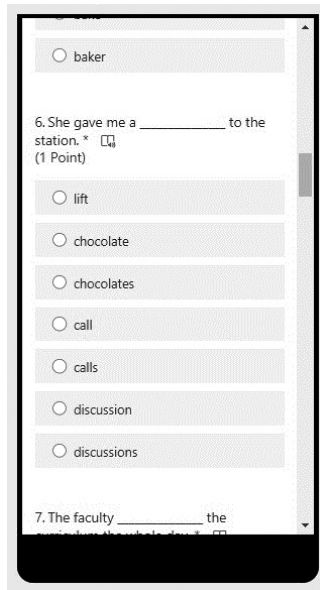
Appendix 3 shows the control panel of Microsoft Forms accessible to the test maker and authorized collaborators. The control panel allows users to view results either by individual question or respondent. In addition to the total score, each respondent's time taken to complete the test is provided.

### Appendix 4



Appendix 4 shows an example of how Microsoft Forms automatically creates graphs to represent the results of the test. The '✓' mark signifies which option is the correct answer. (All graphs are presented in color in the application).

## Appendix 5



*Appendix 5 shows how the test appears to users on smartphones. Each question and its eight answer options occupy approximately a full screen making text easy to read. Clicking the icon at the end of the question plays an audio reading of the text for visually-impaired users.*

## References

- Alderson, J.C. (2005) *Diagnosing Foreign Language Proficiency*, London: Continuum.
- Blass, L. (2017) *TRIO Listening and Speaking 2*, Oxford: Oxford University Press.
- Harris, H.W. Jr., Miyake, S. (2017) Student Numbers in the SLA Conversation Classroom, *Hakuoh University Faculty of Education Journal*, 11(1), 231-244.
- Milton, J. (2009) *Measuring Second Language Vocabulary Acquisition*. Bristol: Multilingual Matters.
- Nation, I.S.P. (2012) *Learning Vocabulary in Another Language*, Cambridge: Cambridge University Press.
- Schmitt, N. (2010) *Researching Vocabulary - A Vocabulary Research Manual*, Basingstoke: Palgrave Macmillan.
- Schmitt, N. (2012) *Vocabulary in Language Learning*, New York: Cambridge University Press.
- Shin J, Guo Q and Gierl MJ. (2019) Multiple-Choice Item Distractor Development Using Topic Modeling Approaches. *Frontiers in Psychology*. 10: 825. doi: 10.3389/fpsyg.2019.00825