

USING OAS.WEB.ID TO CREATE ENGLISH VOCABULARY SIZE QUIZ

Yonathan Winardi¹, Hananto²

^{1,2} Universitas Pelita Harapan, Tangerang, Banten
yonathan.winardi@uph.edu¹, hananto.fip@uph.edu²

ABSTRACT

A systematic and continuous vocabulary assessment is required to monitor the progress of learners' learning and readiness to follow certain instructional programs. The purpose of this study is to report a tryout of constructing an online quiz using <http://oas.web.id/>. OAS is an ongoing R&D project to help teachers and/or educational researchers create an online quiz by converting multiple-choice questions from a spreadsheet program (i.e. MS Excel or Google Sheets) into a Google Forms quiz, Moodle, paper-based quiz, Kahoot, or any other quiz makers that have import facility. This paper focuses on describing the making and tryout of a vocabulary-size quiz into Google Forms quiz to find out whether the resulting quiz works. The result shows that OAS offered an easy and very quick way in creating a vocabulary-size quiz successfully by copying the already available vocabulary-size questions based on Nation and Beglar's Vocabulary Size Test. The researcher and the voluntary test students got the scores immediately after they had submitted the Google Forms. It can then be concluded that the OAS created the vocabulary quiz successfully without any serious technical problems.

Keywords: Google forms, Online vocabulary test, Online answer sheet (Oas)

ABSTRAK

Sebuah asesmen kosakata yang sistematis dan berkelanjutan diperlukan untuk memonitor kemajuan dan kesiapan pembelajar untuk mengikuti program-program pembelajaran. Tujuan dari penelitian ini adalah untuk melaporkan sebuah uji coba dari penyusunan sebuah kuis dalam jaringan menggunakan <http://oas.web.id/>. OAS adalah sebuah proyek penelitian dan pengembangan untuk menolong guru-guru dan/atau peneliti-peneliti pendidikan membuat sebuah kuis dalam jaringan dengan cara mengonversi pertanyaan-pertanyaan pilihan berganda dari sebuah program lembar kerja (misalnya *Microsoft Excel* atau *Google Sheets*) ke dalam kuis *Google Forms*, Moodle, lembar kuis cetak, *Kahoot*, atau program-program pembuat kuis lainnya yang memiliki fitur impor. Paper ini fokus pada penggambaran proses pembuatan dan uji coba sebuah kuis kosakata dengan *Google Forms* untuk mengetahui apakah kuis tersebut bisa digunakan. Hasilnya menunjukkan bahwa OAS menawarkan sebuah cara yang mudah dan sangat cepat dalam membuat sebuah kuis kosakata dengan menyalin pertanyaan-pertanyaan kosakata yang telah disediakan berdasarkan tes kosakata Nation and Beglar's. Peneliti dan mahasiswa/i yang berpartisipasi di uji coba, langsung mendapatkan hasil kuis setelah mereka mengumpulkan *Google Forms*. Kemudian dapat disimpulkan bahwa OAS sukses membuat kuis kosakata tanpa ada masalah-masalah teknis yang berarti.

Kata kunci: *Google forms*, Kuis kosakata dalam jaringan, *Online answer sheet* (OAS)

Introduction

The role of vocabulary in language teaching has been in and out of fashion and has been debated by many teachers and linguists. There have been numerous different approaches to language learning, each with a different perspective on vocabulary. At times, vocabulary has been given a prominent place in teaching methodologies, and at other

times more or less ignored. This section provides a brief historical review related to vocabulary learning up to the current state of the art.

The 1920s witnessed the beginnings of what has come to be called the Vocabulary Control Movement. One of the most significant types of research was frequency list studies to select the most useful words for language learning. The researchers aimed to help educators and teachers determine which words were likely to be used at certain grade levels. It was chiefly used as an objective criterion of the appropriateness of lexical items in schoolbooks and as a basis for the construction of achievement tests in vocabulary, reading, and spelling. It was also taken as a basis for word lists for foreigners learning English. The General Service List of English Words (West, 1953) is considered the best achievement in the Vocabulary Control Movement. The list consists of almost 2000 words and has played a major role in determining the lexical content of ESL/EFL course books and has still been widely used today.

After World War II, there was an increasing interest in the scientific study of language. The Audio-Lingual Method (ALM) was firmly grounded in linguistic and psychological theory at that time. The emergence of the ALM as the dominant teaching methodology had a direct and harmful effect on further developments in vocabulary teaching and research (Singleton, 2000). It can be said that the period from 1945 to 1970 was a dividing line for vocabulary as an aspect of language teaching in its own right. The arguments for teaching heavy doses of syntax went largely unchallenged.

By the 1970s, ALM had slowly been abandoned and since the late 1970s, there had been a revival of interest in vocabulary teaching. Representative samples of interest in vocabulary teaching and its development in the 1970s and 1980s could be found in several articles (e.g. Wilkins, 1972, Twaddell, 1973, Lord, 1974, Richards, 1976, Judd, 1978, Nation, 1982), and in books such as Carter and McCarthy (1988). Wilkins (1972), for example, writes: “without grammar, very little can be conveyed, without vocabulary, *nothing* can be conveyed” (p. 111).

Although vocabulary is no longer a victim of discrimination in SLA research or language teaching (Laufer, 1997), it is still largely ignored by Indonesian EFL teachers and/or researchers. Until now, not many Indonesian EFL teachers realize the vital role of vocabulary. Some studies have been conducted to investigate the vocabulary size of Indonesian students, for example, Quinn’s study (1968); Nurweni’s

study (1995), Kweldju's study (1997), Nurweni and Read's study (1999); Kweldju et al.'s study (2000). More recent vocabulary-size studies investigating the vocabulary size of Indonesian students were conducted by Kurniawan (2017), Sudarman and Chinokul (2018), and Siregar (2020).

Some studies show that Indonesian students' poor mastery of English was mostly because of their limited size of English vocabulary. The results of vocabulary-size studies conducted in Indonesia show that high-school leavers' vocabulary size has not reached the target specified in the national curriculum.

Vocabulary learning is a field of investigation that has seen an explosion of experimental research in the past few decades. There are many dimensions to vocabulary learning, as reflected in the various areas of research being done on the topic. The recent development of vocabulary learning studies can be easily read in papers reviewing a dimension of vocabulary learning. Ramos (2015), for example, provides a literature review of incidental vocabulary learning.

The use of educational technologies for vocabulary learning has received increasing attention from language learners, educators, and researchers. For example, Lin and Lin (2019) review the use of mobile-assisted ESL/EFL vocabulary learning, and Zou, Huang, and Xie (2021) review studies on digital game-based vocabulary learning.

Vocabulary size-test

The development of lexical knowledge is now regarded as central to learning a language, by both researchers and teachers. Vocabulary is an essential building block of language; therefore, it makes sense to be able to measure learners' knowledge of it (Read, 2000). If learners are not tested on vocabulary, they might conclude that vocabulary does not really matter.

Vocabulary knowledge is not an all-or-nothing phenomenon but involves degrees of knowledge. It should be seen as a continuum, or continua, consisting of several levels and dimensions of knowledge (Read, 1989; Schmitt, 1999). They cover spelling, pronunciation, grammatical form, relative frequency, collocation, and restrictions on the use of the word, as well as the distinction between receptive and productive knowledge Nation (1990).

There are several different types of vocabulary tests. This study focuses on one type that is called vocabulary “size” or “breadth” tests. The purpose of the tests is to measure how many words EFL learners know. The tests provide estimates of the learners’ abilities. Vocabulary-size tests seem to be valid indicators of language ability in a broad sense.

Although word knowledge involves more than just the link between form and meaning, vocabulary-size tests focus on the form-meaning link because word meaning is the central component of word knowledge (Laufer & Goldstein, 2004). The tests may cover many lexical items and are operationalized in discrete and context-independent test items. Compared to other vocabulary tests that are available at the moment, vocabulary-size tests have the following advantages according to Laufer and Goldstein (2004):

Tests of vocabulary size have been shown to predict success in reading, writing, and general language proficiency as well as academic achievement (Laufer 1997, Saville-Troike 1984) whereas other types of vocabulary tests yet have not. Therefore, size tests allow for more efficient placement and admission in language teaching programs than depth tests or fluency tests. Moreover, size tests can function as relatively simple and efficient research instruments providing us with the vocabulary size of the participants at the beginning of the treatment and showing the growth in vocabulary after the experimental intervention. (p. 401-402)

Read (2000) stated, although the vocabulary-size test seems superficial when compared to the vocabulary test that in-depth investigate a limited number of words, the vocabulary-size test is more

popular because it can provide a more representative picture of the overall state of the learner's vocabulary.

There have been some vocabulary-size tests available, for example, Vocabulary Levels Test (Krummel & Schmitt, 2017). The typical formats used for vocabulary size tests are multiple-choice (e.g., Nation & Beglar, 2007), word-definition matching (e.g., Beglar & Hunt, 1999, Nation, 1993), word completion (e.g., Laufer & Nation, 1999), and the checklist (e.g., Meara, 1992).

This study uses the data from the Vocabulary Size Test made by Nation and Beglar (2007). The test was developed to provide a reliable, accurate, and comprehensive measure of a learner's vocabulary size from the 1st 1000 to the 14th 1000-word families of English. The test consists of 140 items (ten from each 1000-word level) to see how close learners are to having enough vocabulary to perform certain tasks such as reading a novel, reading newspapers, watching movies, and listening to conversations. The goal of around 8,000-word families is an important one for learners who wish to deal with a range of simplified spoken and written texts. It is thus helpful to know how close learners are to this critical goal.

Below are three sample items from the 1st, 4th, and 8th 1000-word levels from Nation and Beglar's (2007) Vocabulary Size Test. It can be seen that the higher the word level, the more difficult the item:

1. SEE: They saw it.
 - a. cut
 - b. waited for
 - c. looked at
 - d. started

4. COMPOUND: They made a new compound.
 - a. agreement
 - b. thing made of two or more parts
 - c. group of people forming a business
 - d. guess based on past experience

8. ERRATIC: He was erratic.

- a. without fault
- b. very bad
- c. very polite
- d. unsteady

The vocabulary size tests discussed above are originally paper-based tests that were difficult to be administered during the Covid-19 pandemic because all teaching-learning activities are conducted online. Even if it is possible to administer paper-based tests, it is not convenient or very time-consuming to grade the tests, and difficult to do item analysis. Some of the vocabulary size tests have been transformed into online tests that are freely available to the public. EFL students may take the test individually, but it is not practical for teachers to ask their students to take the online tests because the tests usually do provide the score of each test taker. They do not provide descriptive statistics for a group of students from a class. Therefore, this study is conducted to help teachers make a vocabulary size test more easily using <http://oas.web.id/> (Hananto, 2021).

Research method

The research method employed in this research is the same as the previously completed five-stage R&D model done by the researcher in 2021 that went through (1) Preliminary Research Phase, (2) Model Development Phase, (3) Model Validation Phase, and (4) Effectiveness Test Phase, and to (5) Dissemination Phase. At the moment, another preliminary test is done for a vocabulary study test with the hope that this can be used as longitudinal research at a private Christian teachers college. Eight college students from English language teaching who are in their 5th semester participated in this research as they piloted the vocabulary size test on June 27, 2022. The researcher gave them the link and they did the 8th 1000-word level. The test had 10 vocabulary MCQs with five options.

Basically, there are 9 steps for using oas.web.id to create a multiple-choice question (MCQ) vocabulary test and those steps can be categorized into three stages. The first stage is the test items preparation in which for instance an English teacher using this app in the future, prepares 20 numbers of MCQ and its answer keys or selects 20 numbers provided by the researcher inside the spreadsheet. If the English teacher chooses to use the provided ones, it is recommended use levels 7 and 8 provided in the spreadsheet (See figure 1).

	A	B	C	D	E	F	G	H
62	1. OLIVE: We bought olives.	oily fruit	scented pink or red flowers	men's clothes for swimming	tools for digging up weeds		A	Seventh 1000
63	2. QUILT: They made a quilt.	statement about	firm agreement	thick warm cover for a bed	feather pen		C	Seventh 1000
64	3. STEALTH: They did it by stealth.	spending a large amount of money	hurting someone so much	moving secretly without being noticed	taking no notice of problems they face		C	Seventh 1000
65	4. SHUDDER: The boy shuddered.	spoke with a low almost fell	shook	called out loudly			C	Seventh 1000
66	5. BRISTLE: The bristles are too hard.	questions	short stiff hairs	folding beds	bottoms of the shoes		B	Seventh 1000
67	6. BLOC: They have joined this bloc.	musical group	band of thieves	small group of soldiers	group of countries sharing a purpose		D	Seventh 1000
68	7. DEMOGRAPHY: This book is about demography.	the study of patterns	the study of the use of the study of the movement	the study of population			D	Seventh 1000
69	8. GIMMICK: That's a good gimmick.	thing for standing small thing with pocket	attention-getting action	clever plan or trick			C	Seventh 1000
70	9. AZALEA: This azalea is very pretty.	small tree with many light material made from long piece of material with sea shell shaped like a fan					A	Seventh 1000
71	10. YOGHURT: This yoghurt is disgusting.	grey mud found in unhealthy, open sore	thick, soured milk, often large purple fruit with soft flesh				C	Seventh 1000
72	1. ERRATIC: He was erratic.	without fault	very bad	very polite	unsteady		D	Eighth 1000
73	2. PALETTE: He lost his palette.	basket for carrying things to eat food	young female companion	artist's board for mixing paints			D	Eighth 1000
74	3. NULL: His influence was null.	had good results	was unhelpful	had no effect	was long-lasting		C	Eighth 1000
75	4. KINDERGARTEN: This is a good kindergarten.	activity that allow place of learning for children	strong, deep bag	carriage where you may borrow books			B	Eighth 1000
76	5. ECLIPSE: There was an eclipse.	a strong wind	a loud noise of something	The killing of a large number	The sun hidden by a planet		D	Eighth 1000
77	6. MARROW: This is the marrow.	symbol that bring	Soft centre of a bone	control for guiding a plane	increase in salary		B	Eighth 1000
78	7. LOCUST: There were hundreds of locusts.	insects with wings	unpaid helpers	people who do not eat	brightly coloured wild flowers		A	Eighth 1000
79	8. AUTHENTIC: It is authentic.	real	very noisy	Old	Like a desert		A	Eighth 1000
80	9. CABARET: We saw the cabaret.	painting covering	song and dance performance	small crawling insect	person who is half fish, half woman		B	Eighth 1000
81	10. MUMBLE: He started to mumble.	think deeply	shake uncontrollably	stay further behind the	speaking in an unclear way		D	Eighth 1000
82	1. HAMMUR: Does it have a hammur?	stamp to show of stamp to show the way	mark to show it is approved	chain to prevent someone			B	Ninth 1000

Figure 1. The 7th and 8th Level

Starting using oas.web.id

As any English teacher in the future plans to use the vocabulary test using oas.web.id, he/she may visit oas.web.id and will be redirected to onlineanswersheets.glideapp.io. The user/teacher then needs to click on "Google Forms Quiz +" and then click on "Input Question Link" to be in the spreadsheet provided by the researchers. In that spreadsheet entitled 'MASTER DATA', they need to go to sheet 'VST' to find the vocabulary questions, options, and answer keys (see previous Figure 1). Then they need to copy the A62-G81 area and go to sheet 'DATA' to paste it in B1 space by clicking Ctrl-V.

The second stage is sharing and conducting the test which begins with the English teacher clicking 'here' in row 2 on the same spreadsheet

page, that is the 'MASTER DATA' sheet. He/she will receive an email containing four links and then need to click on link no.2 as follows

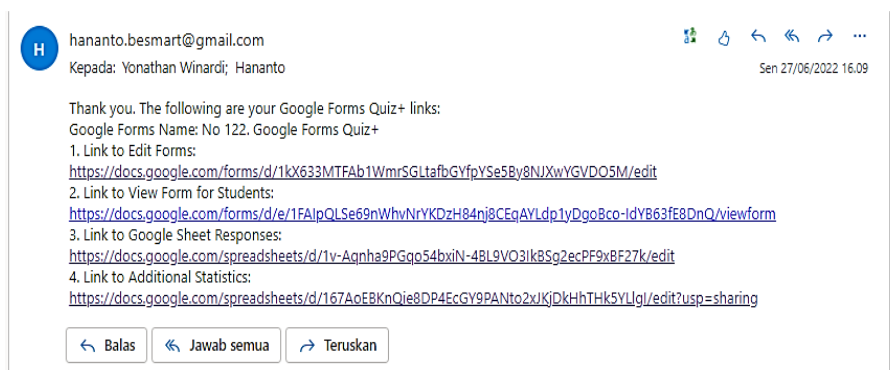


Figure 2. Initial Step to Share the Vocabulary Test

Number 2 of the above links can then be shared with test-takers, the students in the English class. The test takers then use link no.1 to edit the test whenever necessary and to complete the test instruction such as how long the test duration is and whether they can or can not open dictionary nor ask a friend.

The third stage is the analysis stage which mainly uses link no.4 (See figure 2 above). After all students have done the test, then the researcher can directly check and analyze the test results, starting from some basic information such as average, median, and mode. Average is a score of all numbers in the data set divided by the number of values in the set. The Median is the middle score when a data set is ordered from least to greatest and mode one score that occurs most often in a data set. There is also the score frequency distribution shown on the left side. Below are some data that can be displayed, provided by the oas.web.id in the spreadsheet entitled '--OUTPUT MASTER Form 1' and inside sheet 'Statistics'

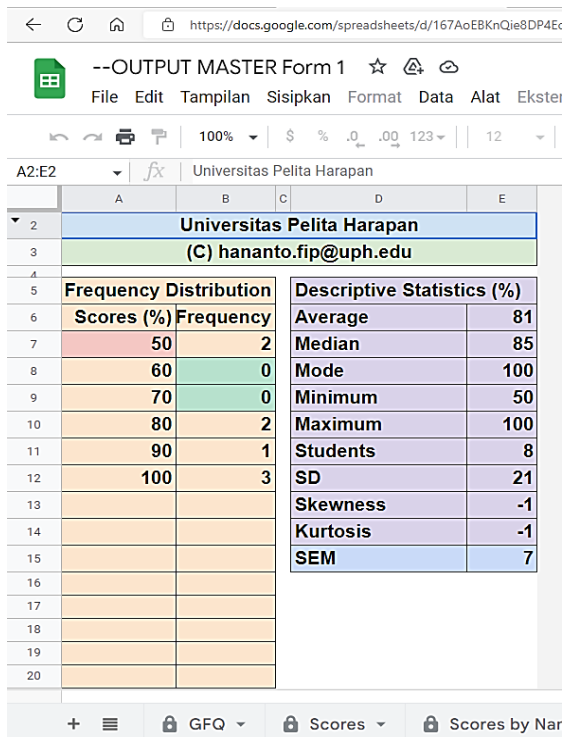


Figure 3. Frequency Distribution and Basic Statistics Info

Figure 4 below is the histogram of the test-takers achievement that is provided inside the sheet 'Histogram' and figure 5 shows the item analysis. The pink color, that appears in some parts in figure 5, shows that the distractor is weak or ineffective and the level of difficulty of that question is too easy so it needs to be revised. This feature surely can help the English teacher to identify poor questions and distractors so improvement can be made fast. The practice of knowing item difficulty and distractor analysis in the past required extensive calculation, but now using oas.web.id it can be done just in time

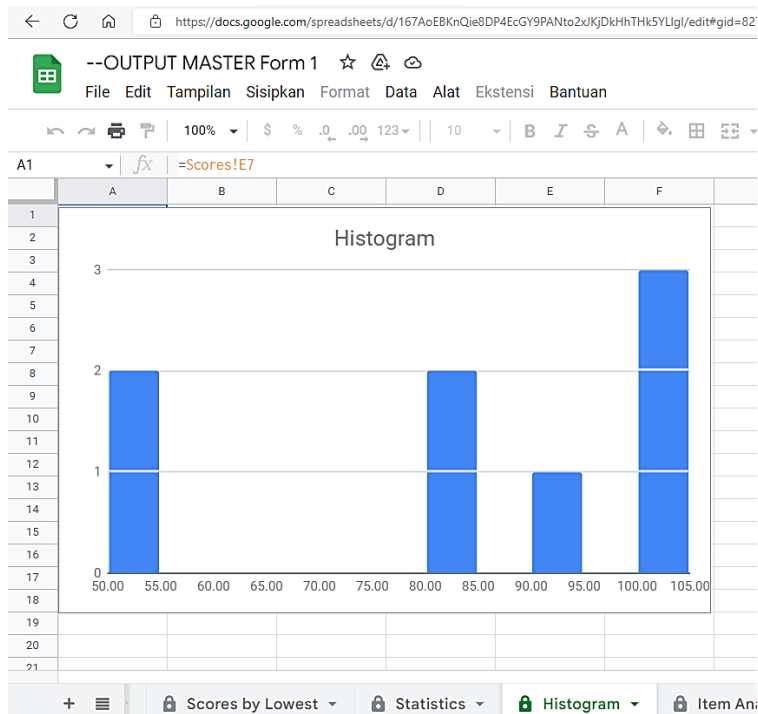


Figure 4. The Histogram

Items	Distractor Analysis					SUM	Item Difficulty	Item Discrimination (Corrected Item - Total Correlation)	Cronbach's Alpha	Number of Items
	A	B	C	D	E					
1	0	4	0	4	0	8.00	0.50	0.53	0.77	10
2	0	0	0	8	0	8.00	1.00			
3	1	1	6	0	0	8.00	0.75	0.87		
4	0	8	0	0	0	8.00	1.00			
5	0	0	0	8	0	8.00	1.00			
6	1	4	3	0	0	8.00	0.50	0.71		
7	6	0	0	2	0	8.00	0.75	0.28		
8	7	0	1	0	0	8.00	0.88	0.48		
9	0	6	1	1	0	8.00	0.75	0.87		
10	0	0	0	8	0	8.00	1.00			

Figure 5. The Item Analysis

Trying out the vocabulary test

In the tryout done by the researcher with 8 female pre-service teachers in the faculty of education, almost all participants vividly stated that there was no issue or obstacle when they tried the vocabulary test using their own handphone. They all are taking English language education major. Below is the table showing their results and opinion

Table 1. Tryout Results

Score	Coding	Opinion
10 / 10	S1	"There was no problem"
5 / 10	S2	"I didn't face any problem, but I just never heard/read some of those vocabularies"
10 / 10	S3	"I didn't face any problem"
8 / 10	S4	"I didn't face any problem related to the test, Sir"
9 / 10	S5	-
10 / 10	S6	"I didn't face any problem"
8 / 10	S7	-
5 / 10	S8	"I didn't face any problem, but i just never heard/read some of those vocabularies"

In addition to that success in the tryout, the tryout results are normally distributed which can signal that the vocabulary test is valid and good. The normal distribution shows the test is not too easy nor too difficult.

Conclusion

Using oas.web.id to create vocabulary size test is simple, useful, and has been piloted with no technical issues. It can provide any English teacher who plans to use it in the future with quick results and with further analysis such as frequency distribution of the scores and its

histogram as well as item analysis which covers item discrimination, item difficulty, and distractor analysis. There are three stages in using oas.web.id: preparation, testing, and analysis, that will lead an English teacher to conduct formative and even summative vocabulary tests to monitor and improve his/her students' performance. Although the maximum number of questions oas.web.id can cater is 50, it is considered sufficient and efficient to be done. It is recommended to conduct longitudinal research on more pre-service teachers to find out their prior vocabulary size, progress, and the relationship between their vocabulary size with their academic English performance during their college.

REFERENCES

- Beglar, D., & Hunt, A. (1999). Revising and validating the 2000 level and university word level vocabulary test. *Language Testing* 16(2), 131-162. <https://doi.org/10.1177/026553229901600202>
- Carter, R., & McCarthy, M. (1988). *Vocabulary and Language Teaching*. London, UK: Longman.
- Hananto. (2021). The easiest way to use Google Forms to assess students' learning achievement. *The 12th Annual International Symposium of Foreign Language Learning (AISOFOLL) Proceeding*, 54–64. Retrieved from <http://aisofoll.qiteplanguage.org/proceeding-12thaisofoll/>
- Judd, E. L. (1978). Vocabulary teaching and TESOL: A need for reevaluation of existing assumptions. *TESOL Quarterly*, 12(1), 71–76. <https://doi.org/10.2307/3585792>
- Kremmel, B., & Schmitt, N. (2017). Vocabulary levels test. *The TESOL Encyclopedia of English Language Teaching*, 1–7. <https://doi.org/10.1002/9781118784235.eelt0499>
- Kurniawan, I. (2017). Assessing English students' vocabulary size of Lampung State Islamic University. *Humaniora*, 8(4), 381. <https://doi.org/10.21512/humaniora.v8i4.3909>

Kweldju, S. (1997). *English Department Students' Vocabulary Size and the Development of a Model of Extensive Reading with Individualized Vocabulary Learning*. Singapore: SEAMO-Regional Language Centre.

Laufer, B. (1997). What's in a word that makes it hard or easy: some intralexical factors that affect the learning of words. In N. Schmitt & M. McCarthy, *Vocabulary: description, acquisition, and pedagogy* (pp. 140-155). Cambridge, UK: Cambridge University Press.

Laufer, B. & Z. Goldstein (2004). *Testing vocabulary knowledge: Size, Strength, and Computer Adaptiveness*. *Language Learning* 53(3), 399-436. <https://doi.org/10.1111/j.0023-8333.2004.00260.x>

Laufer, B. & P. Nation (1999). A vocabulary-size test of controlled productive ability. *Language Testing* 16(1), 33-51. <https://doi.org/10.1177/026553229901600103>

Lin, Jen-Jiun; & Lin, Huifen (2019). Mobile-assisted ESL/EFL vocabulary learning: a systematic review and meta-analysis. *Computer Assisted Language Learning*. 32 (8). <https://doi.org/10.1080/09588221.2018.1541359>

Lord, R. (1974). Learning Vocabulary. *IRAL* 12, 239-247.

Meara, P. (1992). *EFL Vocabulary Tests*. Swansea, Centre for Applied Language Studies, University of Wales.

Nation, I. S. P. (1982). Beginning to learn foreign vocabulary: A Review of the Research. *RELC Journals* 13, 14-36. <https://doi.org/10.1177/003368828201300102>

Nation, I. S. P. (1993). Measuring readiness for simplified material: A Test of the First 1,000 Words of English. In M. L. Tickoo, *Simplification: Theory and Application: RELC Anthology Series* (pp.193-203). <https://www.wgtn.ac.nz/lals/resources/paul-nations-resources/paul-nations-publications/publications/documents/1993-1000-level-test.pdf>

Nation, I. S. P. (1990). *Teaching and Learning Vocabulary*. New

York, USA: Heinle and Heinle.

- Nation, P., & Beglar, D. (2007). A vocabulary size test. *The Language Teacher*. 31 (7). Retrieved on June 23, 2022, from https://www.lex tutor.ca/tests/nation_beglar_size_2007.pdf
- Nurweni, A. (1995). *The English vocabulary knowledge of first-year students at an Indonesian University*. Unpublished MA thesis., Victoria University of Wellington, New Zealand.
- Nurweni, A. & J. Read (1999). The English vocabulary knowledge of Indonesian University Students. *English for Specific Purposes* 18, 161-175. [https://doi.org/10.1016/s0889-4906\(98\)00005-2](https://doi.org/10.1016/s0889-4906(98)00005-2)
- Quinn, G. (1968). *The English vocabulary of some Indonesian University Entrants: A Report on a Survey Conducted at the Christian University and Teachers College of Satya Wacana*. Salatiga, Indonesia: IKIP Kristen Satya Wacana.
- Ramos, R. F. D. (2015). Incidental vocabulary learning in second language acquisition: A literature review. *PROFILE Issues in Teachers' Professional Development*, 17(1), 157-166. <https://doi.org/10.15446/profile.v17n1.43957>
- Read, J. (1988). Measuring the vocabulary knowledge of Second Language Learners. *RELC Journals* 19(2), 12-25. <https://doi.org/10.1177/003368828801900202>
- Read, J. (2000). *Assessing Vocabulary*. Cambridge, UK: Cambridge University Press.
- Richards, J. (1976). The role of vocabulary teaching. *TESOL Quarterly* 10 (1): 77-89. <https://doi.org/10.2307/3585941>
- Schmitt, N. (1999). The relationship between TOEFL vocabulary items and meaning, association, collocation, and word-class knowledge. *Language Testing* 16, 189-216. <https://doi.org/10.1177/026553229901600204>

- Singleton, D. (2000). *Language and the lexicon: An introduction*. New York, USA: Oxford University Press.
- Siregar, F. L. (2020). English students' vocabulary Size and level at a Private University in West Java, Indonesia. *Humaniora*, 11(2), 77–83. <https://doi.org/10.21512/humaniora.v11i2.6388>
- Sudarman, S., & Chinokul, S. (2018). The English vocabulary size and level of English Department students at Kutai Kartanegara University *ETERNAL (English, Teaching, Learning and Research Journal)*, 4(1), 1–15. <https://doi.org/10.24252/eternal.v4i1.2018.A1>
- Twaddell, F. (1973). Vocabulary expansion in the ESOL classroom. *TESOL Quarterly* 7, 61 - 78. <https://doi.org/10.2307/3585510>
- West, M. (1953). *A General Service List of English Words*. London, UK: Longman.
- Wilkins, D. A. (1972). *Linguistics in Language Teaching*. London, UK: Arnold.
- Zou, Di; Yan Huang; Haoran, Xie (2021) Digital game-based vocabulary learning: where are we and where are we going? *Computer Assisted Language Learning*. 34 (5-6). <https://doi.org/10.1080/09588221.2019.1640745>