



## The Effects of Watching an Academic Lecture on Incidental Vocabulary Learning

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### ABSTRACT

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Of the many academic materials, lectures can be a great source for improving L2 learners' vocabulary because they are likely to repeat topic-specific words in various contexts. However, whether and how such repeated exposure to topic-related words through lectures translates into L2 vocabulary learning remains largely unexplored. In addition, few studies have explored how learner-related factors such as prior vocabulary knowledge influence learning gains. This study investigates how watching an academic lecture affects L2 incidental vocabulary learning. It also analyzes the relationship between L2 learners' vocabulary size and learning gains. Ninety undergraduate English-as-a foreign language (EFL) students were assigned to either the treatment group ( $n = 44$ ), which watched an academic lecture containing ten target words, or the control group ( $n = 46$ ), which only took a pretest and posttest of target words. The findings revealed that watching a lecture resulted in significant vocabulary gains. In addition, vocabulary gain appeared to be influenced by the participants' vocabulary size.

### KEYWORDS

incidental vocabulary learning, second language learning, English for academic purposes

## 1. Introduction

In general, there is consensus regarding the importance of vocabulary knowledge in achieving second language (L2) proficiency. Acquiring a large vocabulary is one of the most fundamental steps to improving all L2 language skills, including listening, reading, speaking, and writing. L2 learners need to know between 3,000 and 9,000 word families to achieve adequate comprehension of various types of English written or spoken discourse (Nation 2006, Webb and Rogers 2009). Due to instructional time limits, teaching all of these words explicitly within the L2 classroom is nearly impossible. Recognizing the insufficiency of classroom time to master such a large number of words, L2 vocabulary researchers have recommended incidental vocabulary learning to promote vocabulary knowledge (Webb and Nation 2017).

In the literature, incidental vocabulary learning is defined as “learning without an intent to learn, or as the learning of one thing, for example, vocabulary, when the student’s primary objective is to do something else” (Laufer and Hulstijn 2001, p. 10). In other words, incidental vocabulary learning entails acquiring new vocabulary while engaging in a meaning-focused activity, such as reading and listening. Incidental vocabulary learning occurs when L2 learners read graded readers (e.g., Horst, Cobb and Meara 1998, Webb and Chang 2015), listen to songs (Pavia, Webb and Faez 2019) or audio books (Chang 2019), and view television programs (Rodgers and Webb 2020). Previous studies presented substantial empirical evidence for L2 incidental vocabulary learning, but so far, researchers have mainly explored the issue using non-academic materials. Although academic input has been largely ignored as an input source for incidental vocabulary learning, it can be pivotal for L2 learners, especially those studying English for academic purposes (EAP). Corpus-based studies (e.g., Sutarsyah, Nation and Kennedy 1994) have found that academic input sources, such as textbooks and lectures, contain many topic-specific words essential to comprehending academic content. L2 learners in EAP settings must learn these topic-specific words to achieve academic success in their fields. Nation (2001) pointed out that topic-specific or topic-related words are often difficult to learn and that these words should be mastered through study of the academic discipline, instead of through context-independent approaches such as repetition or translation. Of the many types of academic materials, lectures can be great sources for improving L2 learners’ topic-specific vocabulary because these sources are likely to repeat topic-specific words in various contexts. However, whether and how such repeated exposure to topic-related words through lectures translates into L2 vocabulary learning remains largely unexplored. In addition, few studies on incidental vocabulary learning have explored how learner-related factors such as prior vocabulary knowledge influence learning gains.

Therefore, the present study is aimed at investigating the effects of watching an academic lecture on L2 incidental vocabulary learning. In addition, the study examines the influence of learners’ L2 vocabulary size on incidental vocabulary gains.

## 2. Literature Review

### 2.1 Incidental Vocabulary Learning through Watching Audio-visual input

So far, researchers have mainly investigated incidental vocabulary learning using written input (e.g., Horst et al. 1998, Pellicer Sánchez and Schmitt 2010, Webb and Chang 2015). However, there is growing interest in audiovisual input such as films and videos as a potential source for incidental vocabulary learning. Rodgers (2016) claimed that videos and television series are excellent vocabulary learning materials because they are interesting, familiar to learners, and comprehensible due to contextual cues. Words can be acquired incidentally by watching short video clips (Puimège and Peters 2019), television series (Rogers and Webb 2020), and movies (Ashcroft, Garner and Hadingham 2018).

Although such audiovisual input is comparable to written input in terms of learners' potential for learning new words (Feng and Webb 2020), many prior studies used non-academic materials, and few researchers have investigated incidental vocabulary learning through academic input such as lectures. Smidt and Hegelheimer's (2004) study was one of the few to use academic lectures to explore L2 learners' vocabulary learning. In their study, 24 adult learners of English as a second language (ESL) enrolled in a university language class watched a 15-minute online academic lecture on horticulture. In the video lecture, the speaker was visible and used overhead transparencies with keywords and picture slides to illustrate important concepts. An online dictionary appeared at the bottom frame of the split-screen so that the participants could use it to look up unfamiliar words while watching the lecture. To measure vocabulary gains, Smidt and Hegelheimer had the participants take a pretest, a posttest, and a delayed posttest designed to measure knowledge of 20 target words selected from the lecture. Their results indicated a significant increase in participants' knowledge of the target vocabulary on the posttest, and these gains were maintained on the delayed posttest administered two weeks later. The researchers concluded that watching an online video of an academic lecture resulted in tangible vocabulary learning. Nonetheless, the study measured the participants' vocabulary gains using partial dictation test tasks in which the participants filled in blanks with target words when a text was read. Thus, it is unclear whether the gains reported in the study can be interpreted entirely as gains in vocabulary knowledge, given that dictation tasks mainly measure listening proficiency, not vocabulary knowledge. Because recognizing a form of a word and its meaning is an initial stage for vocabulary knowledge development (Webb and Nation 2017), it seems necessary to check learners' understanding of the meaning of target words when investigating incidental vocabulary learning.

To assess learners' vocabulary learning gains more adequately, Vidal (2003) adopted a different vocabulary measure: the Vocabulary Knowledge Scale (VKS) (Paribakht and Wesche 1997). This self-report assessment enables learners to indicate how well they know target words. The study also followed a pretest and posttest design. In addition, similar to Smidt and Hegelheimer's (2004) study, Vidal (2003) used 15-min long academic lectures. Specifically, 122 undergraduate freshmen in Spain watched three 15-min lectures on tourism. The participants then took a posttest measuring retention of

38 target words from the lectures. There was a significant improvement in vocabulary knowledge from the pretest to the posttest, indicating that watching academic lectures might be a source of vocabulary learning. In particular, the participants made great gains in terms of topic-related words, not general academic words included in the University Word List (Xue and Nation 1984). These findings indicate that academic lectures can be effective tools for helping learners acquire topic-related words in a particular specialized subject area.

To further investigate the value of academic lectures as a source of vocabulary learning, Vidal (2011) conducted a follow-up study in which she compared vocabulary learning through academic listening and academic reading. In total, 224 first-year undergraduate students in Spain (1) read three academic texts on tourism, (2) watched corresponding lectures, or (3) received no input. The lectures were the same ones used in Vidal's (2003) study. Unlike the control group, the reading and listening groups achieved significant gains in vocabulary knowledge. However, participants experienced smaller learning gains from academic listening than from academic reading. The results of Vidal's (2003, 2011) studies show that L2 learners can learn new words while listening to academic lectures. However, it is worth noting that the lectures used in the studies were not authentic lectures recorded in a real class, but modified ones created for the studies. Although they fit the goal of the studies, it remains unclear how much incidental vocabulary learning could take place based on actual academic lectures.

Yang and Sun's (2013) study of 65 college students' incidental vocabulary learning through lecture presentations also exhibited significant vocabulary gains. The three lectures used for the study dealt with three subject areas (i.e., psychology, music, and physics), and the duration of each lecture ranged from 20 to 36 minutes. The study confirmed that L2 learners could gain vocabulary knowledge by merely watching actual academic lectures. However, one methodological shortcoming of this study was its lack of a control group. Thus, it is not entirely clear whether the gains reported in the study resulted exclusively from watching the lectures.

## **2.2 Learners' Vocabulary Size**

Learners' existing vocabulary size, an estimate of the number of words for which L2 learners have some knowledge of meaning is a learner-related variable that has seldom investigated in L2 vocabulary research. Vocabulary size is often measured with frequency-based vocabulary tests (e.g., <https://www.lexutor.ca/tests/>), which include a sample of words for each frequency band (e.g., the most frequent 1,000 words, the second most frequent 1,000 words so on). Although few empirical studies have explored the relationship between L2 learners' vocabulary size and their vocabulary gains from incidental exposure, several studies reported that those participants with larger vocabularies exhibited more learning gains. For instance, Webb and Chang (2015) reported a positive relationship between L2 vocabulary size and incidental vocabulary gains through reading while listening. Similarly, Peters and Webb (2018) found that prior vocabulary knowledge positively affected incidental vocabulary learning from viewing L2 television at the level of meaning recall and meaning recognition. Nonetheless, in his

study on watching television series, Rogers (2013) found no meaningful connection between incidental vocabulary gains and L2 vocabulary size. These inconsistent findings warrant further investigation to elucidate how prior vocabulary knowledge contributes to incidental vocabulary learning.

### 2.3 The Present Study

The purpose of this study is to explore the effects of watching an academic lecture on incidental vocabulary learning. Previous researchers have mainly used non-academic materials to investigate the potential of audiovisual input. However, it is also important to examine whether incidental vocabulary learning occurs in academic materials because such viewing conditions would better inform L2 learners in academic settings. In addition, it remains unclear whether there is a relationship between L2 learners' prior vocabulary knowledge and vocabulary gains from incidental exposure to words included in an academic lecture. Given the conflicting findings on the role of vocabulary knowledge in incidental vocabulary acquisition, more research on the issue seems necessary. The following research questions were addressed:

- (1) To what extent does watching an academic lecture result in incidental vocabulary learning?
- (2) To what extent is incidental vocabulary learning from an academic lecture influenced by L2 learners' vocabulary size?

## 3. Methods

### 3.1 Participants

The participants were 90 undergraduate EFL students (71 males, 19 females) recruited from two sections of an academic English course at a university in South Korea. The class met twice a week for 100 minutes. Most participants ( $n = 72$ ) were first-year students, and the remainder were second-year students ( $n = 18$ ). Their ages ranged from 18 to 20 years, and all majored in science or engineering fields, including computer science ( $n = 15$ ), electrical engineering ( $n = 14$ ), structural engineering ( $n = 8$ ), material science and engineering ( $n = 30$ ) and mechanical engineering ( $n = 23$ ). The course's two sections were randomly assigned to either the treatment group, which watched an academic lecture ( $n = 44$ ), or the control group ( $n = 46$ ), which only took the pretest and posttest. All participants took the Vocabulary Size Test (Nation & Beglar, 2007), and the two groups were similar in terms of vocabulary size ( $t = 0.99$ ,  $df = 88$ ,  $p > .05$ ). The participants were considered high intermediate to advanced L2 learners of English based on a TOEIC equivalent test to assess their English proficiency. The test was administered at the beginning of the academic year, and all of them had achieved a score of at least 750 out of 990.

### 3.2 Material

The audiovisual input used for this study was an undergraduate-level online lecture on physics given by the Department of Physics and Astronomy at the University of California, Irvine. It lasted approximately 50 minutes and included 7,637 running words. It was a live lecture recording whose layout consisted of instructor images together with slides (Figure 1). Specifically, it was the first lecture of a 15-week course titled Introduction to Cosmology. It dealt with universal expansion, the size and age of the universe, and how the universe began. The lecture was pilot-tested with a different group of students ( $n = 12$ ) taking the same course. A questionnaire was distributed to determine whether the lecture was appropriate in terms of the level of difficulty and relevance. The results of the questionnaire confirmed that the audiovisual material was suitable for the target participants. In addition, vocabulary terms used in the lecture were analyzed with Cobb's VocabProfile (<http://lxtutor.ca/vp/>), and the most frequent 3,000 words accounted for 95 % of the words. In addition, the lecture's appropriateness was confirmed by the results of a comprehension test taken immediately after the participants watched the lecture. The participants got more than seven of the ten comprehension items correctly ( $M = 7.41$ ,  $SD = 2.11$ ).

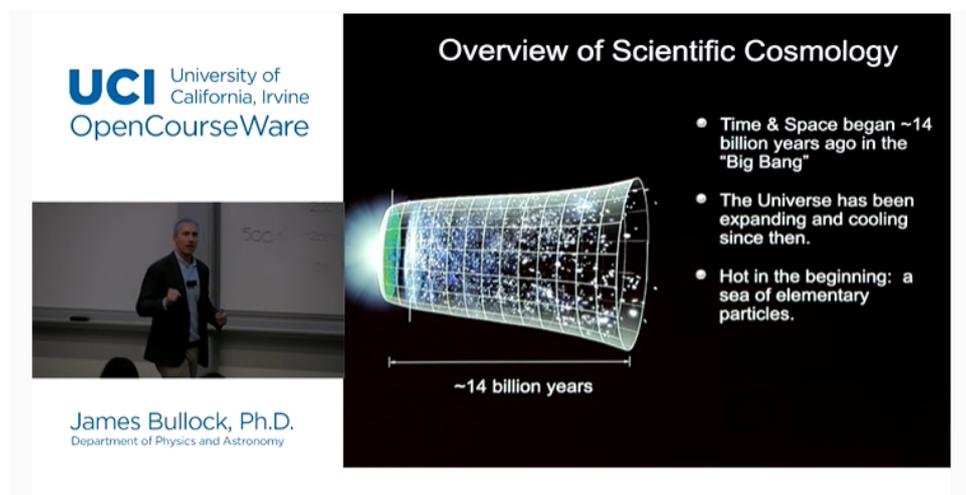


Fig 1. The Layout of the Video Lecture

### 3.3 Selection of Target Words

A group of words that were potentially unknown to the participants was sampled from the lecture. These words were then pilot-tested with students resembling the study's participants. A set of ten words was finalized. Based on Nation's (2001) categorization of words in academic reading materials, the target words selected for this study were classified as technical words and low-frequency words. Technical words are those specific to a certain field, topic, or discipline, whereas low-frequency words are those not commonly used in everyday English. In this study, the frequency count of target words

was checked against Nation's (2012) British National Corpus (BNC) and the Corpus of Contemporary American English (COCA) word lists. There were six technical words, and four low-frequency words, all of which are shown in Table 1.

**Table 1. Target Words**

Target word	Type of word	Frequency of occurrence (frequency level based on BNC/COCA)
cosmology	technical	13 (7K)
proton	technical	5 (7K)
neuron	technical	2 (17K)
electron	technical	2 (4K)
constellation	technical	7 (7K)
Jupiter	technical	9 (22K)
deceptive	low frequency	2 (7K)
sliver	low frequency	2 (8K)
trillion	low frequency	3 (7K)
smudge	low frequency	2 (8K)

### 3.4 Measures

#### 3.4.1 Target vocabulary test

To assess target vocabulary knowledge, a meaning recall test was administered. The test required participants to provide the meaning of each target word in Korean. To reduce the likelihood of a testing effect, the target words were presented on the pretest and posttest in the same format but in different orders. In addition, both tests included ten distracters that were not included in the lecture.

#### 3.4.2 Vocabulary size test

The participants' vocabulary knowledge was assessed using the Vocabulary Size Test (Nation and Beglar 2007), a meaning recognition test used to estimate L2 learners' word knowledge. The test was chosen because it was designed to estimate up to a maximum of 14,000 word families. The test included 140 multiple-choice questions, with ten words from each 1,000-word frequency band. The frequency list was based on the BNC. Each vocabulary item was presented in a sentence and followed by five options, including four options in Korean and "I don't know." The online format of the test is available at the following link: [https://vuw.qualtrics.com/jfe/form/SV\\_6Wrb5aUvXjIAs6h?Q\\_JFE=qdg](https://vuw.qualtrics.com/jfe/form/SV_6Wrb5aUvXjIAs6h?Q_JFE=qdg). The participants were asked to take the test individually at a computer lab. After the test, a total score was reported automatically on the computer screen. The participants were asked to take a screenshot of the page and send it to the researcher by e-mail.

### 3.4.3 Comprehension test

To measure the participants' understanding, a comprehension test was administered immediately after they finished viewing a video lecture. It had ten questions dealing with general comprehension and detailed facts. In addition, it included two true/false items. The remaining items were presented in a multiple-choice format with three or four options. The comprehension test was written in the participants' L1 (Korean) to reduce their anxiety and to better measure their comprehension without the interference of the participants' L2 reading skills (Rodgers 2013).

### 3.5 Procedure

At the beginning of the study, the participants took the Vocabulary Size Test. The test lasted approximately 60 minutes. In the following week, they took a pretest to assess their knowledge of the target words for 20 minutes. Two weeks after the pretest, the treatment group watched an authentic 50-minute video lecture. Before watching the lecture, the participants were told that they would take a comprehension test. They were encouraged to take notes while watching the lecture. The notes were collected immediately after the lecture ended. Then, the participants took a comprehension test and a vocabulary posttest. The control group completed only the vocabulary pretest and posttest. To be more specific, the control group did not watch the video lecture but instead received their regular instruction, which mainly focused on improving their academic reading and writing skills and none of the activities.

### 3.6 Scoring and Analysis

The comprehension test was scored dichotomously. A correct answer received one point, whereas an incorrect answer received zero points. As for the target vocabulary test, a 3-point rating scale was used (i.e., 0, 0.5, or 1). A partial point (0.5) was awarded when participants gave a response such as a synonym, an explanation, or a paraphrase, or anything that suggests a certain degree of knowledge of its meaning.

The data were analyzed using IBM SPSS statistics software version 27.0. To answer the first research question related to vocabulary gains resulting from watching a lecture, an independent-samples *t*-test was performed, with target vocabulary gains as the dependent variable and the group (treatment vs. control) as the independent variable. To answer the second research question, Pearson correlations were first computed to determine the relationship between the participants' vocabulary sizes and learning gains. Each participant's learning gains were calculated by subtracting the pretest score from the posttest score. In addition, a linear regression analysis was performed with vocabulary size as the predictor variable and learning gains as the dependent variables.

#### 4. Results

Table 2 shows the results of the target vocabulary test at both testing times (pretest and posttest). As the table shows, the mean pretest scores were low for both groups, indicating that the participants had little prior knowledge of the target words. In addition, the mean pretest scores did not differ between the experimental ( $M = 1.14$ ,  $SD = 1.09$ ) and control groups ( $M = 1.11$ ,  $SD = 1.02$ ). An independent-samples  $t$ -test was conducted to ensure the comparability of target vocabulary knowledge between the two groups prior to the lecture. The test findings confirmed a non-significant difference in target vocabulary knowledge between the two groups ( $t = 0.13$ ,  $df = 88$ ,  $p > .05$ ). The average scores of both the experimental and control groups increased from the pretest to the posttest. However, the experimental group scored significantly higher on the posttest than the control group did ( $t = 12.69$ ,  $df = 88$ ,  $p < .05$ ), showing that vocabulary gains could be attributed to viewing a lecture.

**Table 2. Descriptive Statistics of the Target Vocabulary Test Scores**

Group	Pretest		Posttest	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Experimental ( $n = 44$ )	1.14	1.09	4.64	1.16
Control ( $n = 46$ )	1.11	1.02	1.85	0.91

*Note.*  $M$  = mean;  $SD$  = standard deviation. Maximum possible score is 10.

The descriptive statistics of the vocabulary size test scores (see Table 3) show that the participants had an average receptive vocabulary size of roughly 6,000 words ( $M = 5991.11$ ,  $SD = 1,678.99$ ). The experimental and control groups were comparable in terms of vocabulary size ( $t = 0.99$ ,  $df = 88$ ,  $p > .05$ ). The data also indicate that a considerable variation existed among the participants' vocabulary sizes. They had vocabularies between 3,000 and 8,900 words.

**Table 3. Descriptive Statistics of the Vocabulary Size Test**

Group	Score	
	<i>M</i>	<i>SD</i>
Experimental ( $n = 44$ )	6009.09	1758.41
Control ( $n = 46$ )	5973.91	1618.70
Total ( $n = 90$ )	5991.11	1678.99

*Note.*  $M$  = mean;  $SD$  = standard deviation. Maximum possible score is 14,000.

Pearson correlation analysis was conducted to explore the relationship between vocabulary size and vocabulary-learning gains (see Table 4). The two variables showed a strong, positive correlation,  $r = .66$ ,  $n = 44$ ,  $p < .001$ , with high levels of vocabulary size associated with higher learning gains.

**Table 4. Pearson Correlation between Vocabulary Size and Learning Gains**

	Vocabulary size test	
	<i>r</i>	<i>p</i>
Vocabulary learning gains	.66**	< .01

Note. \*\* indicates  $p < .01$ .

In addition, a simple regression was used to explain L2 learners' learning gains based on their vocabulary size. Vocabulary size explained a significant amount of variance in learning gains,  $F(1, 42) = 31.77$ ,  $p < .01$ ,  $R^2 = .431$ ,  $R^2_{\text{adjusted}} = .417$ . The adjusted  $R^2$  indicates the amount of variance in learning gains that can be explained by vocabulary size. In this case, vocabulary size explained 41.7% of the participants' vocabulary gains and significantly influenced participants' target vocabulary scores. In addition, the regression coefficient ( $\beta = .656$ ) indicated that a one-point increase in vocabulary size test corresponded, on average, to an increase in vocabulary gain of .0656 points.

## 5. Discussion and Conclusion

The first research question addressed was the extent to which watching an academic lecture would lead to incidental vocabulary learning. In order to answer the first research question, vocabulary gains from experimental and control groups were compared through a meaning recall test. The results showed that the experimental group learned 3.5 words (35%) at the posttest, while the control group gained knowledge of 0.74 words (7.4%). The slight increase in target vocabulary knowledge among the control group might have been related to a testing effect (Rowland 2014). Testing effects are quite common in incidental vocabulary studies (e.g., Jin and Webb 2020), which suggests the necessity of using a control group to ensure that learning gains are solely ascribed to treatments. In this study, the experimental and control groups did not show a significant difference in their pretest scores, but the experimental group significantly performed better in the posttest. The results indicate that L2 learners can take advantage of academic lectures as input sources with which to learn new words at the meaning-recall level. This study expands on previous studies (i.e., Vidal 2003, 2011, Yang and Sun 2013) by using an unmodified video of a regular academic lecture and by including a control group. In fact, the present study found higher vocabulary gains (3.5 of 10 words, 35% of learning gains) as compared to previous vocabulary studies using academic lectures. For instance, Smidt and Hegelheimer (2004) reported 3.2 words gained out of 20 words (16%) from watching a 15-minute academic lecture, and Yang and Sun (2013) reported 16.69 gained out of 165 points (10.12%) from watching three lectures. The higher vocabulary gains reported in this study could be explained by the repeated occurrence of the target words in multiple contexts from the lecture. For Yang and Sun (2013), 24% of the target words occurred only once in the lectures, whereas in this study, as observed in Table 1, all of the target words occurred more than once. In fact, 25% of the target words were repeated at least five times throughout the lecture. Given that multiple exposures to words in meaning-focused input is a key for

incidental vocabulary learning to take place (Vidal 2003), this study's participants might have benefitted from having repeated encounters with the target words from the lecture.

In addition, the images used in the lecture for this study, including words and illustrations shown on PowerPoint slides and the lecturer's gestures, might have helped the participants notice target words. The video material was a recording of a live classroom lecture showing the lecturer on the left side of the screen and PowerPoint slides presented on the right side. The PowerPoint slides presented new concepts and terminology with relevant pictures, which might have helped the participants understand the lecture content. Such high levels of comprehensibility of the lecture might have improved vocabulary gains as well. Vidal (2003) noted that higher levels of lecture comprehension are likely to yield more significant vocabulary gains. In other words, a good understanding of the lecture might have translated into greater vocabulary gains.

In particular, this study shows that viewing academic lectures is effective sources of input that promote the learning of words, especially those with low-frequency levels and from specific academic disciplines. Most of the target words selected for this study were technical words closely related to cosmology, the lecture topic. Learning these technical words must have been quite challenging for the participants because understanding them also entailed mastering new concepts or information. However, because each of these words was presented within the context of cosmology, the learners might have been able to establish meaning networks among the words, which might have reinforced and augmented the learning of those words. This suggests that a teaching approach that presenting topic-related words as a group within the context of a related system should be considered to further help students acquire vocabulary. In addition, students in EAP settings should be encouraged to watch lectures continuously on topics related to their major in order to learn technical words and new content knowledge.

The second research question posed in the present study was the extent to which incidental vocabulary learning from an academic lecture is affected by L2 learners' vocabulary size. The present findings indicate that vocabulary gains were influenced by the participants' vocabulary size. The study revealed a strong correlation between incidental learning from viewing the lecture and participants' vocabulary size ( $r = .66$ ). Based on Plonsky and Oswald's (2014) field-specific benchmarks of effect sizes (small = .25, medium = .40, large = .60), the magnitude of the correlation was quite large. In this study, a regression analysis was performed to elucidate the relationship found by the Pearson correlation between vocabulary size and vocabulary learning gains. The results of the regression analysis were also in accordance with the correlation. The  $R^2$  value from the linear regression confirmed that vocabulary size explains learning gains to a large degree, at around 40%. This suggests that L2 words were learned incidentally by viewing an academic lecture and that vocabulary learning was likely to be enhanced when L2 learners have a larger L2 vocabulary. These findings are in line with those of previous studies showing that prior vocabulary knowledge is strongly associated with learning words (e.g., Peters and Webb 2018, Webb and Chang 2015). However, unlike prior research investigating non-academic genres (e.g., graded readers or television programs), this study examined an academic

genre. Thus, the results show that a larger vocabulary size also supports students in learning specialized words such as technical words.

The present findings add to the growing body of research showing that academic lectures are useful resources for incidental vocabulary learning (Vidal 2011, Yang and Sun 2013). Nonetheless, this study is not without its limitations. First, this study had only ten target words. The small number of words may influence the effectiveness of viewing an academic lecture. Although the participants were not forewarned about the target vocabulary test that was administered, they might have recalled the meaning of each target word more easily because there was only a small pool of them. Thus, it is necessary to investigate vocabulary learning through viewing a lecture by targeting a larger number of words in future research.

Second, the recorded lecture used in this study may not be representative of other types of academic lectures. Even though lecturing with PowerPoint slides is quite common in university settings, the teaching approaches and supplementary teaching materials used are likely to vary by classroom and lecturer. Therefore, the learning gains can differ based on the type of academic lecture watched.

Third, the frequency of target words in the lecture was not controlled. Their occurrence of frequency may have led to differential learning gains, considering that frequency in L2 input is a crucial element that affects vocabulary learning (Nation 2001). It would be useful to investigate how learning gains differ depending on the frequency of word occurrence.

In addition, the study was not designed to explore the long-term effects of viewing a lecture. Based on this study alone, it is not possible to determine whether the learning gains will be maintained. It might be worth examining the long-term effects by including a delayed posttest.

Finally, the study measured incidental vocabulary learning using a written-meaning recall test. In this study, however, the participants mainly encountered the spoken forms of the target words in the lecture. Therefore, future studies can present aural forms of the target vocabulary on the posttest to assess the learning gains from watching a lecture more thoroughly.

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Examples in: English

Applicable Languages: English

Applicable Level: Tertiary