

DESIGNING AN ENGLISH VOCABULARY WORKBOOK FOR HOSPITALITY STUDENTS BASED ON CORPUS-BASED APPROACH

Andi Rizki Fauzi¹, Suradi²

¹Akademi Pariwisata STIPARY Yogyakarta, Indonesia^{1,2}
fauziandirizki2@gmail.com

Abstract

The research about the use of the corpus-based approach in teaching English for Specific Purposes (ESP) to improve the students' vocabulary mastery has been conducted by many researchers. However, the product of the materials in teaching and learning vocabulary which leverages the use of corpus is very limited. For that reason, this study is aimed to design a prototype of an English vocabulary workbook for Hospitality students based on the corpus-based approach in determining the content, task, and activities carried out. This research uses Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model as the procedure to create a valid, practical, and effective English vocabulary workbook for Hospitality students and a corpus-based approach will be used in determining the target words, task, and activities in the workbook. Based on the result of the analysis using Wilcoxon test, it can be seen that the Asymp. Sig (2-tailed) is 0.000. As the value of 0.000 is smaller than 0.05, it can be concluded that there is a significant difference between the results of student learning before and after using the workbook developed.

Keywords: ESP, English Vocabulary, Workbook, and Corpus-Based Approach

INTRODUCTION

Vocabulary is considered an essential aspect of learning languages including English. It draws many researchers' attention for a few last decades as some of them conducting research and publishing books focusing on this issue (Nation,1990; Arnaud & Bejoint,1992; Schmitt, 1997; Schmitt, 2000; Thornbury,2002; Alqahtani,2015). Those generated research and books aimed to spotlight the importance of vocabulary in language learning. Recently, due to the development of technology, the way of teaching and learning vocabulary alters to better in acquiring language. Some researchers also have pointed to the effectiveness of using technology in improving the students' vocabulary mastery (Hermagustiana & Rusmawaty, 2018; Lari, 2014). The students can also enrich their vocabulary through videos from Youtube Jafre & Abidin,2011; Kabooaha,2018).or Mobile Phone Apps (Yafei,2016). As a result, they do not only rely on the materials given by the teachers in the classroom.

Although English vocabulary materials get easier to be accessed these days, the materials provided must be suitable and assist the learners in achieving their goal of learning (Alqahtani,2015). In designing and developing the materials, numerous studies have suggested the use of authentic materials in acquiring language (Santoso,2008; Kozhevnikova, 2014; Qamariah,2016; Adam et. al,2010). There are some significant advantages of using authentic materials such as students are exposed to real language and there is a factual acquisition from most of them (Martinez, 2002). In addition to that, authentic materials are not provided in conventional classroom-based instruction (Agarwal, 2010).

According to Sardinha (1999), one of the guiding principles in preparing materials for teaching should be the frequency of items in the corpus. The benefit of the corpus approach is that learners will acquire the form of the foreign language because they are engaged in exploring aspects of the native language based on authentic content (Dazdarevic & Fijuljanin, 2015). Although corpora have been widely used in EAP and ESP to derive frequency lists of words and phrases (Boulton, 2016), the workbook provided in teaching and learning English vocabulary for hospitality students based on corpus is very limited.

For that reason, this research aims to design and develop a prototype of an English vocabulary workbook for Hospitality students constructed through the corpus-based approach. The authentic materials from corpus data are designed based on the students' needs that engage the students to be more active and creative leveraging the corpus data in learning English for Hospitality.

A corpus is a collection of authentic texts (written or spoken transcripts) that are stored in an electronic form (Partridge, 2006). Besides, corpus linguistics is not only a linguistic field but also a methodology that is important to base one's analysis of language on real data (actual instances of speech or writing) rather than on contrived data or made-up (Meyer, 2002).

Linguists turn to corpus linguistics for ways of improving language teaching, which does make sense, especially for EFL vocabulary teaching (Hongyan,2018). Some researchers applied corpus in teaching vocabulary and proved that the corpus

had a positive impact on vocabulary acquisition (Hou,2014; Shaw, 2011, Luisa & Varela, 2012).

In acquiring the vocabulary, some challenges which entailed learning vocabulary were listed (Donesch-jezo, 2016) as follows:

- a. Making the correct connections between the form and the meaning of the words;
- b. Distinguish the meanings of phonologically closely related words, e.g. noon and moon;
- c. Use the correct form of a word for the meaning intended, e.g. law, not low;

To conform to these challenges, the learner needs to:

- a. Acquire a great number of words for use in understanding and producing language;
- b. Remember words, and be able to recall them easily;
- c. Develop strategies for coping with gaps in word knowledge, including coping with unknown words.

The challenges above must be the guidance for the teachers to find the best way and materials that effectively improve the students' vocabulary.

Applying corpus in teaching English vocabulary is closely related to the occurrence of the words in a different context. Using software such as *AntConc* or an online source such as *COCA corpus* enables the students to see how the word is used and arranges the vocabularies based on their frequency. Frequency information ensures that “learners get the best return for their vocabulary learning effort.” Thus, the frequency seems to be the most appropriate measure to decide on the usefulness of a word (Nation and Waring, 1997)

METHODOLOGY

This study used a Research and Development (R&D) design. R&D is an attempt to develop or produce and validate a production that is used in learning (Borg, 1989). The research data were collected from the third-semester students of Diploma

III in Hospitality at STIPARY Tourism Academy Yogyakarta through the interview, questionnaires, documentation, and test.

Overall, there were four types of the collected data in this research as follows:

1. Descriptive data obtained from the development of workbook based on the ADDIE Model
2. Corpus Data containing important vocabulary for Hospitality Students from a small corpus built based on the topic.
3. Validity data from the validators' assessment results toward the workbook design.
4. Practicality Data based on the questionnaire given to the students
5. The data effectiveness of the workbook obtained from the test given

The procedure of this research adopted the model of R & D which is called Analysis, Design, Development, Implementation, and Evaluation (ADDIE). The steps are explained below:

Analyzing

The first step is conducting the needs analysis. It is divided into student analysis and curriculum analysis. Those two analyses are very crucial as the model of workbook design must encourage the students to participate actively in the classroom and the vocabulary workbook must contain the vocabularies in the Hospitality field which are needed by the students. For this purpose, a small corpus is built based on the topic and target vocabulary was determined.

Designing

The second step is product planning and product designing based on the need analysis. This step covers the interpretation of the students' needs and learning goals into specific objectives of the workbook design. It also considers the use of the corpus-based approach where the workbook design must enable the students to get more exposure to the authentic materials from the corpus data. As the design produced is a prototype, the researcher proposed two units in the English vocabulary workbook divided into two different topics related to the curriculum analysis. Target words that are included in each unit are retrieved from the small corpus which was built.

Developing

In this phase, the researcher focuses on creating and developing the workbook. It is discussed and consulted with the validators who have experiences in teaching English for Tourism. The validator consists of 2 experts, namely Drs. Agung DS Daniswara, M.A. and Tyas Purnawati, M.Pd. They both are English lecturers of STIPARY Tourism Academy. The validation process comprises of three aspects: content validity, and presentation validity.

Implementation

In this step, the workbook was given to the students. To find out the practicality of the workbook the questionnaire was distributed to the students and to know the effectiveness of the workbook, one group pretest-posttest was administered. The design of the experiment can be seen in the table below (Sugiyono,2012):

Table 1: One group pre-test-post-test design

Pre-test	Treatments	Post-test
Q1	X	Q2

Where:

Q1: the pretest

X: the treatment to the group of students who learn by using the workbook

Q2: the posttest

Evaluation

In this step, the workbook was evaluated based on the results of the questionnaire distributed and the test results. This process was aimed to develop and produce a workbook

design that can be used by the hospitality students in a larger area. Overall procedures for implementing this model can be figured as follows:

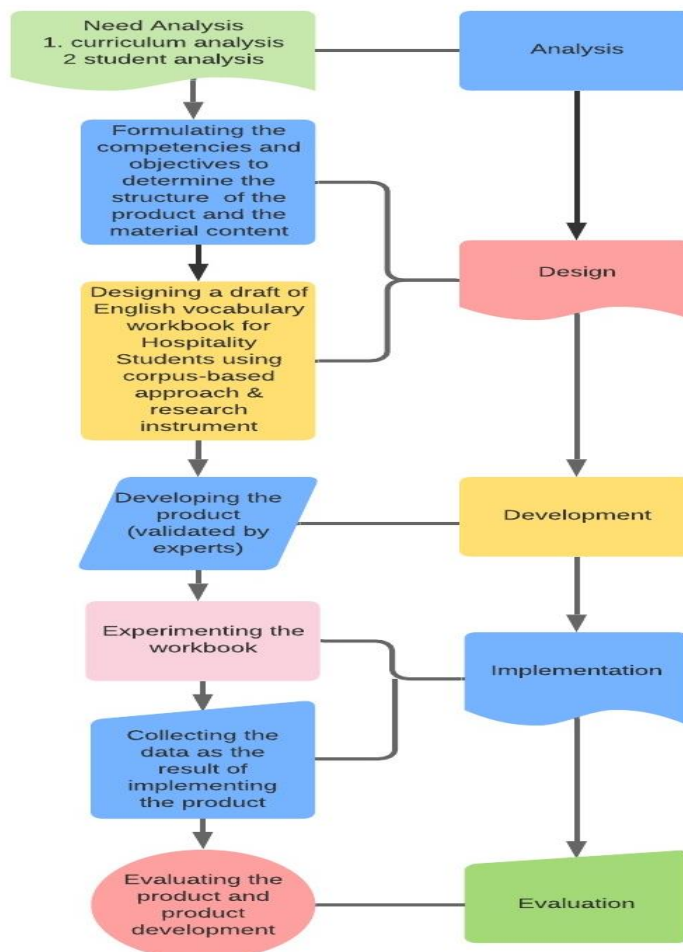


Fig 1. The procedure of the research using the ADDIE Model

FINDINGS

1. Analysis

The first stage in this research is Analysis which consists of needs analysis, curriculum analysis, and analysis of student characteristics. The need analysis was carried out through interviews with two lecturers who teach English at STIPARY Tourism Academy, and the curriculum analysis is carried out through the curriculum used in teaching English which is based on Indonesia National Working Competence

Standard (SKKNI). Observation is done to know the characteristics of the students. The needs analysis is carried out to know to what extent teaching English for Hospitality students was done.

The interview was carried out with two respondents LA and TP who teach English for Hospitality students with various subjects such as English for Cruise Ship, English Structure, English Conversation Class, and Basic English. Based on the result of the analysis, both two respondents did not apply the curriculum in teaching the students. They created and modified the teaching materials by themselves. Internet sources such as English.com was used as the source of materials. Without referring to the curriculum in teaching, the students certainly do not have a tangible goal to be achieved after accomplishing the learning. However, based on the interview, the respondents agree that in teaching English for Hospitality students, speaking is placed the priority without neglecting other English skills such as listening, reading, and writing. One of the aspects they considered affecting the English speaking proficiency skill is the vocabulary mastery. It was stated by TP that if the students have more vocabulary, they can speak more to the guest. The speaking skill should be mastered as it can support the students' future career as Hotelier. They also agree that the vocabulary that must be learned are those associated with the tourism field.

The lack of vocabulary causes a big hindrance for students to deliver their thought verbally. In everyday classes, the respondents also focused on building the students' vocabulary through some activities such as drilling vocabulary list, using the picture, watching the video, and playing the game. However, LA stated that she has no sources in learning vocabulary, while TP asked the students to make a vocabulary list to be learned. Both respondents also agree that authentic text e.g newspaper and magazine can be very beneficial for improving the student's vocabulary mastery. They stated that word exposure can make the students remember the words. They also answered that the English vocabulary workbook is very necessary to use in Teaching English.

The curriculum analysis is also carried out to formulate the students' learning outcomes so that the design of the workbook will concern the competencies that the

students want to achieve. In Diploma 3 of Hospitality, the curriculum was based on SKKNI to achieve competence in qualification level of 5. In this level the students are expected to be able to:

- a. Complete a broad scope of work
- b. Choose the appropriate method from a variety of standardized and non-standard options by analyzing data,
- c. Demonstrate performance with measurable quality and quantity
- d. master the theoretical concepts of certain fields of knowledge in general,
- e. Formulate solutions to procedural problems.
- f. Manage workgroups and compile comprehensive written reports.
- g. Responsible for their work and can be given responsibility for the achievement

From the list above, Diploma 3 of Hospitality at STIPARY Tourism Academy focuses on some competencies needed in some fields related to hospitality such as food and beverage services, provision of accommodation, organizing meetings, incentive trips, conferences, and exhibitions (MICE), and tour guide services. That is why the students must follow the subject which is associated with all of the areas that will be occupied in their future career. The subject such as Bartending, Restoran Operation, Basic cooking, Cooking advance, Room attendant, Tour Travel and Cruiseship and Housekeeping are learned.

Based on the core competencies in the specific fields above, English is learned to be used in oral communication at a Basic operational level. Therefore, speaking becomes the skill that must be mastered by the students. To have great English speaking proficiency, learning vocabulary is a must as without vocabulary, the speaking activity is impossible. Therefore, a model of English vocabulary workbook is designed to help the students focusing on vocabulary related to their field. Two units of the workbook were designed and in each unit, the students must learn all the target vocabulary which were taken from the small corpus built. All the target vocabulary was determined and selected based on the connection of the words with

the topic and their frequency in the corpus. Thousand of articles related to the topic were collected from some websites as ca be seen below:

Table 2: The source of articles to build the corpus

Unit 1: At the Hotel	Unit 2: Tour and Travel
http://hotelmagazine.co.nz	https://www.lonelyplanet.com
http://www.thejakartapost.com	https://indietravelpodcast.com
https://www.theguardian.com	https://www.thetravelmagazine.net
https://www.thetravelmagazine.net	http://www.travelandtourworld.com
http://www.travelandtourworld.com	https://www.traveldailynews.com
https://www.traveldailynews.com	https://www.travelweekly.com
http://www.travelweekly.com	https://traveltips.usatoday.com
http://www.usatoday.com	
http://lodgingmagazine.com	
http://www.hotel-online.com	

2. Design

The second stage of the ADDIE development model is designing the corpus based vocabulary workbook. There were 4 steps at this design stage such as designing the workbook framework, building a corpus based on the topic in the unit, selecting target vocabulary, compiling the workbook design and features, and preparing the workbook assessment instruments.

3. Development

The third stage of the ADDIE development model is the development process. This stage aims to see the extent of the feasibility of the workbook that has been designed. After getting an assessment from validators, the workbook is revised according to the validator's criticism and suggestions. The validator consists of 2 experts, namely Drs. Agung DS Daniswara, MA and Tyas Purnawati, M.Pd.

a. Validation Results

The quality of the workbook based on the assessment by the material expert showed a total average score of 4,8 of the maximum average score of 5.00, thus the workbook indicates good criteria. However, there are suggestions from material expert validator that must be considered. The validator's suggestion is regarding the learning outcome that must be adjusted to the objectives of making the workbook design.

Meanwhile, based on the average results of workbook validation conducted by media experts, it is found that the total average is 4.7 from the maximum average of 5. This shows that the workbook presentation is carried out with good criteria. The validator's suggestion is to add a bar code containing the pronunciation of the target vocabulary that can be used to help students

b. The workbook Revision

Revision of the workbook was carried out based on responses, criticism, and advice from the validator to reach a better quality workbook. The revision of this workbook was carried out such as revising the learning outcomes of the vocabulary workbook and adding a barcode containing the pronunciation sound of the target vocabulary so that the students did not only see the symbols in written form but also listen to how the target vocabularies are pronounced through accessing it from a bar code given. They can listen to how each word is pronounced as many as they need.

4. Implementation

The fourth stage of the ADDIE development model is the implementation process. After the workbook was revised based on the suggestions given by the validator, the workbook was applied in the classroom. The implementation was held in 8 meetings in class with 75 minutes of duration per meeting. At this stage, the researcher applied all activities in the workbook from Unit 1 to Unit 2. Learning activities begin with doing apperception activities, motivating students, and telling the learning objectives. During the eight meetings that were held, several phases were passed in the workbook implementation process.

a. Phase 1 (Meeting 1)

Introduction related to the linguistic corpus, this is very important to do considering that the linguistic corpus approach is something new for students. The explanation related to what a linguistic corpus is, how to build a corpus, and software tools used in analyzing corpus data is conveyed to students.

b. Phase 2: (meeting 2)

This phase is the explanation regarding the vocabulary target that would be learned in the workbook. The explanation regarding the selection of vocabulary targets was conveyed to students, and they used *AntConc* software to get access to vocabulary targets. Besides, students were introduced to the online Corpus (COCA corpus) and how to take advantage of the features in it. The explanation related to how to use the workbook was also given so that the students knew the process of learning activities in the workbook.

c. Phase 3 (meeting 3 – 8)

In this phase, students began to use the workbook according to the instructions given starting from defining the meaning of the target vocabulary, pronouncing the word, exploring the target vocabulary through the corpus, and using the word collation of the target vocabulary in speaking.

5. Evaluation

The fifth stage of the ADDIE development model is the evaluation stage. After the implementation stage is carried out, the next stage is the workbook assessment. At this stage, the workbook is assessed based on the practicality and effectiveness aspects. The practical aspect can be seen from the student's response to the questionnaire. While effectiveness aspect can be seen from the results of the post-test scores.

a. The practicality of the workbook

The student response questionnaires were used to assess the practicality of the workbook. The assessment was carried out related to aspects of interest,

material, and language. Of 52 students who were involved in all the activities in the research project, only 50 students assessed the questionnaire.

Based on the results of the student response questionnaire containing favorable statements, it can be concluded that the average score in each item showed more than 3,00 from the maximum average score of 4,00 which means the students agree toward the favorable statements given. Therefore, the workbook does not need to be revised.

b. The effectiveness of the workbook

The results of the post-test were used to determine the level of effectiveness of using workbooks, especially to improve vocabulary skills. Based on the result above the mean score of the students on the pre-test result is 32,9. The mean score changed to 57,31 after the students used the developed workbook. This showed the students' mean scores in the pre-test and post-test increased. However, before examining the effectiveness of using the workbook, a normality test was carried out to determine whether the data distribution was normal or not so that it met the requirements to perform parametric statistical testing. The analysis was carried out using the SPSS application and the result can be seen as follows:

Tests of Normality

Kelas		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil Belajar Siswa	Pre-test	,157	52	,003	,930	52	,005
	Post-test	,120	52	,058	,956	52	,055

a. Lilliefors Significance Correction

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Hasil Belajar Siswa	Based on Mean	4,508	1	102	,036
	Based on Median	3,704	1	102	,057
	Based on Median and with adjusted df	3,704	1	101,935	,057
	Based on trimmed mean	4,751	1	102	,032

Fig 2. The normality test results in the analysis

Based on the above analysis, the pre-test significance value is 0.003 which is more than 0.05. That means the data distribution is not normal. Meanwhile, the significance value on the post-test shows a value of 0.058 or more than 0.05. because there were data that were not normally distributed, a non-parametric statistical test was performed to replace the paired sample t-test, namely using the Wilcoxon test. The result of the Wilcoxon test can be seen as follows:

Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
Hasil Post-test- Hasil Pre-test	Negative Ranks	3 ^a	12,17	36,50
	Positive Ranks	45 ^b	25,32	1139,50
	Ties	4 ^c		
	Total	52		

- a. Hasil Post-test < Hasil Pre-test
 b. Hasil Post-test > Hasil Pre-test
 c. Hasil Post-test = Hasil Pre-test

Test Statistics^b

	Hasil Post-test- Hasil Pre-test
Z	-5,667 ^a
Asymp. Sig. (2-tailed)	,000

- a. Based on negative ranks.
 b. Wilcoxon Signed Ranks Test

Fig 3. The Wilcoxon test result analysis

The Wilcoxon test was performed as an alternative to the paired sample t-test due to the abnormal distribution of the data. Based on the results of data analysis, it can be seen that the negative rank is 3, which means that three students experienced a decrease in value from pre-test to post-test. The positive rank value is 45 which shows that 45 students have increased from pre-test to post-test scores. Meanwhile, the Ties value is 4 which means there are 4 students whose scores between the pre-test and post-test are the same. Also, based on the analysis output, it can be seen that the Asymp. Sig (2-tailed) is 0.000. As the value of 0.000 is smaller than 0.05, it can be concluded that there is a significant difference between the results of student learning before and after using the workbook developed.

The result analyses above showed that vocabulary workbook design based on the corpus-based approach was proven to have a positive contribution to improving student's vocabulary. The result of the questionnaire also showed that the design of the students' activity through deductive learning activities such as guessing the meaning through the context encouraged the students to be more independent learners and be more active in learning vocabularies. It is in line with Alqahtani's statement (2015) that guessing from context encourages learners to take risks and guess the meanings of words they do not know as much as possible. This will help them build up their self-confidence so that they can work out the meanings of words when they are on their own.

In addition to that, through the activities in the workbook, the students were provided with the most frequent words that occur in the topic. This information enabled both the teachers and the students to recognize the words they should focus on the teaching and learning process. It is supported by Izaks (2015) who said that the corpus based-approach can assist the students in informing the types of vocabulary such as (1) high frequency, (2) mid-frequency, (3) low-frequency, (4) academic vocabulary, and (5) technical vocabulary. Therefore, by using corpus-based approach, the word selection can be conducted based on the teacher's or students' needs.

CONCLUSION

Based on the results of the data analysis, it can be concluded that the English vocabulary workbook based on the Corpus-based approach has been designed in the form of a prototype using the ADDIE model. The workbook has fulfilled the validity aspect after the validity test was carried out by the material and media experts. The workbook that has been developed has fulfilled the practicality which could be seen from the results of the student questionnaire. The mean score of the students' response in each item was 3,128 from the maximum average score of 4.00 and it was categorized as good. The workbook has also been proven to be effective in use and able to improve students' vocabulary skills. It could be seen from the results of the analysis using the Wilcoxon test where Asymp.Sig (2-tailed) is 0.000 which can be

concluded that there is a significant difference between the results of student learning before and after using the workbook developed.

ACKNOWLEDGEMENTS

This article is part of research funded by the Ministry of Research and Technology / National Agency for Research and Innovation in 2020.

REFERENCES

- Adam, S. L., Stan, R. S., Moanga, A. S., Oroian, E., Mihai, M., & Ciubancan, M. (2010). The Role of Authentic Materials in Foreign Language Teaching. *Bulletin UASVM Horticulture*, 67(2), 431–435.
- Agarwal, M. K. (2010). Internet-Based Language Learning and Teaching. *Innovative Infotechnologies for Science, Business, and Education*. 1(8), 3–7.
- Alqahtani, M. (2015). The Importance of Vocabulary In Language Learning And How To Be Taught. *International Journal of Teaching and Education*. 3III(3), 21–34. <https://doi.org/10.20472/TE.2015.3.3.002>
- Arnaud, P. & Bejoint, H. (1992). *Vocabulary and Applied Linguistic*. Basingstoke: Macmillan.
- Borg, Walter, R. (1989). *Educational Research, an Introduction*. New York: Longman Inc.
- Boulton, A., & Boulton, A. (2016). Integrating corpus tools and techniques in ESP courses, (March 2017). <https://doi.org/10.4000/asp.4826>
- Dazdarevic, S., & Fijuljanin, F. (2015). Benefits Of Corpus-Based Approach To Language Teaching, 3(7). Retrieved from <https://www.researchgate.net/publication/282186652>
- Donesch-jezo, E. (2016). Using Language Corpus in Teaching Foreign Language Vocabulary, (October), 10–25.
- Hermagustiana, I., & Rusmawaty, D. (2018). The Use of Technology for Vocabulary Instruction in EFL Classrooms : Support and Challenges, 144, 137–143.
- Hongyan, L. (2018). A Study on Corpus-Based EFL Vocabulary Teaching. *Journal of Intensive Studies on Language, Literature, Art, and Culture*, 2(2), 21–25.
- Hou, H. I. (2014). Teaching specialized vocabulary by integrating a corpus-based approach: Implications for ESP course design at the university level. *English Language Teaching*, 7(5), 26–37. <https://doi.org/10.5539/elt.v7n5p26>
- Izaks, J. (2015). *A study of the effects of an undergraduate vocabulary programme on vocabulary development and academic literacy*. University of South Africa (Unisa), Pretoria, South Africa

- Jafre, M., & Abidin, Z. (2011). The Effectiveness of Using Songs in YouTube to Improve Vocabulary Competence among Upper Secondary School Studies, *1*(11), 1488–1496. <https://doi.org/10.4304/tpls.1.11.1488-1496>
- Kabooha, R., & Elyas, T. (2018). The Effects of YouTube in Multimedia Instruction for Vocabulary Learning : Perceptions of EFL Students and Teachers, *11*(2), 72–81. <https://doi.org/10.5539/elt.v11n2p72>
- Kozhevnikova, E. (2014). Exposing students to authentic materials as a way to increase students ` language proficiency and cultural awareness. *Procedia - Social and Behavioral Sciences*, *116*, 4462–4466. <https://doi.org/10.1016/j.sbspro.2014.01.967>
- Lari, F. S. (2014). The Impact of Using Power Point Presentations on Students ` Learning and Motivation in Secondary Schools. *Procedia - Social and Behavioral Sciences* *98*(2009), 1672–1677. <https://doi.org/10.1016/j.sbspro.2014.03.592>
- Luisa, M., & Varela, R. (2012). Corpus Linguistics and Language Teaching : Learning English Vocabulary. *ES. Revista de Filología Inglesa*, *33*, 285–300.
- Martinez, A.G. (2002). *Authentic materials: An overview*. Free resources for teachers and students of English, *Karen's Linguistics Issues*, 1-7.
- Meyer, C. (2002). *English corpus linguistics: An introduction*. Cambridge: CUP. <http://dx.doi.org/10.1017/CBO9780511606311>
- Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Boston, Mass.: Heinle&Heinle Publishers
- Nation, P., and R. Waring. 1997. 'Vocabulary size, text coverage, and word lists' in N. Schmitt and M. McCarthy (eds.). *Vocabulary: Description, Acquisition, and Pedagogy*. Cambridge: Cambridge University Press.
- Partridge, B. (2006). *Discourse analysis*. New York, NY. Continuum.
- Qamariah, Z. (2016). Authentic Materials, an Alternative in English Classroom. In *Proceedings of the 2nd National Conference on English Language Teaching (NACELT)* (pp. 23–32). Palangka Raya: IAIN Palangka Raya.
- Santoso, E. (2008). The effectiveness of using authentic texts in the teaching reading comprehension, 166–180.
- Sardinha, B. (1999). Beginning Portuguese corpus linguistics: Exploring a corpus to teach Portuguese as a foreign language. *Revista de documentação de estudos em lingüística teórica e aplicada*, *15*(2), pp. 289-300
- Schmitt, N. (1997). Vocabulary learning strategies. In Schmitt, N. and McCarthy, M. (eds.) *Vocabulary: Descriptive, Acquisition and Pedagogy*. Cambridge: Cambridge University Press.
- _____. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Shaw, E. M. (2011). *Teaching Vocabulary Through Data-Driven Learning*. Brigham Young University.
- Sugiyono. (2012). *Research Methods, Quantitative, Qualitative, and R & D*. Bandung: Alfabeta-Ind.
- Thornbury, S. (2002). *How to teach vocabulary*. Essex: Pearson Education Limited.

Yafei, O. Al. (2016). Mobile Phone Apps : An Emerging E-Platform for Vocabulary Learning and Retention, *3*(7), 286–308.