

Boosting Up Vocabulary Attainment of Low Achievers in English

Jagdeep Kumar¹, Kalpana Thakur^{2*}

¹TGT English, Government High School, Matheri Shekhan, Ambala, Punjab, India

²Institute of Educational Technology & Vocational Education, Panjab University, Chandigarh, India

ABSTRACT

The present study aimed at investigating the effect of reciprocal teaching on vocabulary attainment in English of seventh grade students who are low achievers in English. Pre-test – post-test with one control group design was employed. An English competency test was administered to 226 VII grade students of two Government schools of Chandigarh, 100 students were identified as low achievers. These low achievers on English Competency test form the sample of the study. Out of 100 students 50 students of one school were randomly assigned to experimental group and 50 students were assigned to control group. The experimental group was taught through reciprocal teaching where students worked in groups and assumed the role of predictor, questioner, clarifier, summarizer. The treatment was given for 51 days. The control group was taught through conventional chalk and talk method. The mean gain scores on vocabulary attainment were calculated for both experimental and control groups and one-way analysis of variance was employed to find the difference between the two groups and it was found that reciprocal teaching resulted in improvement of vocabulary attainment of students who are low achievers in English.

Keywords: Reciprocal teaching, Low achievers, Conventional method, Vocabulary attainment

Journal of Teacher Education and Research (2024). DOI: 10.36268/JTER/19103

INTRODUCTION

Vocabulary is a significant aspect of language competence. It pertains to four language skills i.e. Listening, Speaking, Reading and Writing. Vocabulary competence includes the reserve of perceptive vocabulary as well as productive vocabulary. Nation and Waring (1997) conceptualize the ability to provide a specific first language (L1) translation of the second language (L2) word as the receptive knowledge, whereas the ability to provide a specific L2 equivalent for an L1 word as the productive knowledge. Webb (2008) proclaims that receptive vocabulary knowledge is the ability to recognize the form of a word and to define or find a synonym for it, while productive vocabulary knowledge is the ability to recall the form and meaning of a language word in a foreign language. The lack of word-stock adversely affects one's ability of verbal and written communication. According to Nation (2001) readers should know at least 97% of the vocabulary in a text for an adequate understanding of it. Alqahtani (2015) too cited that word knowledge is crucial to reading comprehension. Vocabulary development is a continuous process wherein an individual makes regular efforts to increase his or her collection of novel words. One way of cultivating vocabulary is to keep on exposing oneself to new material in the target language. Exposure in the form of writing effectively offers a greater context to comprehend and use the new words in the course of communication. Communication hinders when it fails to convey the projected message through appropriate vocabulary.

Language development is directly related to the vocabulary as it is one of the prominent aspects in the acquisition of language. During infancy, when child is learning to speak, he picks up words randomly from his environment which is first sign of language development. Development of vocabulary also leads to development of capacity of learning (Manzo, Manzo & Thomson, 2006). Many foreign and second language learners begin to pronounce words appropriately over a period of time. In terms of written communication, the spellings and the associations hold

Corresponding Author: Kalpana Thakur, Institute of Educational Technology & Vocational Education, Panjab University, Chandigarh, India., e-mail: kalpanathakuredu@gmail.com

How to cite this article: Kumar, J., Thakur, K. (2024). Boosting Up Vocabulary Attainment of Low Achievers in English. *Journal of Teacher Education and Research*, 19(1):9-13.

Source of support: Nil

Conflict of interest: None

significant relevance. Similarly, the word formation is an equally important facet in language learning. Clark (1993) opined that words are the starting point. Without words, children cannot talk about people, places, or things, about actions, relations, or states. Students acquire the tools of vocabulary in many appearances. In order to master the skills of a language, they are expected to exercise a considerable command on vocabulary. Nowadays, due attention is being given to vocabulary development. Teachers in schools understand the need of English vocabulary teaching. They understand the need to generate the interest of the students towards vocabulary enrichment. It is universally agreed that a strong command over words is an imperative to be a proficient learner of foreign language. Allen (1983) opined that vocabulary is a consolidative part of any act of any language, without which, communication is impossible. According to Rupley, Logan, and Nichols (1998) vocabulary holds stories, ideas, and content together making comprehension accessible for children. Snow, Burns, and Griffin (1998) cited vocabulary, or lexicon, as information stored in memory concerning the pronunciation and meanings of words. According to Richards and Schmidt (2013) vocabulary means all the words that someone knows, learns or uses.

The access to vocabulary is both incidental and intentional. Since language learners expose themselves to a wide array of enlightening social circumstances, many words of first language are acquired incidentally. It is however challenging for EFL (English as

foreign language) learners to acquire a significant number of words in instructional frameworks. In order to cope up with this problem, it has been suggested that whenever learners are exposed to reliable target language material, they should be trained in communicative strategies such as contextual inference of the meaning of new words so that incidental acquisition can take place, somewhat copying the first language acquisition process (Krashen, 1989). But the language content is principally developed not to impart the usage of language but merely to convey the information given in the content to the native speakers. Hence, the entire process is largely unproductive for the learners as the focus is on grasping the facts given in the information and in not learning the new vocabulary.

Many studies have been conducted pertaining to vocabulary attainment. Qian (1997) found highly positive correlation between reading comprehension in English as a second language (ESL), vocabulary size and depth of vocabulary knowledge. Huntsinger, Jose, Larson, Balsink Krieg, and Shaligram (2000) focused on receptive English vocabulary. Marzano, Pickering, and Pollock (2001) believed vocabulary has a strong relationship with intelligence. Carbo (2007) pointed out that extensive reading enables vocabulary to grow rapidly. Students who were encouraged to use new words in a variety of context, who were given time to compare and contrast vocabulary, meaning, and who encountered words on multiple occasions were able to increase their vocabulary and comprehension (Silverman, 2005). Kharaghani and Ghonsooly (2015) found that there was relationship between vocabulary knowledge and the level of motivation in reading comprehension skill of Iranian English as a foreign language (EFL) learner. There is positive effect of computer-assisted language learning (CALL) on vocabulary knowledge, reading comprehension, and speed of word recognition (Tozcu & Coady, 2004). Abraham (2008) revealed that Computer-mediated classes had an overall medium effect on second language reading comprehension and a large effect on incidental vocabulary learning. Haug (2010) reported significant improvement in vocabulary and fluency of struggling readers of English language through the effect of a 4-week summer literacy program. Mandel, Osana and Venkatesh (2013) found improvement in vocabulary when taught through reciprocal teaching. Bonsa and Wolde-Mariam (2014) found that lot of improvement was found in vocabulary of high and low achievers when exposed to vocabulary learning strategies. Deng (2016) examined the effect of a researcher-led self-regulated vocabulary intervention on word knowledge, reading comprehension, and effective results for upper elementary ELLs. Along with students, vocabulary strategy instructions are must for teachers (Gray, 2012; Kassem, 2018). Cavalli, Casalis, El Ahmadi, Zira, Poracchia-George & Cole (2016) found dyslexics systematically outperformed their chronological age controls in the vocabulary depth task through Rasch model. Cain, Oakhill and Elbro (2003) and Arcila – Knortz (2015) reported no improvement in vocabulary when using ESOL strategy. But, most of the studies revealed improvement in vocabulary when some intervention strategy is used in teaching learning process. Palinscar, Brown, and Martin (1987) made frequent efforts to study reciprocal teaching and how it influences the student learning. Reciprocal teaching is the dialogue employed by the students in connection with strategies summarizing, questing, clarifying, and predicting (Ghoani, Gangaraj & Alavi, 2013). Various other researchers had also investigated reciprocal teaching strategies (Ismail, Ahmadi & Gilakjani, 2012; Reichenberg & Kent, 2014; Wardani, 2016). These four strategies provide two functions; those are enhancing comprehension (comprehension-fostering) and at the same time checking the students' comprehension (comprehension-monitoring) (Palinscar &

Brown, 1984). In the present study, reciprocal teaching is taken as intervention strategy and the objective is on the improvement of vocabulary enrichment which the student undertakes along with the objective of attaining new knowledge. So, the present study aimed to investigate following research question.

RESEARCH QUESTION

Does reciprocal teaching result in greater vocabulary attainment of low achievers in English than in conventional settings?

Delimitations of the Study

- The study was delimited to two Government Model Senior Secondary Schools of Chandigarh.
- The study was conducted on VII Grade students who are low achievers in English only.

The experiment was restricted to 51 working days of the academic session.

METHODOLOGY

Sample

Out of 115 Government schools of U.T, Chandigarh, two schools Government Model Senior Secondary School, Sector 38 - D, Chandigarh and Government Model Senior Secondary School, Sector 37- D, Chandigarh were selected randomly by employing lottery method for which permission from District Educational Office (DEO), Sector 19, Chandigarh was sought. An English Competency Test was administered to 220 students of class VII of these schools as per instructions given in the manual. Scoring was done with the help of scoring key. The students who score below $M - 1\sigma$ were considered as low achievers and selected for the final sample. Thus, on the basis of the scores obtained by the students the English competency test, 100 students were identified as low achievers in both the schools. The students in two schools were randomly assigned to experimental and control group. 50 students in Government Model Senior Secondary School, Sector 37 - D, Chandigarh form the experimental group and 50 students in Government Model Senior Secondary School, Sector 38- D, form the control group.

Design

The study was experimental in nature and randomized control group pre-test post-test was employed. Control group was taught in conventional instruction settings. Experimental group was exposed to reciprocal teaching. Two groups were assessed before and after the treatment on Vocabulary attainment. The pre-test scores of both the groups were also subjected to one way ANOVA and it was found that ($F = 0.69, p > .05$) no significant difference existed on level of vocabulary attainment of both the groups before the treatment.

Thereafter, treatment was given to the experimental group for approximately about 51 working days (41 lessons and 10 formative tests). In the present study the investigator studied the effect of reciprocal teaching (independent variable) on vocabulary attainment (dependent variables) of low achievers in English. The data was analysed by employing one way ANOVA on the mean gain scores of vocabulary attainment (difference in post-test and pre-test scores).

Tools Used

The following tools were used:



- Instructional material/lesson plans based on the reciprocal teaching, total 41 lessons were developed and validated by the investigator. The lessons were based on English syllabus prescribed by NCERT, New Delhi and the 10 chapters included were: Three Questions, A Gift of Chappals, Gopal and the Hilsa Fish, The Ashes that Made Tree Bloom, Quality, Expert Detective, The Invention of Vita-Wonk, Fire: Friend and Foe, A Bicycle in Good Repair & The Story of Cricket.
- Worksheets based on the above lessons, total 41 worksheets (developed and validated by the investigator).
- English Competency Test in English (developed by the investigator) comprised of 57 multiple choice type items based on synonyms, antonyms, modals, one-word substitution, adverbs, homophones, preposition, and tenses. Reliability of the test was found to be 0.92 calculated by KR-20 formula and content validity was established.
- Vocabulary attainment tool in English (developed by the investigator). The final tool consisted of 43 items comprising types of items in various domains viz. synonyms, antonyms, correctly spelled word, best meaning of the underlined word, choose the correct option, odd one out, correct use of the underlined as verb, sentence completion, solve the puzzle. The reliability of the tool by KR-20 formula was found to be 0.86. Content validity was established.

Conducting the Experiment

The experiment was conducted in three phases as given below:

Phase I: Administration of Pre-test

In this phase, Vocabulary attainment tool was administered to both the experimental and control groups, scoring was done and thus, pre-test scores were obtained.

Phase II: Conducting the instructional program

The students in experimental group were exposed to reciprocal teaching whereas no such treatment was given to control group. Both the experimental and control groups were taught same 10 chapters of English syllabus prescribed by NCERT, New Delhi. The chapters included were: Three Questions, A Gift of Chappals, Gopal and the Hilsa Fish, The Ashes that Made Tree Bloom, Quality, Expert Detective, The Invention of Vita-Wonk, Fire: Friend and Foe, A Bicycle in Good Repair & The Story of Cricket. Before starting the actual treatment, two demo lessons on The Tsunami and The Best Christmas present in the world were given to orient the students towards reciprocal teaching.

Instructional Program for Experimental Group

Experimental group was taught through reciprocal teaching. Students were explained the steps of instructional treatment. The 50-minute period was divided as: 10-12 minutes for teacher-directed instruction/brief orientation of the content, the next 20 minutes for group work on blank work sheets (given by teacher/investigator) in their teams to master the material and last 18-20 minutes of period were used for student teacher interaction. For reciprocal teaching following steps were followed:

Introduction of the lesson

Teacher/Investigator divided the lesson into small chunks, read the content to all the groups, once explained the meaning of the difficult words.

Working in Groups

Students were divided into the group of four and worked worksheets for 20 minutes based on the lesson. Each student is assigned the role viz. predictor, questioner, clarifier and summarizer based on the steps of reciprocal teaching (Pilonieta & Medina, 2009) and were supposed to complete the work sheet and perform the role assigned in the group as below:

Prediction

(ask students to predict what they think the reading may be about, what has already taken place and what can happen next).

Questioning

(remind students to generate three levels of question from the content: Right-There questions, between the lines questions, critical thought questions, the questions could be about the characters, plot, new vocabulary words).

Clarify

(It is answering the posed questions and students can also ask themselves what words, phrases and pronunciation are unclear to them).

Summarize

students summarize verbally, within pairs, and then share with their assigned small group or record their summary and read it aloud to their small group.

Students were required to complete the worksheet as per directions given on it. The blank spaces are provided on the worksheet. During this time, the teacher/researcher monitored the groups closely, motivated the groups. In all, students were given 41 lessons covering ten chapters. Worksheets were associated with each lesson. All the students were given following instructions for working in a group as follows:

- You are divided into a group of four. Each student will be assigned the role of viz. predictor, questioner, clarifier and summarizer. Your role may change in the subsequent days.
- Each student in a group should work on the content by playing their designated role. However, the students can take help of their group members if they find any difficulty.
- You can refer to dictionary to find meaning of words while reading or composing or can consult your textbooks also for word meanings.
- When you have questions, first ask in a group before asking the teacher.
- Don't delay in clearing your doubts.

DISCUSSION OF THE LESSON

Teacher discussed all the steps of prediction, questioning, clarify and summarize in the worksheet. Some of generated answers and difficult words were written by teacher on blackboard and clarified the doubts. Thereafter teacher asked the students to speak whatever they have written about summary and modified their responses wherever necessary.

REVIEW

The feedback was taken from students verbally after every class and at the end of the treatment to perceive their attitude towards the reciprocal teaching as a strategy.

Conducting Formative Test

To monitor the instructional program, after covering a lesson in about 3 or 4 days, a formative test corresponding to each chapter was conducted. During that time, students were not allowed to work together. In total, 10 formative tests were administered.

For Control Group

The control group was taught through conventional chalk and talk method.

Phase 3: Administration of the post-test

At the end of the instructional treatment, both the experimental and control groups were administered the same vocabulary attainment tool. Scoring was done and post-test scores were obtained.

Analysis of Variance for Mean Gain Scores of Vocabulary Attainment

After scoring, the difference in scores as measured by the difference of post-test and pre-test scores on vocabulary attainment was calculated for each student. The obtained differences scores were subjected to analysis of variance (Table 1 and Figure 1).

The Table 2 reveals that F ratio was found to be 17.51 with $p < 0.05$ indicating that there exists a significant difference among the mean gain scores of two groups taught through different methods on vocabulary attainment. The examination of means indicates that students when exposed to reciprocal teaching method resulted in enhancement of vocabulary attainment than students when taught through conventional method. Reciprocal teaching resulted in improvement of vocabulary attainment of

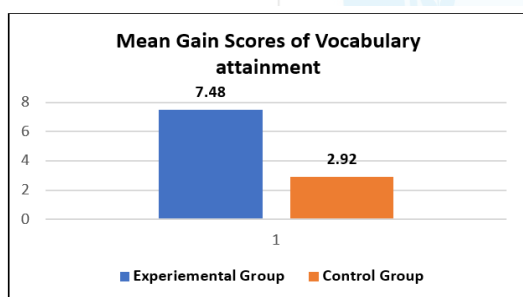


Figure 1: Bar diagram showing mean gain scores on vocabulary attainment for two different groups

Table 1: Means and SDs of mean scores of vocabulary attainment for experimental and control groups

		Pre-test	Post-test	Gain scores
Experimental group	Mean	18.89	26.37	7.48
	N	50	50	50
	SD	7.08	7.96	5.65
Control group	Mean	18.02	20.94	2.92
	N	50	50	50
	SD	7.17	7.43	4.47
Total	Mean	18.45	23.65	5.20
	N	100	100	100
	SD	7.12	7.70	5.09

Table 2: Summary of one-way ANOVA on mean gain scores of vocabulary attainment

Vocabulary attainment	Sum of squares	Df	Mean square	F	Level of significance
Between groups	392.25	1	392.25	17.51	p<.05
Within groups	2195.56	98	22.40		
Total	2587.81	99			

students who are low achievers in English than those who were taught by conventional method. The results are in consonance with previous studies (Silverman 2005; Haug, 2010; Mandel, Osana & Venkatesh, 2013; Bonga & Wolde-Mariam, 2014).

CONCLUSION

Reciprocal teaching flips the classroom by putting students in the driver's seat. The lesson proceeds in small chunks and the student can focus on comprehension and learning new vocabulary along with learning new information. The reciprocal teaching strategies can be used individually or in groups. In groups the elements of cooperative learning also get integrated. Reciprocal teaching can be used in combination with computer assisted learning or mobile learning as the literature has shown positive results with theses as far as usage of words in different context is concerned. Along with using intervention strategies in the classroom, students should also be encouraged to read the content other than their text books like newspaper, stories as extensive reading helps in vocabulary enrichment.

REFERENCES

- Abraham, L. B. (2008). Computer-mediated glosses in second language reading comprehension and vocabulary learning: A meta-analysis. *Computer Assisted Language Learning*, 21(3), 199-226.
- Allen, V. F. (1983). *Techniques in teaching vocabulary*. Oxford University Press.
- Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, 3(3), 21-34.
- Arcila-Knortz, C. (2015). The relationship among ESOL services, vocabulary, and reading comprehension in primary grades [Doctoral dissertation, Walden University]. ProQuest Dissertations and Theses database. <http://search.proquest.com/docview/1708646988?accountid=28367>
- Bonga, G. B., & Wolde-Mariam, G. S. (2014). Vocabulary learning strategies used by EFL students: The case of 11th grade high and low achievers at Jorgo Nole preparatory school. *Ethiopian Journal of Education and Sciences*, 9(2), 17- 33.
- Cain, K., Oakhill, J. V., & Elbro, C. (2003). The ability to learn new word meanings from context by school-age children with and without language comprehension difficulties. *Journal of child language*, 30(3), 681-694.
- Carbo, M. (2007). *Becoming a great teacher of reading*. Corwin Press and National Association of Elementary School Principals.
- Cavalli, E., Casalis, S., El Ahmadi, A., Zira, M., Poracchia-George, F., & Cole, P. (2016). Vocabulary skills are well developed in university students with dyslexia: Evidence from multiple case studies. *Research in Developmental Disabilities*, 51, 89-102.
- Clark, E. (1993). *The lexicon in acquisition*. Cambridge University Press.
- Deng, Q. (2016). The effect of a self-regulated vocabulary intervention on word knowledge, reading comprehension, and self-regulated learning for elementary English language learners [Doctoral



- dissertation, Nebraska University]. ProQuest Dissertations & Theses Database. <http://search.proquest.com/docview/1786671927/12DF9CA3C8C24134PQ/1?accountid=28367>
- Ghorbani, M. R., Gangeraj, A. A., & Alavi, S. Z. (2013). Reciprocal teaching of comprehension strategies improves EFL learners' writing ability. *Current Issues in Education*, 16(1). <http://cie.asu.edu/ojs/index.php/cieatasu/article/viewArticle/1046>
- Gray, J. L. (2012). The relationships between teacher variables and outcomes for language minority learners in grades 3-5 on measures of vocabulary knowledge and reading comprehension [Doctoral dissertation, Maryland University]. ProQuest Dissertations & Theses. <http://search.proquest.com/docview/1198537160/B54755D12614E62PQ/1?accountid=28367>
- Haug, J. J. (2010). A summer literacy intervention for struggling readers at the middle school level using strategies in comprehension, fluency, vocabulary, and positive school climate to improve reading comprehension: An evaluation study [Doctoral dissertation, Lindenwood University]. ProQuest Dissertations and Theses database. <http://search.proquest.com/openview/56556bf96e6f1973fff9a2c95bc93645/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Huntsinger, C. S., Jose, P. E., Larson, S. L., Balsink Krieg, D., & Shaligram, C. (2000). Mathematics, vocabulary, and reading development in Chinese American and European American children over the primary school years. *Journal of Educational Psychology*, 92(4), 745-760. <http://dx.doi.org/10.1037/0022-0663.92.4.745>
- Ismail, H. N., Ahmadi, M. R., & Gilakjani, A. P. (2012). The role of reciprocal teaching strategy as an important factor of improving reading motivation. *Elixir Educational Technology*, 53, 11, 836-841.
- Kassem, M. A. M. (2018). The effect of a suggested in-service teacher training program based on MALL applications on developing EFL students' vocabulary acquisition. *Journal of Language Teaching and Research*, 9(2), 250-260.
- Kharaghani, N., & Ghonsooly, B. (2015). The impact of vocabulary knowledge on reading comprehension ability of Iranian English learners receiving reciprocal teaching and cooperative grouping intervention program. *International Journal of Research Studies in Education*, 4(3), 47-56.
- Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The Modern Language Journal*, 73(4), 440- 464.
- Kumar, J. (2018). Effect of reciprocal teaching on reading comprehension, English self-efficacy and vocabulary attainment of low achievers in English. [Doctoral Dissertation, Panjab University, Chandigarh]. Panjab University – Shodhganga - INFLIBNET Centre.
- Nation, P., & Waring, R. (1997). Vocabulary size, text coverage and word lists. *Vocabulary: Description, acquisition and pedagogy*, 14, 6-19.
- Mandel, E., Osana, H. P., & Venkatesh, V. (2013). Addressing the effects of reciprocal teaching on the receptive and expressive Vocabulary of 1st- grade students. *Journal of Research in Childhood Education*, 27(4), 407-426.
- Manzo, A. V., Manzo, U. C. & Thomas, M. M. (2006). Rationale for systematic vocabulary development: Antidote for state mandates. *Journal of Adolescent & Adult Literacy*, 49(7), 610-619.
- Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-Based strategies for improving student achievement*. Association for Supervision and Curriculum Development.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- Palinscar, A. S., Brown, A. L., & Martin, S. M. (1987). Peer interaction in reading comprehension instruction. *Educational Psychologist*, 22(3-4), 231-253.
- Palinscar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension fostering and comprehension-monitoring activities. *Cognition and Instruction*, 1(2), 117-175.
- Pilonieta, P., & Medina, A. L. (2009). Reciprocal teaching for the primary grades: We can do it, too. *The Reading Teacher*, 63(2), 120-129.
- Qian, D. (1999). Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension. *Canadian Modern Language Review*, 56(2), 282-308.
- Reichenberg, M., & Kent, L. A. (2014). An intervention study in grade 3 based upon reciprocal teaching. *Journal of Education and Learning*, 8(2), 122-131.
- Richards, J. C., & Schmidt, R. W. (2013). *Longman dictionary of language teaching and applied linguistics*. Routledge.
- Rupley, W. H., Logan, J. W., & Nichols, W. D. (1998). Vocabulary instruction in a balanced reading program. *The Reading Teacher*, 52(4), 336-346.
- Silverman, R. D. (2005). Teaching words to young children: Investigating the effectiveness of early vocabulary instruction during read-aloud. [Doctoral dissertation, Harvard University]. ProQuest Dissertations and Theses data base <http://search.proquest.com/docview/305008152/6AE0FFC1D29140EFPQ/1?accountid=28367>
- Snow, C. E., Burns, M. S. & Griffin, P. (eds.) (1998). *Preventing reading difficulties in young children*. National Academy Press.
- Tozcu, A., & Coady, J. (2004). Successful learning of frequent vocabulary through CALL also benefits reading comprehension and speed. *Computer assisted language learning*, 17(5), 473-495.
- Wardani, Y. S. (2016). Improving students' reading comprehension by implementing reciprocal teaching: A classroom action research in eleventh grade of SMA Negeri 6 Surakarta in the academic year of 2014/2015 [Doctoral dissertation, Universitas Sebelas Maret]. ProQuest Dissertations and Theses database.
- Webb, S. (2008). Receptive and productive vocabulary sizes of L2 learners. *Studies in Second language acquisition*, 30(1), 79-95.