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An Investigation of Secondary School Students' Written Vocabulary

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ABSTRACT

A majority of the studies in language education are designed to measure students' vocabulary size. Thus, they point to the fact that children receive education that focuses on language and comprehension tools, and content materials are taught and tested. Experiments have been conducted to determine the effect of vocabulary size on the performance of linguistic skills in Turkey and confirmed that vocabulary size affects reading and listening comprehension. This paper uses causal comparison scanning, which investigates the causes and effects of the difference between specific groups and how much a dependent variable is affected by an independent variable. The population of this research is seventh and eighth grade students in the city of Istanbul. Socioeconomic variables were considered in the selection of the sample. There are 151 seventh graders and 102 eight graders. The results of the analyses indicate that the students in the sample have significantly different vocabulary assets depending on their SES, gender, reading habit, and reading frequencies variables. The analysis conducted to find the effect of the grade variable shows that the only significant difference is in favour of the seventh grade students' total word count. Overall, it is reasonable to argue that male students, socioeconomically disadvantaged students and students who do not have reading habits need more support in vocabulary teaching.. Since vocabulary teaching is not systematically planned in Turkey, educational planners should consider doing so. Finally, research should be conducted to improve vocabulary teaching and test the effectiveness of new educational programs and practices.

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Keywords:
Vocabulary, word knowledge, word frequency, written expression.

Introduction

A majority of the studies in language education are designed to measure the students' vocabulary size. Language and language comprehension are two of the fundamental topics of psychology. Hayes, Blackledge and Holmes (2001) argue that people, by analogy, swim in a context of speaking, listening, planning and thought. Similarly, Ashcraft (2002) claims that language is a symbolic system that consists of linguistic units, phonemes that make up words and other meaningful units that represent or symbolize the reminders of words. Ashcraft (2002) cites William James' definition: "Language is a system of signs, different from the things signified, but able to suggest them" (The Principles of Psychology, James 1890 as cited by Ashcraft, 2002: 347). According to Ashcraft (2002), psycholinguistics, which focuses on the nature and structure of language, illuminates many mysterious points in the relationship between language and human cognition in language acquisition, as well as language production and comprehension. Thus, a new branch of psycholinguistics emerged to investigates how language is learnt and used by people (347-353).

Hayes et al. (2001) tackle the problem of language and comprehension in an attempt to develop an alternative to the behaviourist model. They point to the fact that children receive education that focuses on language and comprehension tools, and content materials are taught and tested. On the other hand, it is fact that language comprehension is not fully understood. Comprehension, or understanding, can only be

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indirectly observed (Johnston, 1984). These difficulties are stated by Hayes et al. (2001) describe these difficulties: "If you ask an ordinary psychologist (or the ones interested in comprehension) what a word is, they will most probably give a short list of them or use their near synonyms, such as 'symbol' or 'representation.' Ask them what idea is and you will probably hear another word list, more synonyms or what they are thinking about at that moment." Furthermore, Hayes et al. (2001) argue that a scientist can explain how words are processed in the brain by referring to stimulant control and the motivational component, but it is more practical for the same scientist to explain what a word is or if there is such a thing as a word.

It is impossible to completely avoid such questions. The most typical evaluation of language and comprehension emphasizes that words represent ideas. This makes it undeniably true that vocabulary is a valuable output of comprehension growth. Vocabulary size also summarizes semantic comprehension, which is difficult to detect even with far-reaching techniques. For instance, internalizing the strategies to analyze verbal complexities is seen as a sign of development (Malvern, Richards, Chipere & Durán, 2004). Therefore, educational practices should improve children's and students' academic skills and educate them to be responsible individuals who can meet society's needs. These practices should also enable them to have the same literacy levels as their peers in other countries. This should also be supported by observation and evaluation studies to evaluate the students' progress accurately. It is known that students show better comprehension growth when they have increased awareness of word recognition, reading speed, reading comprehension, vocabulary size and fluency in silent reading. For example, due to an awareness of the distinction between German and Latin, the Latinate origin words in English are seen as a sign of the standard language used by more educated individuals (Barber, 2000; Hughes, 2000).

The size of a person's vocabulary is regarded as the indicator of that person's reading comprehension skill (Buzan, 2003:187) and has been studied extensively over the years. To better understand how vocabulary teaching is conducted in classes, we should look into a very old tradition that dates back to 1800s, namely anthologies. We are interested in the questions the students were asked after they read the anthologies. We can use the teachers' feedback and their ideas to improve textbooks. Gates & Ayer (1933) reports that correct coding and effective fluency were highly regarded and there were some consistent sequences. In the late 1800s some authors wrote tips to help students study and vocabulary and sentence lists that should be learned. Others wrote questions to be used in debates or examinations. For example, in 1912, some publishers released a daily lesson plan book that presented words and measurement tools to announce and discuss the election results. The editor of Elson Readers, Scott Foresman, published the teacher's manual that gave the answer to the questions in the student's books from 1909 to 1930. Similarly, William S. Gray, famous for one of the first standardized tests, The Gray Oral Reading Test, (Thorndike, 1914), became popular in this period. The Fundamental Curriculum Foundation series was published with the cooperation of Gray and Elson. The most famous book in the series was *Dick and Jane*, which was actually Elson's creation. Most impressively, these books laid the foundation of reading classes for over forty years, from the early 1930s to the late 60s (Hoffman & Pearson, 2015).

Experiments have been conducted to determine the effect of vocabulary size on the performance of linguistic skills in Turkey (Karadağ, 2005; Aksan, 2002; Baş, 2006; Temur, 2006; Kurudayıoğlu, 2005; Tosunoğlu, 1999; Çıplak, 2005; İnce, 2007; Cesur, 2005; Ünsal, 2005) and elsewhere (Perkins, 1982; Blachowicz et al., 2005). These studies confirm that vocabulary size affects reading and listening comprehension. Özbay, Büyükikiz and Uyar (2011) claim this is because the amount of words available to students directly affect their reading comprehension.

According to Yiğittürk, (2005), words are the fabric of a language and the building blocks of familiarity with languages. There are several names used to refer to word stores in the human mind. However, Baş (2006) argues that those names do not actually differ from one another. He reports that the major names used are vocabulary, lexicon and vocabulary assets. However, Özbay et al. (2011) argue that lexicon is different from the other namings since it includes vocabulary itself, proverbs, idioms, reduplications and function words. This is also supported by Aksan (2002: 13-14) and Baş (2006:103-105). In other words, lexicon stores all words in a language, or the entire vocabulary of a community.

Method

Model

This paper uses causal comparison scanning, which investigates the causes and effects of differences between specific groups and how much a dependent variable is affected by an independent variable (Fraenkel, Wallen and Hyun, 2011; Lodico, Spaulding and Voegtle, 2006).

Population and Sample

The population of this research is seventh and eighth grade students in the city of İstanbul. Socioeconomic variables were considered in the selection of the sample, so the data were collected from schools located in districts with differing socioeconomic conditions.

Seventh and eight grade classes were randomly selected for data collection. Of the students in the sample, 87 belong to the lower socioeconomic status (SES), while 89 are from the middle socioeconomic status and 77 students study in the upper socioeconomic status. Of them,160 are female, and 93 are male. There are 151 seventh graders and 102 eight graders.

Tools

Two different tools were used to collect data. One is the personal data collection forms designed to collect the students' demographic data, for instance their grade and gender. The other is the collection of texts written by the students. The topics for the essays were selected from textbooks the students had used the previous year. Turkish language education experts chose five essay topics for the students.

Process and Data Analysis

The data were collected in a single session in forty minutes. The data were analyzed initially with Simple Concordance version 4.07 and later with SPSS 15.0. In the first stage of the analysis, the texts were imported to the software and prepared for analysis, using the methods of Özbay et al. (2011):

> We put a plus sign (+) sign between compound words, reduplications, idioms, proverbs, job names and proper nouns (Mustafa+Kemal+Atatürk, take+a+look, inch+by+inch, open+buffet) so that the software would analyze them as single words. Proverbs, idioms, compound words were checked against the online versions of the Spell Checker, Modern Turkish Dictionary and the Dictionary of Idioms and Proverbs of the Turkish Language Institute. Verbs stems were selected by deleting the inflectional affixes, infinitive affixes, gerund and converb affixes, and the negative affixes. We also deleted the conjunctive ile 'with', the conditional ise 'if' and the peripheristic past tense marker 'idi' since they belong to the closed class. Finally, numbers and abbreviations were analyzed as single words since they represent a single concept (p. 156).

After thus preparing the data, the analysis was also conducted using the methods of Özbay et al. (2011):

> After the vocabulary items were processed, each essay was analyzed with Simple Concordance. The number of the words each student used only once, the number of the different words used in the essay and their total number was calculated. These numbers and the demographic data of the candidate teachers were imported to SPSS 15 package programme in the second stage of the data analysis. Non-parametric tests were used in the second stage since the word counts candidate teachers' texts were not continuous data (p. 156).

Mann-Whitney U and Kruskal-Wallis test were used to find out if the number of the words the students use varies by SES, gender, grade, reading habits and frequency.

Findings

Vocabulary and SES

This study found that the number of words used once in the essays of seventh and eighth graders changes significantly with SES [$X2\ (2)=17.693$; $p<.05$]. The Mann-Whitney U test was used to find which groups differed, and the results indicate that the number of the words used once by the students in the lower SES was statistically significantly fewer than those used by the students in the upper SES.

Similarly, it found that the number of different words used by the seventh and eighth grade students in essays changes significantly with SES [X2 (2)=18.810; p<.05]. The Mann-Whitney U test was used to find which groups differed, and the results also indicate that lower SES seventh and eighth graders used significantly fewer different words than the students in the upper SES.

Table 1. The Kruskal-Wallis test of whether the students' vocabulary assets in essays vary by SES

	SES Groups	n	Mean rank	df	X^2	P	Sig. diff.
Words Used Once	Lower SES	87	100.91	2	17.693	.000*	1-3
	Middle SES	89	135.88				
	Upper SES	77	146.21				
Different Words	Lower SES	87	101.01	2	18.810	.000*	1-3
	Middle SES	89	133.02				
	Upper SES	77	149.41				
Total Words	Lower SES	87	105.21	2	13.585	.001*	1-3
	Middle SES	89	131.28				
	Upper SES	77	146.68				

* p<.05

Finally, the number of different words used in essays by the seventh and eighth grade students was found to change significantly with SES [$X^2_{(2)}$=17.693; p<.05]. The Mann-Whitney U test shows that the total number of the words used by the students in the lower SES was significantly lower than the upper SES's totals.

Vocabulary and Gender

Table 2. The Kruskal-Wallis test of whether the students' vocabulary assets in essays vary by gender

	Gender	n	Mean Rank	Sum of Ranks	U	p
Words Used Once	Female	160	132.74	21239.00	6521.00	.101
	Male	93	117.12	10892.00		
Different Words	Female	160	135.89	21742.00	6018.00	.011*
	Male	93	111.71	10389.00		
Total Words	Female	160	137.94	22070.00	5690.00	.002*
	Male	93	108.18	10061.00		

* p<.05

The analysis found that the number of words used by the seventh and eighth grade students does not vary by gender [U=6521.00; p>0.05]. On the other hand, the number of different words the students used in the essays changed significantly with the gender variable [U=16018.00; p<0.05]. The mean ranks in Table 2 shows that the number of different words used by female students (132.74) is higher than that of male students (117.12).

As Table 2 shows, the total number of words used by the students varies significantly by gender [U=5690.00; p<0.05]. When mean ranks are considered, we see that the total number of words female students use (137.94) is higher than that of male students (108.18).

Vocabulary and Grade

The data indicate that there is no significant difference between the number of words used once by the seventh grade and eighth grade students [U=7244.00; p>0.05]. Likewise, there is no significant difference between the number of different words used by the seventh grade and eighth grade students [U=7538.00; p>0.05].

However, it was found that the number of total words used by the students changes significantly with the grade variable [U=6392.50; p<0.05]. The mean ranks show that seventh grade students use an average of 135.67 words, while the eighth grade students use an average of 114.17 words.

Table 3. The Mann-Whitney test of whether the students' vocabulary assets in essays vary by grade

	Grade	n	Mean Rank	Sum of Ranks	U	p
Words Used Once	7th grade	151	123,97	18720,00	7244,00	,423
	8th grade	102	131,48	13411,00		
Different Words	7th grade	151	128,08	19340,00	7538,00	,775
	8th grade	102	125,40	12791,00		
Total Words	7th grade	151	135,67	20485,50	6392,50	,022
	8th grade	102	114,17	11645,50		

* p<.05

Vocabulary and the Reading Habit Variable

Table 4. The Mann-Whitney test of whether the students' vocabulary assets in essays vary by the reading habit variable

	Reading Habit	n	Mean Rank	Sum of Ranks	U	p
Words Used Once	Reads	230	131.75	30302.50	1552.50	.001*
	Doesn't read	23	79.50	1828.50		
Different Words	Reads	230	132.09	30380.50	1474.50	.000*
	Doesn't read	23	76.11	1750.50		
Total Words	Reads	230	131.20	30176.00	1679.00	.004*
	Doesn't read	23	85.00	1955.00		

* p<.05

There is a significant difference between the secondary school students who have the habit of reading and the students who do not regarding the number of the words used once [U=1552.50; p<0.05]. The data indicate that the students who read use more words than those who do not. Regarding the mean ranks, the students who say they have a reading habit use 131.75 words once, while those who do not use 79.50 words once.

Similarly, the number of different words used by the students who claim to have a reading habit is higher than those of the students who do not [U=1474.50; p<0.05; mean ranks: 132.09 and 76.11].

We see in the data that the total number of words used by the students in their essays depends on their reading habits, too [U=1679.00; p<0.05]. Mean ranks indicate that the students who read regularly have a higher number of total words (131.20) than the students who do not (85.00).

Vocabulary and the Reading Frequency Variable

The data reveals that the number of words used once by the students in the seventh and eighth grades changes significantly with their reading habits [X2 (4)=19.630; p<.05]. The Mann-Whitney U test was applied to determine which groups performed differently. The mean ranks indicate that the students who never read use significantly fewer words once than the students who read once a week or once a month.

Similarly, the number of different words the seventh and eighth grade students use in their essays significantly changes with the reading frequency variable [X2 (2)=18.810; p<.05]. The Mann-Whitney test was applied to find out which groups performed differently. According to the results, the students who never read use significantly fewer words in their essays than the students who claim they read every day or once a week.

Table 5. The Kruskal-Wallis test of whether the students' vocabulary assets in essays vary by the reading frequency variable

	Reading Frequency	n	Mean rank	df	X^2	P	Sig. diff.
Words Used Once	Never	23	83.11	4	19.630	.001*	1-4 1-5
	Every day	98	136.71				
	Once in a few days	83	112.68				
	Once a week	23	144.41				
	Once a month	26	159.52				
Different Words	Never	23	77.78	4	17.602	.001*	1-2 1-4 1-5
	Every day	98	139.38				
	Once in a few days	83	116.16				
	Once a week	23	142.72				
	Once a month	26	144.58				
Total Words	Never	23	80.80	4	14.079	.007*	1-2
	Every day	98	141.77				
	Once in a few days	83	124.72				
	Once a week	23	132.28				
	Once a month	26	114.83				

* $p<.05$

Finally, this study shows that the total number of words the seventh and eighth grade students use in their essays significantly changes with the reading frequency variable [X2 (2)=17.693; $p<.05$]. The results of the Mann-Whitney U point out that the mean ranks of the students who never read are significantly lower in total number of words in their essays than the students who claim to read every day.

Result and Discussion

This study tries to find out whether the vocabulary assets of seventh and eighth grade students in their essays depend on a set of variables. Although the results are comparable with similar studies regarding age and methods, they also include different grade levels. We set out to answer this question: Are the vocabulary assets of seventh and eighth grade students affected by a set of five variables? In other words, this study does not only aim to measure the students' vocabulary assets. Indeed, it is not quite possible to measure their vocabulary assets with our methodology.

The results of analyses indicate that the students in the sample have significantly different vocabulary assets depending on their SES. It seems that the students in the districts representing the upper strata use more words once, more different words and more total words than the students in the districts representing lower SES. Other studies conducted in Turkey have found similar variation by SES (Çıplak, 2005; İpekçi, 2005; Özbay et al., 2011; Ünsal, 2005).

For example, Özbay et al. (2011) find that the students studying in the upper socioeconomic districts use more words in their essays, as confirmed here. Furthermore, Cartmill et al. (2013) find that families, who are an important source of input for children, have different vocabulary assets depending on their SES. Hoff-Ginsberg (1991) and Hoff (2003) state that the families in the lower SES offer less vocabulary input than the families in the upper SES. Graves, Brunetti and Slater (1982, as cited in Manzo and Manzo 2008) note that the children in the lower SES have vocabulary assets that are half as much as the vocabulary assets of children in the upper SES. Similarly, White, Graves and Slater (1990) find that the children in the (economically) disadvantaged groups have relatively limited lexicons.

We see in the data collected here that gender also affects the amount of words students use in their essays. The analysis reveals that female students use more different words and more total words than male students. On the other hand, the gender variable does not seem to affect the amount of words used once. The

conclusion that female students in Turkey use more words both in their essays and in verbal communication has been confirmed by Cesur (2005), İnce (2007), Özbay et al. (2011) and Ünsal (2005). Similar studies in other countries point to the same result. Hyde and Linn (1988) scanned 165 different studies and found that female students have slightly better vocabularies than male students with an influence quantity of 0.02. In addition, Anderson et al. determined that there is significant difference in favour of female students between the productive vocabulary sizes of toddlers between 18 and 24 months. All in all, many studies confirm that girls have better verbal skills and larger lexicons than boys (Çetinkaya, 2011; Temur, 2006). When these results are combined, we see that the findings of this study match those of other studies in the literature.

The analysis conducted to find the effect of the grade variable shows that the only significant difference is in favour of the seventh grade students' total word count. As a matter of fact, this is an unexpected finding. Students are expected know more words and use them in verbal and written communication in the eighth grade. Research indicates that vocabulary expands as grade level rises and does so most in the first few years of primary school (White et al. 1990).

The fact that there is no significant difference between the total word count of the seventh and eighth grades students hints that the difference in the total word counts could be interpreted as specific to this study. The decline in the word count difference in the higher grade could explain the lack of a significant difference between the words used once and the different words used. White et al. (1990) also found a decline in word count difference from 20% to 4% in the fourth grade.

Reading habit was included as a variable. The data indicate that students in the habit of reading regularly perform better in all parameters. Cesur (2005) reaches a similar conclusion. Furthermore, other studies in the field show that reading habits expand reader's lexicons. Specifically, Allen (1999), Cesur (2005) Nelson & Stage (2007) contend that reading is one of the key elements of vocabulary learning. Hence, we can conclude that the results obtained in this study are compatible with the results in the literature.

The analysis conducted to find the effect of reading habits show that the students who say they lack a reading habit use fewer words that those who read every day, once a week or once a month. Since reading exposes the students to an increased number of words, it is expected that word count increases with reading habits. This study's results justify these assumptions.

Overall, it is reasonable to argue that male students, socioeconomically disadvantaged students and students who do not have reading habits need more support in vocabulary teaching. Additionally, it could help to encourage these students to use new words to express themselves. Since vocabulary teaching is not systematically planned in Turkey, educational planners should dwell on vocabulary teaching. Finally, research should be conducted to improve vocabulary teaching and test the effectiveness of new educational programs and practices.

References

Aksan, D. (1996). *Türkçenin sözvarlığı*, Ankara: Engin Yayınevi.

Aksan, D. (2002). *Anadilimizin söz denizinde*, Ankara: Bilgi Yayınevi.

Allen, J. (1999). *Words, words, words : teaching vocabulary in grades 4–12*. USA: Stanhouse Publishers.

Andersson, I., Gauding, J., Graca, A., Holm, K., Öhlin, L., Marklund, U. et al. (2011). Productive vocabulary size development in children aged 18-24 months-gender differences. In *Proceedings from Fonetic* (pp. 109-112).

Ashcraft, M.H. (2002). *Cognition* (3rd Ed.). NJ: Prentice Hall.

Barber, C. (2000). *The English language: A historical introduction*. Cambridge, England: Cambridge

Baş, B. (2006). *1985-2005 yılları arasında çocuk edebiyatı sahasında yazılmış tahkiyeli metinlerin söz varlığı üzerine bir araştırma.* Yayımlanmamış doktora tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Blachowicz, C. L. Z.; Fisher, P. J., & Watts-Taffe, S. (2005). *Integrated vocabulary instruction: Meeting the needs of diverse learners in grades K?5* Learning Point Associates/North Central Regional Educational Laboratory

Buzan Tony. (2003). *Hızlı okuma*. (H. Güldü, Çev.). İstanbul: Alfa Yayınları.

Cartmill, E. A., Armstrong, B. F., Gleitman, L. R., Goldin-Meadow, S., Medina, T. N., & Trueswell, J. C. (2013). Quality of early parent input predicts child vocabulary 3 years later. *Proceedings of the National Academy of Sciences*, 110 (28), 11278-11283.

Cesur, O. (2005). *Pansiyonlu ilköğretim okulu öğrencileri üzerinde kelime serveti araştırması*. Yayımlanmamış yüksek lisans tezi. Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü, Bolu.

Çetinkaya, Ç. (2011). *İlköğretim 4 ve 5. sınıf öğrencilerinin kelime kullanım sıklıkları üzerine bir araştırma*. Yayımlanmamış doktora tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Çıplak, M. (2005). *Uşak Merkez İlköğretim 5., 8. ve 11. Sınıfların Yazılı Kelime Hazinesinin Belirlenmesi*. Yayımlanmamış yüksek lisans tezi. Afyon Kocatepe Üniversitesi Sosyal Bilimler Enstitüsü, Afyon.

Fraenkel, J.R., Wallen N.E., & Hyun, H.H. (2011). *How to design and evaluate research in education* (8'th Ed.). New York: McGraw-Hill.

Gates, A. I. & Ayer, J. Y. (1933). *Golden leaves*. New York: Macmilllan.

Hayes, Blackledge ve Holmes (2001). *Relational frame theory: A post-skinnerian account of human language and cognition*. Edited by Hayes et al., Kluwer Academic Plenum Publishers, New York, 2001.

Hoff, E. (2003) The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, 74(5), 1368-1378. doi:10.1111/1467-8624.00612.

Hoff-Ginsberg, E. (1991) Mother-child conversation in different social classes and communicative settings. *Child Development.* 62(4), 782-796. doi: 10.2307/1131177.

Hoffman, J. V., & Pearson, P. D. (2015). Teachers or programs? A historical perspective on where trust placed in teaching reading. In P. D. Pearson, & E. H. Hiebert (Eds), *Research-based practices for teaching common core literacy,* (pp.237-257). New York, NY: Teachers College Press

Hughes, G. (2000). *A history of English words*. Oxford, England: Blackwell.

Hyde, J. S., & Linn, M. C. (1988). Gender differences in verbal ability: A meta-analysis. *Psychological Bulletin*, 104(1), 53-69.

İnce, H. G. (2007). *İlköğretim 6. sınıf öğrencilerinin taşıdıkları sosyo-kültürel özellikler ile kelime hazinelerinin ilişkisi*. III. Sosyal Bilimler Eğitimi Kongresi. (18-20 Haziran Adana).

İpekçi, A. (2005). *İlköğretim yedinci sınıf öğrencilerinin kelime serveti üzerine bir araştırma.* Yayımlanmamış yüksek lisans tezi. Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü, Bolu.

Johnston,P. H.(1984). Assessment in reading. In P. D. Pearson (Ed.), *Handbook of reading research*. New York: Longman.

Kurudayıoğlu, M. (2005). *İlköğretim II. kademe örgencilerinin kelime hazinesi üzerine bir araştırma*. Yayımlanmamış doktora tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Lodico, M.G., Spaulding, D. T., & Voegtle, K. H. (2006). *Methods in educational research : From theory to practice.* San Francisco: Jossey-Bass.

Malvern, D. D., Richards, B. J., Chipere, N., & Durán, P. (2004). *Lexical diversity and language development: Quantification and assessment*. New York: Palgrave Macmillan.

Manzo, U. C., & Manzo, A. V. (2008). Teaching vocabulary-learnin strategies: Word consciousness, word connection, and word prediction. In A. E. Farstrup & S. J. Samuels (Eds), *What research has to say about vocabulary instruction*, (pp, 80-105) Newark, DE: International Reading Instruction.

Nelson, J. R., & Stage, S. A. (2007). Fostering the development of vocabulary knowledge and reading comprehension though contextually-based multiple meaning vocabulary instruction. *Education and Treatment of Children 30*(1), 1-22.

Özbay, M., Büyükikiz, K. K. ve Uyar, Y. (2011). İlköğretim yedinci sınıf öğrencilerinin yazılı anlatımlarındaki kelime hazineleri üzerine bir inceleme. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 8 (15), 149-173.

Perkins, P. G. (1982). *Decoding skill and vocabulary knowledge in reading comprehension*, Florida: The University Press.

Temur, T. (2006). *İlköğretim 4 ve 5. sınıf öğrencilerinin yazı dilindeki kelime hazinelerinin bazı değişkenler açısından incelenmesi*. Yayımlanmamış doktora tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Thorndike, E. I. (1914). The Measurement of ability in reading: Preliminary scales and tests: Introduction. *Teachers College Record*, 15(4), 1-2.

Tosunoğlu, M. (1999). Kelime servetinin eğitim öğretimdeki yeri ve önemi, *Milli Eğitim*, 144, 71-73.

Ünsal, H. (2005). *Afyon (merkez) ilköğretim 5., 8. ve ortaöğretim 11. sınıf öğrencilerinin konuşma becerisinde geçen aktif kelimelerin tespiti.* Yayınlanmamış yüksek lisans tezi. A.K.Ü. Sosyal Bilimler Enstitüsü, Afyon.

White, T. G., Graves, M. F., & Slater, W. H. (1990). Growth of reading vocabulary in diverse elementary schools: Decoding and word meaning. *Journal of Educational Psychology*, 82 (2), 281-290. doi: 10.1037/0022-0663.82.2.281.

Yiğittürk, H. (2005). *Ortaöğretim 9. sınıf öğrencilerinin kelime hazinesi üzerine bir araştırma*. Yayımlanmamış Yüksek lisans tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.