

Iraqi EFL University Students' Contextual Focus and Vocabulary Proficiency: A Correlational Study

Balqees Hameedi Kadhim¹, Shaymaa Abul Baqi Al-Bakri²

Abstract

The current study investigates the relationship between contextual focus and vocabulary proficiency among Iraqi EFL University students. To this end, a sample of 400 students from different Iraqi universities/colleges of education-English departments were selected randomly during the academic year (2021-2022) as a sample for this study. The participants were administered three instruments: a mode-shifting index to measure contextual focus. Two tests- one for receptive and the other for productive vocabulary knowledge- constitute a comprehensive framework for examining vocabulary proficiency. The study results indicate that Iraqi university students learning English as a foreign language possess a good level of contextual focus and that both variables, the contextual focus and vocabulary proficiency are significantly correlated.

Keywords: *Contextual Focus; Vocabulary Proficiency; creative thinking; vocabulary knowledge*

Introduction

According to Richards (2008), vocabulary knowledge is necessary for language mastery. Any proficient language user must be acquainted with the most frequently used words in that language. In other words, vocabulary development is crucial in learners' progression from primary to higher levels of language proficiency. In this regard, many researchers, such as Thornbury (2002), Bastanfar and Hashemi (2020), consider vocabulary items the backbones of language.

When a language learner knows a word, he knows its various aspects. According to Kersten (2010), learning a word involves associating its form with its meaning before storing it in the mental lexicon. This means a word is considered known if a student can demonstrate knowledge of its form and meaning. Nation (2013) took a further step; he proposed a division of vocabulary knowledge into two categories: receptive and productive. Learners' receptive knowledge refers to their ability to comprehend words in a second language while reading or listening (Nation, 2001). In other words, if an L2 student can identify and recall word meanings when spoken or written but cannot produce them, this indicates that this student has receptive vocabulary knowledge rather than productive. Defining productive vocabulary knowledge, on the other hand, means the capacity of an L2 learner to retrieve and use a word accurately. According to Dugan et al. (2004), word knowledge is divided into two categories: receptive and expressive. In this sense, the term 'expressive' refers to productive knowledge.

¹ Ph.D. Candidate, Ibn-Rushd English Department, College of Education for Human Sciences, Baghdad University, balqees.homadi1107b@ircoedu.uobaghdad.edu.iq

² Supervisor, Ibn-Rushd English Department, College of Education for Human Sciences, Baghdad University, Shaymaa.abdulbaqi@irecoedu.uobghdad.edu.iq

For Manan et al. (2016), vocabulary learning, especially for undergraduate EFL students, requires creating a more relaxed learning environment on the part of the instructors to stimulate students' vocabulary learning desire. Since language can shape thinking and different people have different thinking patterns (Jian et al., 2012), instructors can motivate their students by giving full play to their associative and analytic thinking combined with lexical characteristics. The two modes of thinking and the process of shifting between them can affect students' vocabulary memory (Liu, 2016). They can accurately grasp vocabulary features and improve vocabulary memory through full use of their associative and analytic abilities to form effective learning vocabulary networks drawing on a combination of sounds, forms and meanings' relations. Thus, a profound vocabulary memory can be created within the minds of learners, leading to the improvement of VP (Jiao, 2014)

However, the research questions are:

1. What are Iraqi EFL university students' contextual focus and vocabulary proficiency levels?
2. Is there a significant correlation between students' contextual focus and vocabulary proficiency?

After reviewing the literature, no study has explored the relationship between contextual focus and vocabulary proficiency. The current study aims to fill this gap effectively.

Literature Review

The Concept of Contextual Focus

The term CF, introduced to psychology by Gabora (2010), describes the tendency to shift between divergent and convergent thinking types (Goldschmidt, 2016). Although there is limited research on it, it has already been debated that CF is regarded as a distinguished feature of the modern human mind and is one of the pillars of our cultural evolution as a species (Gabora, 2013). Its development occurred because complex reasoning tasks involve multiple goal-directed tasks between the present and the goal state, like reformulating the initial problem and generating new operators to reach the newly defined goal state (Chrysikou, 2006).

Gabora and Smith (2018) define CF as a cognitive shift between an analytic mode of thought and an associative one. These two terms emphasise the difference between convergent thinking, a honing mode used for critical evaluation or interpretation of an outcome, and divergent thinking, used to generate it in the first place. Howard (2002) asserts the existence of a positive association between creativity and ease or efficiency with which one can shift between modes of thinking. This tendency to shift is sometimes called CF because it involves adapting to different situations or contexts and is influenced by confluence factors, both internal and external to the person (DiPalo & Gabora, 2009).

Characterising different modes of thought in terms of analytic and associative is also related to dual-process models of cognition, where cognition involves using explicit and implicit ways of processing information and learning (Evans & Frankish, 2009). Since the associative mode is considered an automatic mode of creative cognition which involves the processing of implicit information, whereas the analytic one is thought to involve conscious engagement and processing of explicit information (Louis & Sutton, 1991), therefore, creativity involves various processes and to be creative entails the ability to move between these different processes.

The Concept of Vocabulary Proficiency

In vocabulary acquisition research, many scholars have developed various criteria for defining and understanding vocabulary proficiency (Aitchison, 2003; Nation, 2001; Qian,

2002). For Richards (1976), students are proficient in L2 vocabulary if they demonstrate knowledge of the word's eight components: frequency, register, syntax, derivation, association, semantic features, and polysemy. This framework has been widely accepted as a general view for VP since it emphasises word knowledge's complex and multifaceted nature.

However, VP involves degrees of word knowledge from “just familiarity with the word to the ability to use it correctly in free production” (Laufer & Paribakht, 1998, p. 367). According to Read (2000), two contrasting dimensions of knowledge constitute VP: breadth and depth. The term ‘breadth of vocabulary knowledge’ is quantitative and is defined as the total number of words an individual knows and is often used to measure the student’s vocabulary size (Qian, 2002). Studies using this dimension include (Hazenberg & Hulstijn, 1996 and Schmitt, 1998). The depth of an individual’s vocabulary knowledge is directly related to the quality of vocabulary (Read, 1993). The student’s vocabulary depth is tested by examining various word relations, including synonymy and antonymy and collocational restrictions (Alfatle, 2016). Examples of studies that utilised this dimension are (Greidanus & Nienhuis, 2001; Nassaji, 2004; Webb, 2005).

In contemporary frameworks of lexical proficiency research, Nation (2013) define VP as the knowledge and competence a student has in comprehending and producing words, and it can be measured in terms of receptive and productive tests. In his article: “Teaching and Learning Vocabulary”, Nation (2005, p.584) lists the receptive and productive aspects of VP as illustrated in Table (1) below. These aspects are combined under three fundamental groups: form, meaning and use. The ‘form’ of a word requires knowing its spelling, sound and word parts. Whereas knowing a word’s meaning involves recognising its form-meaning relations, knowing what a word refers to, and identifying other words of related meaning associated with it. Finally, the knowledge of word’s use covers the grammar of words, encompassing parts of speech, collocations, and whether the word is formal or informal, polite or ruse, and has restrictions on its use.

Table (1) What is Involved in Knowing a Word? Taken from (Nation, 2005, p.584) Note: in Column 3, R= receptive knowledge, P= productive knowledge.

Form	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelt?
	Word parts	R	What parts are recognisable in this word?
		P	What word parts are needed to express the meaning?
Meaning	Form and meanings	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocation	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency, etc.)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

According to Nation’s framework, the students need a network of information regarding the form, meaning and use of every word to learn vocabulary effectively. Some researchers (Barcroft, 2009; Cobb, 1999; Laufer & Girsai, 2008) believe that receptive

knowledge is mastered before productive one, and it is twice the size of productive vocabulary (Schmitt, 2008). That is due to the relative complexity of the production process as opposed to the receptive one (Alfatle, 2016; Salih & Riyadh, 2022). Kamil (2022) state that having a large vocabulary size is fundamental for non-native English speakers at the university level to comprehend academic textbooks and complete academic tasks successfully. According to Schmitt (2000), the vocabulary needed for EFL/ESL university students comprises 2,000 of the most frequently used word families, which provides 95% coverage of essential oral communication and prepares for more advanced study (Schmitt, 2000, p.142). If this threshold is not met, students may have difficulty understanding the language they are exposed to (Nation,1993). Schmitt & Schmitt (2014) recommend increasing this threshold to include the 3,000 most commonly frequent English words- families. Read (2000) claims that English native speakers with university education typically possess a receptive size between 13,200 to 20,7000 base words (Read, 2000). Based on these statistics, it can be assumed that the typical vocabulary size required for individuals studying English as a foreign or a second language at the university level is approximately 17,000- word families.

Joint Influence of Contextual Focus and Vocabulary Proficiency

Any attempt to develop students' vocabulary calls for a broader perspective on the psychological, social, and intellectual perspectives, which directly or indirectly affect the vocabulary learning process. From the myriads of theoretically and operationally defined psychological variables, the creativity factor 'CF' is acknowledged to influence and shape the process of adult EFL learning substantially, particularly in the domain of word learning (Hollich et al., 2000; Yoshida & Benitez, 2010). Yoshida & Benitez (2010) have reported that individual differences in students' attentional processes can largely explain the variation of their performances in novel adjectives learning. The central claim is that faster and more efficient attention shifting helps students focus on the most relevant adjectives in different contexts.

Moreover, Hajilou et al. (2012) have found a strong correlation between creativity and receptive and productive vocabulary knowledge among Iranian EFL university students. That is, whenever students' levels of creativity increase, their active and passive vocabulary knowledge will also increase. Pringle & Sowden (2016) suggest that CF can be a learned skill since the process of shifting can be selectively increased in a practical setting that is particularly useful to shift, such as when EFL students engage in interactive learning activities, creative writing, presentations, and projects that enable them to practice both receptive and productive vocabularies at all levels of their creative thinking abilities.

Method

One of the critical decisions that a researcher should make is to select an appropriate design for research work. The descriptive design has been used as the most suitable one for studying the relationship between variables and revealing the difference between them to describe and analyse a phenomenon being studied (Gall et al., 2007). Correlational research is considered descriptive research because it involves gathering data to determine the extent to which a correlation between two or more variables may exist (Al-Bakri & Salman, 2020; Gay et al., 2009).

Sample

The present study sample consists of (400) EFL students randomly selected from three Iraqi universities: Baghdad, Wasit and Tikrit. (See Table 2).

Table 2 The Sample of the Study

Name of Iraqi Universities	Sample
Baghdad University College of Education/ Ibn Rushd for Human Science	100
Tikrit University College of Education for Human Sciences	143
Wasit University College of Education for Human Sciences	157
Total	400

Instruments

Three instruments have been used to achieve the present study's aims. The first one is the Mode Shifting Index (henceforth MSI), which has been adopted from Pringle and Sowden (2016) to discover the level of students in contextual focus. This instrument which is based on the definition and theory of Gabora (2010), consists of (14) items that are scored on a five-Likert scale that ranges from (1) completely false, (2) mainly false, (3) undecided, (4) mainly true, to (5) completely true. The scores participants get can range between 14-70, with higher scores indicating a higher level of contextual focus.

The second instrument, the receptive Vocabulary Size Test (VST), is created by Nation and Beglar (2007). It comprises 100 multiple-choice items in which a form-meaning link is made central without testing productive ability. Five items represent 1,000-word, 2,000-word frequency bands from Nation's frequency list (2006). Nation (2006) groups words in 20 bands of (1,000-words) each. The participants had to select the correct answer relying on their moderately developed comprehension of the word's meaning. Students will get one point for each correct answer, with a maximum score of 100. The total score must be multiplied by 200 to determine the participants' total size. Therefore, a score of 35 out of 100 means the student's size is 7,000-word families.

The Productive Vocabulary Levels Test (henceforth PVLT) Version 2 has been adopted from Nation & Laufer (1999) to measure students' productive vocabulary knowledge. In this standardised test, there are 18 lexical items chosen from each of the five sections: the 2,000; the 3,000; the 5,000 and the 10,000- word level, and the academic vocabulary level. The scoring pattern is to award (1) point for each correct item and (0) for the incorrect or no answer. Participants may be given a score between zero to 18 in each section. The maximum achievable score on the test is 90 points. Deciding whether a student has a satisfactory mastery of a level is a matter of judgement and depends on the level being considered. However, if a student scored around 15 or 16 out of 18 (85%-90%) for the 2,000-word level, then less than 150 words at that level can be challenging when trying to convey a message.

After ensuring the psychometric features, the study instruments are administered separately on the study sample on adjacent periods during the academic year 2021-2022.

Results

Arithmetic means, and standard deviation was calculated to determine Iraqi EFL university students' CF and VP levels. A t-test for one sample has been implemented to determine the difference between arithmetic and theoretical means. The manipulation of the collected data reveals that the participants have a good level of CF since the arithmetic mean score of (42.645) and a standard deviation of (3.959), while the theoretical mean is (42). The calculated t-value (3.258) is higher than the critical value (1.96). See Table 3.

Table 3 Arithmetic Mean, Standard Deviation, and T-test values of the MSI

Variable	N	Arithmetic Mean	SD	Theoretical Mean	T- Values		Level of Significance (0.05)	d.f
					Computed	Critical		
MSI	400	42.645	3.959	42	3.258	1.96	Significant	399

Regarding students' level of VP, results show that the arithmetic mean is (118.542) and the standard deviation is (17.891). A statistically significant difference is observed at (0.05) level of significance, as the computed t-value of (26.318) is higher than the critical one with (330) degrees of freedom. It can be inferred that Iraqi EFL university students possess a good level of VP.

Results also show a significant difference between the arithmetic and theoretical means of the samples' scores in VST and PVLТ, but in favour of the arithmetic means. Hence, it can be reported that the students have a good receptive and productive vocabulary knowledge since the computed t-values for VST and PVLТ are found to be (37.654, 12.921), respectively, which are higher than the critical one. See Table 4.

Table 4 The Arithmetic Mean, Standard Deviation, and T-values of VP

Variable	N	Arithmetic Mean	SD	Theoretical Mean	T-test Value		Level of Significance 0.05
					Computed	Critical	
VST	400	67.550	9.322	50	37.654	1.96	Significant
PVLТ		50.992	9.275	45	12.921		
VP		118.542	17.891	95	26.318		

The results are analysed further to identify the percentage of students' answers at each word-frequency level. It is found that the mean score decreases from (11.670) at the 2000-word level to (10.925) at the 3000-word level, to (10.120) at the 5000-word level, to (9.480) at the AWL, and finally to (8.797) at the 10.000-word level. The results show that the percentages of students' productive vocabulary knowledge for each frequency level are: 2000 L= 65%, 3000 L= 61%, 5000 L= 56%, Academic Level= 53%, and 10.000 L= 49%.

The Pearson correlation coefficient and T-test have been utilised to determine the correlation between CF and VP among Iraqi EFL university students to judge the significance of the computed correlation coefficients. It is found that the correlation coefficients between CF and (VST, PVLТ) are (0.840 and 0.841) respectively, whereas the calculated coefficient between CF and VP as a whole is found to be (0.499), as shown in Table 5.

Table 5 The calculated Coefficients CF and VP

Variable	N	Correlation Coefficient	T-test Value		Level of significance (0.05)
			Computed	Critical	
VST	400	0.480	10.909	1.96	Significant
PVLТ		0.481	10.931		Significant
VP		0.499	11.089		Significant

Table (5) indicates that the correlation between CF and VP is a statistically significant direct one as the computed t-values of VST, PVLТ and VP (10.909, 10.931, 11.089), respectively, are higher than the critical one at (0.05) level of significance and under (389) degree of freedom. Such a result affirms that whenever Iraqi EFL students' CF increases, their receptive and productive vocabulary knowledge and VP also increase.

Discussion

According to the study's findings, Iraqi EFL university students possess a good contextual focus and vocabulary proficiency, with a strong positive correlation between students' CF and VP. This result indicates that the cognitive tendency to shift from associative and analytic modes of thinking and vice versa influences the knowledge structure in the student's memory and retrieval ability. It facilitates vocabulary proficiency by allowing more routes for recalling and redescription of encoded-words in memory.

Conclusion

In light of the results, it is concluded that mental factors like contextual focus have influenced Iraqi EFL university students' level in VP. The proper utilisation of memory leads to improved self-confidence and cognitive control, as evidenced by students making informed choices to derive word meanings accurately.

Knowing the most frequently used words is crucial for Iraqi university students. Regarding the PVL, they have a substantial amount of vocabulary at 2000 and 3000 levels, followed by 5000 and academic word levels, but they need more vocabulary knowledge at 10,000-word levels. The trend observed, as expected, is that they know more about the high-frequently used words and less about the low-frequently used ones. In other words, the frequency levels of the PVL are entirely scalable; after mastering one level, a student can be assumed to reach the criterion mastery at higher frequency levels (Schmitt et al., 2001).

In addition, VP comprises multiple components and vocabulary learning is incremental. Therefore, instructors need to encourage sustained interaction with vocabulary in a context rather than simply asking students to memorise long lists of words. Iraqi EFL students are proficient in approximately 53% of 570-word families from the academic and high-frequency word lists. These words are essential for daily academic tasks at the university level, as Reads (2000) and Nation (2006) proposed.

The low-frequency words used productively by university students at the 10,000-word level are limited due to specific word usage within the register, which presents more difficulties than general vocabulary because of its most frequent use (Seglar et al., 2010). For instructors, this means that teaching should have different focuses, and there is a need to move from focusing on particular high-frequency words to concentrating on strategies to be used in learning the low-frequency ones.

References

- Aitchison, J. (2003). *Words in the Mind: An Introduction to the Mental Lexicon*. Blackwell Publishing, Malden.
- Al-Bakri, S.A.B. & Salman, A. M. (2020). Fluid, Crystallized Intelligence and Language Proficiency: A Correlational Study. *Journal of Global Scientific Research*, 9 (), 834-844.
- Alfatle, A.B.M., (2016). *Investigating the Growth of Vocabulary Size and Depth of Word Knowledge in Iraqi Foreign Language Learners of English* (Unpublished master's thesis). Missouri State University.
- Barcroft, J. (2009). Strategies and Performance in Intentional L2 Vocabulary Learning. *Language Awareness*, 18(1), 74–89.
- Bastanfar, A. & Hashemi, T. (2020). Vocabulary Learning Strategies and ELT Materials; A Study of the Extent to Which VLS Research Informs Local Coursebooks in Iran. *International Education Studies*, 3(3).

- Best, J.W. and Kahn, J.V. (2006) *Research in Education* (10th edition). Pearson Education Inc., Cape Town.
- Cobb, T. (1999). Breadth and Depth of Lexical Acquisition with hands-on Concordance. *Computer Assisted Language Learning*, 12(4), 345–360.
- Chaiken, S. & Trope, Y. (1999). *Dual-Process Theories in Social Psychology*. New York: Guilford Press.
- Chrysikou, E. G. (2006). When shoes become hammers: Goal-derived Categorization Training Enhances Problem-Solving Performance. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 32(4), 935–942.
- Dipaola, S. & Gabora, L. (2009). Incorporating Characteristics of Human Creativity into an Evolutionary Art Algorithm. *Genet Prog and Evolvable Machines*, 10 (2), 97-110.
- Dugan FM, Schubert K, Braun U (2004). Check-list of Cladosporium names. *Schlechtendalia*, 11, 1–103.
- Evans, J. & Frankish, K. (2009). In *Two Minds: Dual Processes and Beyond*. New York: Oxford University Press.
- Gabora, L. (2010). Revenge of “neurds”: Characterizing creative thought in terms of the structure and dynamics of memory. *Creativity Research Journal*, 22(1), 1-13.
- _____(2013). Contextual Focus: A Cognitive Explanation for the Cultural Transition of the Middle/Upper Paleolithic. (In R. Alterman & D. Hirsch, Eds) *Proceeding of the 25th Annual Meeting of the Cognitive Science*.
- Gabora, L., & Smith, C. (2018). Two Cognitive Transitions Underlying the Capacity for Cultural Evolution. *Journal of Anthropological Sciences*, pp. 96, 1–26.
- Gall, M., Gall, J., & Borg, R. (2007). *Educational research: An introduction* (8th ed.). New York: Pearson Education.
- Gay, L.R., Mills, G.E. and Airasian, P. (2009) *Educational Research Competencies for Analysis and Applications*. Pearson, Columbus.
- Goldschmidt, G. (2016). Linkographic Evidence for Concurrent Divergent and Convergent Thinking in Creative Design. *Creativity Research Journal*, 28(2), 115-122,
- Greidanus, T., & Nienhuis, L. (2001). Testing the Quality of Word Knowledge in a Second Language by Means of Word Associations: Types of Distractors and Types of Associations. *Modern Language Journal*, 85, 567-577.
- Hajilou, Y., Yazdani, H., Shokrpour, N. (2012). The Relationship Between Iranian EFL Learner’s Creativity and Their Lexical Reception and Production Knowledge. *Canadian Center of Science and Education*. 5 (3).
- Hazenbergh, S., & Hulstijn, J. H. (1996). Defining a Minimal Receptive Second-Language Vocabulary for non-native university students: An Empirical Investigation. *Applied Linguistics*, 17 (2), 145-163.
- Hollich, G., Kathy H., Golinkoff, R., Brand, R., Brown, E., Chung, He., Hennon, E., Rocroi, C. (2000). Breaking the Language Barrier: An Emergentist Coalition Model for the Origins of Word Learning. *Monographs of the Society for Research in Child Development*, 65(3), i-123.
- Howard, J. (2002). A dual-state model of Creative Cognition for Supporting Strategies that foster creativity in the classroom. *International Journal of Technology and Design Education*, 12 (3), 215–226.
- Jiang, X., Sawaki, Y., & Sabatini, J. (2012). Word Reading Efficiency, Text Reading Fluency, and Reading Comprehension among Chinese Learners of English. *Reading Psychology*, 33(4), 323-349.
- Kamil, S.A.J. (2022). Investigating Strategies Developed by University Students in Learning English Vocabulary. *Alustath Journal for Human and Social Sciences*, 61 (4), 410-421. <https://doi.org/10.36473/ujhss.v61i4.1870>.

- Kersten, S. (2010). *The mental lexicon and vocabulary learning: Implications for the foreign language classroom*. Tübingen: Verlag Narr.
- Laufer, B., & Paribakht, T.S. (1998). The relationship between passive and active vocabularies: Effects of language learning context. *Language Learning*, 48(3), 365-391.
- Laufer, B., & Girsai, N. (2008). Form-focused instruction in second language vocabulary learning: a case for contrastive analysis and translation. *Applied Linguistics*, 29, 694-716.
- Liu, B. (2016). Application of Associative Teaching Strategy in College English Vocabulary Teaching. *Open Journal of Modern Linguistics*, pp. 6, 225-229.
- Louis, M. R., & Sutton, R. I. (1991). Switching cognitive gears: From habits of mind to active thinking. *Human Relations*, 44(1), 55-76.
- Manan, N.A., Azizan, N.B. & Nasir, N.F.W. (2016). Measuring the Receptive and Productive Vocabulary Level of First-Year Undergraduates from a Public University in Malaysia. Conference: International Conference on Language, Education, and Civilization. Malaysia.
- Moskowitz, T. & Ooi, Y. & Pedersen, L. (2012). Time series momentum. *Journal of Financial Economics*, 104, 229-260.
- Nassaji, H. (2004). The Relationship between depth of vocabulary knowledge and L2 learner's Lexical inferencing strategy use and success. *The Canadian Modern Language Review*, 61(1), 107-134.
- Nation, I. S. P. (1993). Vocabulary size, growth, and use. In R. Schreuder and B. Weltens (eds) *The Bilingual Lexicon* (pp. 115-134). Amsterdam: John Benjamins.
- _____ (2001). *Learning Vocabulary in another Language*. Cambridge: Cambridge University Press.
- _____ (2005). *Handbook of Research in Second Language Teaching and Learning* (1st ed.). New York: Routledge.
- _____ (2006). How large is a vocabulary needed for reading and listening? *Canadian Modern Language Review*, 63(1), 59-82.
- _____ (2013). *Learning vocabulary in another language* (2nd ed.). New York: Cambridge University Press (Original work published 2001).
- Nation, P. & Laufer, B. (1999). A Vocabulary-Size Test of Controlled Productive Ability. *Language Testing*, 16, 33-51.
- Nation, I.S.P. & Beglar, D. (2007) A vocabulary size test. *The Language Teacher*, 31(7), 9-13.
- Pringle A., & Sowden, P.T. (2016). The Mode Shifting Index: A new measure of the creative thinking skill of shifting between associative and analytic thinking. *Thinking Skills and Creativity*, 23, 17-28.
- Qian, D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: an assessment perspective. *language Learning* 52(3), 512-536.
- Read, J. (1993). The development of a new measure of L2 vocabulary knowledge. *Language Testing*, 10 (3), 355-371.
- _____ (2000). *Assessing vocabulary*. Cambridge, UK: Cambridge University Press.
- Richards, J. C. (1976). The role of vocabulary teaching. *TESOL Quarterly*, 10, 77-89.
- Runco, M. A., & Acar, S. (2012). Divergent thinking as an indicator of creative potential. *Creativity Research Journal*, 24(1), 66-75.
- Salih, R. H. & Riyadh, E. (2022). The Correlation of Iraqi EFL Intermediate School students' Vocabulary Learning Strategies with Proficiency. *Nasaq Journal*, 36 (3), 1363-1385.
- Segler, T. & Pain, H. & Sorace, A. (2010). Second Language Vocabulary Acquisition and Learning Strategies in ICALL Environments. *Computer Assisted Language Learning*, 409-422.
- Schmitt, N. (1998). Tracking the incremental acquisition of second language vocabulary: A longitudinal study. *Language learning*, 48, 281-317.

- _____ (2000). *Vocabulary in Language Teaching*. Cambridge: Cambridge University Press.
- _____ (2008). Review article: Instructed Second Language Vocabulary Learning. *Language Teaching Research*, 12(3), 329-363.
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language Testing*, 18 (1), 55-88.
- Schmitt, N., & Schmitt, D. (2014). A reassessment of frequency and vocabulary size in L2 vocabulary teaching. *Language Teaching*, 47(4), 484-503.
- Shan, P. L. M., Yunus, M. M., & Mohamad, M. (2016) Its Effects on English Language Teaching in Malaysia. *Asian EFL Journal*, 4.
- Sowden, P.T., Pringle, A. & Gabora, L. (2015). The Shifting sands of creative thinking: Connections to dual-process theory. *Thinking and Reasoning*, 21(1),40-60.
- Thornbury S. (2002). *How to teach vocabulary*. Longman.
- Webb, S. (2005). Receptive and productive vocabulary learning: The effects of reading and writing on word knowledge. *Studies in Second Language Acquisition*, 27, 33–52.
- Yoshida, H. & Benitez, V. (2010). Attentional Control and Early Word Learning. In D. S. McNamara & J. G. Trafton (Eds.), *Proceedings of the 29th Annual Cognitive Science Society*. Nashville, TN: Cognitive Science Society, 32, 2627–2632.