

EFFECTS OF SEMANTIC ELABORATION BASED WRITING ON SECOND LANGUAGE ACQUISITION: AN ANALYSIS OF IRAQI OUTBACK STUDENTS

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ABSTRACT

According to research, semantic elaboration helps learners remember lists of known and unknown words recorded as general terms. In other research, semantic elaboration has yet to be shown to improve the recall of new word definitions. It is anticipated that semantic elaboration may harm the acquisition of word forms, considering these results and the inverse association between processing information in a second language (L2) for meaning and form. The research operationalized semantic elaboration by adding additional words to phrases to evaluate this notion. The current research aimed to determine how semantic and structural elaboration affected the acquisition and retention of L2 vocabulary. Fifty college students took part. They were divided into two elaboration groups at random: structural and semantic. Three sessions were used to teach 45 new English terms, and each group's objective included categorizing the words according to their number of letters or semantic significance (structure). They completed a post-test right after and another one two weeks later. The findings demonstrated that the text seems grammatically correct and has no spelling errors. However, it could be rewritten for clarity. Here is a suggestion:

The effects of adding more meaning and organization to the vocabulary learning process of English as a Foreign Language (EFL) learners. Acquisition and retention from the assigned writing assignment were not

significantly different. For more detailed findings, further study is needed to examine semantic elaboration's effectiveness at different language proficiency levels. A study is needed to examine semantic elaboration's effectiveness at different language proficiency levels.

Keywords: *Semantic Elaboration, Writing, L2 Language Learning, Iraqi Students*

آثار التفصيل الدلالي المبني على الكتابة في اكتساب اللغة الثانية: تحليل لطلبة المناطق
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المخلص

وفقاً للبحث، يساعد التفصيل الدلالي المتعلمين على تذكر قوائم الكلمات المعروفة وغير المعروفة المسجلة كمصطلحات عامة. في أبحاث أخرى، لم يُظهر التفصيل الدلالي بعد أنه يحسن تذكر تعريفات الكلمات الجديدة. ومن المتوقع أن التفصيل الدلالي قد يضر باكتساب أشكال الكلمات، مع الأخذ في الاعتبار هذه النتائج والارتباط العكسي بين معالجة المعلومات في اللغة الثانية للمعنى والشكل. قام البحث بتفعيل التفصيل الدلالي عن طريق إضافة كلمات إضافية إلى العبارات لتقييم هذه الفكرة. يهدف البحث الحالي إلى تحديد مدى تأثير التفصيل الدلالي والبنوي على اكتساب مفردات اللغة الثانية والاحتفاظ بها. وشارك فيها خمسون طالباً جامعياً. وقد تم تقسيمهم إلى مجموعتين تفصيليتين بشكل عشوائي: الهيكلية والدلالية. تم استخدام ثلاث جلسات لتدريس ٤٥ مصطلحاً جديداً للغة الإنجليزية، وكان هدف كل مجموعة يتضمن تصنيف الكلمات وفقاً لعدد حروفها أو أهميتها الدلالية (البنية). لقد أكملوا الاختبار اللاحق مباشرة بعد ذلك وآخر بعد أسبوعين. أظهرت النتائج أن تأثيرات التفصيل الدلالي والبنوي على اكتساب متعلمي اللغة الإنجليزية للمفردات والاحتفاظ بها من مهمة الكتابة المعينة لم تكن مختلفة بشكل كبير. للحصول على نتائج أكثر تفصيلاً، هناك حاجة إلى مزيد من الدراسة حول فائدة التوضيح الدلالي على مستويات المهارات اللغوية المختلفة.

الكلمات المفتاحية: التفصيل الدلالي، الكتابة، تعلم اللغة الثانية، الطلبة العراقيين

Introduction

Higher education is seen to achieve social competence and financial success in a changing world. A college degree has been given much weight in education to ensure government jobs or opportunities to study

abroad. Developing good academic writing skills is crucial since, according to Jassim (2016, pp. 162–186), focusing on undergraduate students' academic writing ability will impact their academic progress. Over the last 20 years, writing has become an essential tool for today's global society. More individuals are writing on digital platforms like social media, email, and text messaging to improve communication (Diaz et al., D. 2008, pp. 1–7).

Due to constant technological advancement, people need to be connected, exchange ideas, learn new things, and communicate worldwide; these activities depend on their ability to write effectively and practically (Tibon et al., 2017, pp. 4861–4863). Thus, writing ability is one of the most essential measures of undergraduate students' academic achievement (Boers & Lindstromberg, 2009; Perlmutter & Myers, 1976, pp. 79–105). Writing is now used in educational contexts to evaluate undergraduate students' language competency and degree of learning progress (Westmacott et al., 2004, pp. 25–48). At the tertiary level in Iraq, Zahedi and Abdi claim that writing logical, well-structured expository essays is essential (Zahedi & Abdi, 2012, pp. 2273–2280). They lament that non-writing pupils are disadvantaged since they cannot create strong arguments to support their opinions.

Semantic elaboration is the process of expressing a sensory experience in words. According to several studies (Ford et al., 2022, pp. 1–14; Fougères & Ostrosi, 2021, p. 3; Humphreys et al., 2020, pp. 113; Moreau, 2011, pp. 202–221; Nielson et al., 2005, pp. 49–56; Perlmutter & Myers, 1976, pp. 438–453; Zahedi & Abdi, 2012, pp. 2273–2280), learning with semantic elaboration increases recall compared to learning without it for various memory tasks. Numerous verbal memory tests, most often using lists of words, have shown this effect, also known as the levels-of-processing effect (K & Gupta, 2017; Lee et al., 2011; Perlmutter & Myers, 1976). Although auditory stimuli

have not yet been included in the experiments, it has also been tested for remembering details about recognizable pictures (Irish et al., 2012, pp. 3488–3495) and for recalling faces (Diveica et al., 2021; Fernández-Fontecha & Kenett, 2022; Fougères & Ostrosi, 2021; Shin, 2020, pp. 45–58). It is also unclear how the storage and retrieval of spatial memories may be aided by the simple ability to recognize a stimulus, which requires more semantic elaboration than just witnessing an inspiration without giving it a name. The purpose of this study is to look into how writing in a second language can benefit from semantic and structural elaboration in terms of vocabulary acquisition and retention.

Even though the majority of the literature on memory development has been on comparing levels of performance across age groups and analyzing possible method changes that may account for the improvement observed with age (Barcroft, 2000; Ford et al., 2022), some research has begun to investigate into potential age differences in writing skill acquisition processing (Fougères & Ostrosi, 2021; Shin, 2020; Wang & Cohen, 2021). When age differences in the knowledge base supporting such processing have been considered, the performance patterns of children and adults generally appear similar. However, given the lack of studies on this processing in young infants, it is too early to conclude that no developmental change may be seen. The processing's nature is still quite unclear.

The researcher performed the present research to understand better semantic elaboration and interpretation in college students' memories. The technique was an exercise in recognizing memory for reading comprehension (Barcroft, 2000). These tests have helped figure out how stimuli are recalled and retained. Even though participants are often extremely adept at differentiating highly discriminable stimuli, confusion errors occur when distracters are similar to the original stimuli (Ford et

al., 2022; Humphreys et al., 2020). Furthermore, it may be inferred that specific receptors include information that matches the information utilized to produce erroneous recognition judgments. To better understand the nature of memory representations, examining identification errors as a function of the kind of distractor may be helpful.

Semantic Elaboration

Learners use cognitive effort when they expound on any significant feature. Elaboration improves retention over superficial or shallow processing, which was initially referred to (metaphorically) as deep processing (Perlmutter & Myers, 1976). The fundamental concept remains the same, even if rich and elaborative terms are more often used now than the one-dimensional deep.

According to Zahedi and Abdi (2012), dual coding, which entails the connection of verbal and non-verbal inputs, is one method for rich or elaborate processing. When a word or phrase evokes a mental image, it carries meaning. Recalling the lexeme is made more accessible since the image's memory trace serves as another point of entry (Perlmutter & Myers, 1976). In the case of words that signify something tangible, associations with mental images are usually clear. Dual coding is conceivable for abstract terms but less easily so; for example, When the keyword technique is used on an abstract or vague target word, it may not be effective. (Ford et al., 2022, pp. 1–14). For instance, phonetic similarity and semantic association—leopards are hazardous animals—allow the abstract word peril to be connected to the concrete, immediately imaginable word leopard (Shin, 2020; Zahedi & Abdi, 2012). Abstract words might also use dual coding in a story that appeals to the imagination. For instance, the word precious may have evolved to connote certain Lord of the Rings situations in many people's imaginations (Perlmutter & Myers, 1976).

The best dual coding method is suited for idioms used in writing tasks. (Ford et al., 2022). Idioms are frequently referred to as dead or frozen metaphors since their figurative meaning is no longer commonly recognized as such, i.e., as a continuation of prior, literal usage, due to the widespread acceptance of that interpretation (Shin, 2020). Despite what this might seem, the original symbolic meaning can still be recovered. Iraqi listeners are sometimes reminded of an idiom's metaphorical nature when it is creatively used, such as in a pun that suggests a literal interpretation or when a typical lexical element is substituted by someone else, another member of a comparable group (Jassim, 2016). Given how few idioms are entirely opaque, it is probably possible to partially resuscitate the literal meaning of most of them (Westmacott et al., 2004). Collins Co builds Dictionary of Idioms (2002 edition). Speake's (1999) Oxford Dictionary of Idioms are two idiom dictionaries that, fortunately for teachers, offer origin information in a substantial number of the entries—understanding an idiom's original, literal usage aids in connecting it to a mental picture of a specific circumstance, which aids in understanding what it means when it is employed idiomatically (which, for example, may entail both motoric and visual components) (McCarthy et al., 2022).

Following the publication of Lakoff and Johnson's *Metaphors We Live By* (1980) and subsequent monographs that established Cognitive Semantics (CS) (Catrambone & Yuasa, 2006; Hasan & Yaseen, 2022; Katsanos et al., 2008; Lauro et al., 2020; Westmacott et al., 2004; Zhang, 2021), several authors, including lexicographers, applied linguists, and language teaching methodologists, have argued that materials and activities that raise awareness of metaphor and other language features should (Bartsch et al., 2019; Biswas et al., 2022; Guo et al., 2011; Hasan & Yaseen, 2022; Jassim, 2016; Zarrabi & Bozorgian, 2020). The question in this part is whether and how assisting

students in making a literal connection between each piece and the context in which it was first used enhances their understanding and retention of the targeted idioms. The main contribution of this study is to help students process idiomatic word strings holistically, but most of the educational strategies the study will discuss and evaluate require students to analyze or decompose idioms to some degree in writing

Semantic Elaboration and Sentence Writing

Semantic elaboration and its effects on learning have recently received much attention, particularly in cognitive psychology. A groundbreaking study in this area occurred between the 1960s and the early 1970s. Semantic elaboration has already become a significant issue in memory research employing the stages of the processing paradigm at that point (Perlmutter & Myers, 1976, pp. 438–453). While earlier multistore models of human memory did so by using modular constructs like holding mechanisms or memory stores, researchers using the levels of processing framework started to represent these phenomena in terms of different levels of perceptual analysis that may be accounted for without the use of modular constructs (Candry et al., 2020, p. 89). According to the levels of processing framework, the relative degree or depth at which an item is processed in a learner's cognitive system impacts how effectively that object will be recalled (Tibon et al., 2017). Tasks that need more complicated, in-depth information processing promote better memory and learning. Since it is believed to enhance memory for an object by producing a more in-depth level of processing, semantic elaboration is a crucial idea in this method (Jassim, 2016).

The two main methods of vocabulary development via written comprehension are accidental learning—or learning from context—and direct, purposeful learning (Abdi et al., 2022). Extensive reading, often known as incidental learning, is beneficial for vocabulary development, according to Tibon et al. (2017). However, there are several deliberate

methods for learning vocabulary. It has been shown that remembering techniques requiring in-depth semantic processing of the target word outperform methods requiring just surface processing, such as vocal rote repetition (Giboreau et al., 2007; McCarthy et al., 2022; Renault et al., 2020; Zhang, 2021).

The two primary categories of memory procedures are mnemonic and non-mnemonic elaboration methods. According to Yoo, Lee, Yoo, and Xiao (2021), non-mnemonic elaboration methods like semantic ordering and mapping encourage students to think about target words regarding their semantic features. Semantic elaboration is any mental process involving the meaning of a word or phrase, according to Mesmia, Zid, Haddar, and Maurel (2017). To better understand a new concept, you can mentally connect it to something you already know, put it into a relevant context, or visualize it. For instance, when students think about the word snail, they may consider how it represents a specific category, like an animal or a type of food. (Zhu et al., 2020, pp. 204). Furthermore, they specify that structural elaboration refers to any mental process involving the formal characteristics of a word or phrase (Katsanos et al., 2008; Tibon et al., 2017). For instance, affix identification, spelling quirks, and striking auditory patterns may all trigger structural elaboration (e.g., repetition as in rhyme). The Keyword Method and other more profound learning techniques have been demonstrated in studies to improve retention over rote memorizing (Ford et al., 2022; Renault). It is generally recommended that beginners focus on simpler activities that contain less distracting content. Meanwhile, intermediate and advanced learners can benefit from more complex activities that provide contextual information. When trying to memorize a new word, one effective technique is to use mnemonic strategies that combine verbal and visual mental images to connect them to previously learned information. According to Tibon et al. (2017), the Keyword

Method is a particularly effective mnemonic technique when it comes to learning new vocabulary.

Moreover, semantic elaboration is the process through which a learner directs their processing resources toward the objects' semantic qualities (referential, meaning-based features) while they receive data. The concept of semantic elaboration lends itself to many operationalizations, as one may assume from this definition. The crucial element of semantic elaboration is the execution of a task or collection of activities that compels the learner to concentrate more intensely than usual on the semantic features of an input item (Gainotti, 2008). Semantic elaboration has often been measured in studies on processing levels employing students completing orienting activities that force them to focus greater processing power on the semantic characteristics of a collection of input items. Typically, in these investigations, the learning rate under enhanced semantic elaboration (deeper processing) is contrasted with the learning rate under decreased or no semantic elaboration (shallower processing). For instance, K and Gupta (2017) tested semantic elaboration by having students determine whether words were instances of a given concept (such as economics), and they contrasted their results with more structurally oriented conditions where students had to cross out vowels in words or copy words. Zhu et al. (2020) used a situation where students had to decide if a term had a good or negative meaning to operationalize semantic elaboration. This condition contrasted with others where students had to estimate the number of words that included each letter of the alphabet or count the occurrences of the letter E. Finally, Perlmutter and Myers (1976) evaluated semantic elaboration under three situations by asking students to scan a list of words and decide whether each phrase referred to living creatures, geographic places, or both. These three situations contrasted with two others in which students were instructed to scan the list to see

whether the letter A was present in each word or if each word's letters were distinct (Jassim, 2016, pp.162–186). While the three studies previously mentioned focused on the impact of semantic elaboration on the recall of lists of well-known first language (L1) words, more recent research has looked at the impact of semantic elaboration on the acquisition of L2 words and has operationalized the concept of semantic elaboration in a variety of other ways. The four circumstances of more semantic elaboration and the conditions of less semantic elaboration to which they have been compared (in selected research) are as follows: (a) using visual imagery (the Keyword Method) to link L2 words with L1 keywords that sound like parts of the L2 words as opposed to viewing L1 translations of L2 words (Katsanos et al., 2008); (b) using the peg word or hook technique to associate L2 articles and nouns as opposed to rote learning (Westmacott et al., 2004); and (c) viewing usage examples of new L2 words and answering questions (Tibon et al., 2017). The examples above show how semantic elaboration has been operationalized in the research literature.

Method

The study involved 50 students from a college in the Iraqi town of Baqubah, near Baghdad. The ages of the participants ranged from 16 to 21. They had almost the same level of language proficiency because they had all taken classes in the same setting at the same university with the same professor in their first years of college. They all attended intermediate-level classes. They began learning English in their first year of college because they lived in a small town with two language schools.

Design

Although the participants were chosen randomly and placed in experimental groups, the study's design was truly experimental. In the research study, vocabulary learning and retention from a specific writing

task were the dependent variables, while semantic and structural elaboration were the independent variables. All participants were students, and their ages ranged from 16 to 21. Therefore, their gender and age served as the control variables.

Instrumentation

The researcher's language background questionnaire, which included questions about the students' past language competency, served as the first instrument. A 25-item writing KET test at a basic level was the following instrument utilized to standardize the participants. The vocabulary pre-test required students to indicate their familiarity with 45 terms that would be taught during the study's treatment section. Illustrations accompanied the words. The last tool was a set of writing comprehension and vocabulary questions after the writing lessons to determine how much vocabulary had been learned and remembered for the writing task. There were two post-tests: one was administered just after the lecture, and the other was given two weeks later. The original text is free of typographical, grammatical, and punctuation mistakes.

Procedure

The participants responded to a questionnaire concerning their prior exposure to English. Fifty students were randomly chosen to participate in the research and received the piloted KET. Two experimental teams were randomly assigned to semantic and structural elaboration. Each group completed the pre-test.

During the study's first session, participants were given a list of fifteen new English words to learn, along with the corresponding images that were projected onto the front of the classroom screen. The participants' upper-level course texts were utilized to select the words. The fifteen words were divided equally between words with three, four, five, six, and more letters.

Participants in the structural assignment had to group the words into four categories: three-letter, four-letter, five-letter, and six-letter or more terms according to how long they were. The participants were instructed to complete the exercise on the sheet that they were provided. Following the activity, they had to match 15 words with the corresponding visuals they had previously learned in a post-test.

Two weeks later, the same exam was given as a post-test. Sessions three and four followed the same structure as the first session but with 15 additional terms used.

The participants in the semantic evaluation group had a different goal than the structural group. Instead of focusing on structure, they aimed to analyze the meaning of terms. The students were given a sheet and instructed to categorize terms into four groups: those related to the kitchen, those associated with rooms other than the kitchen, those related to tools, and those not associated with any of these groups. After completing the task, the students took immediate and delayed post-tests.

Findings

Forty-five vocabulary items were taught to both experimental groups during the course of the three treatment sessions. Following every session, the participants completed three post-tests right away. According to the data gathered, the two groups' skewness ratios—.021/.491 for the structural group and .424/.491 for the semantic group—fell between -1.96 and 1.96. This showed the researcher that the score distributions were typical (refer to Table 1).

Table 1. Independent samples t-test results of the vocabulary immediate post-tests scores of both experimental groups

	Levene's Test for Equality of Variances		Independent sample t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal Variance Assumed	3.29	.103	-1.468	42	.150	-2.95455	2.01238	-7.0157	1.10661

An independent samples t-test was used to examine the first null hypothesis of the research. The score distributions satisfied the requirements for normalcy. With a F value of 3.29 and a p-value of 0.103, which is above 0.05, Levene's test for equality of variances revealed that there was no statistically significant difference between the variances of the two groups. Consequently, the equality of variances assumption was made. Consequently, the following presents the t-test findings assuming variance homogeneity. The results showed that there was no statistically significant difference between the two experimental groups' mean vocabulary immediate post-test scores ($t = -1.468$, $df = 42$, $p = 0.150 > 0.05$). Thus, it is hard to refute the study's initial null hypothesis, which held that semantic and structural elaboration have the same effects on EFL learners' vocabulary acquisition.

Discussion

Since there was no clear statistical difference in the post-test scores for the immediate and delayed semantic and structural groups, the study's main null hypotheses were accepted. This study is one of the few that compares the advantages of semantic and structural elaboration in vocabulary acquisition. (Fernandez-Fontecha, 2021; Garca-Sánchez et al., 2009; Philips, 2010; Tate et al., 2019; Triki, 2019; Vogt, Babel, Hock, Bau (Borgo et al., 2003; Cribb, 2012; Vogt et al., 2021). The study's results are in line with earlier studies. According to Philips' (2010) findings, learners who utilized no elaboration (semantic or structural) had stronger perspectives than those who did. Furthermore,

Philips (2010) concluded that increased semantic processing might impede a person's ability to encode the standard features of new words. The present study's results, which demonstrated that the structural group outperformed the semantic group in practically all post-tests even though the difference was not statically significant, are comparable to those of Ahmadi (2014).

Conclusion

The learners in this study were intermediate college students in Iraq; therefore, the results can be contrasted with other recent studies that found that writing sentences can impede acquiring word forms at the early stages of L2 lexical acquisition. According to Jassim (2016), teaching etymology to high school students in Iraq has no discernible impact on how well they remember vocabulary words. This aligns with the current study's findings, which demonstrate that structural elaboration has no appreciable impact on vocabulary acquisition and retention. Semantic congruency accelerates variations in brain activity linked to subsequent memory, according to Zarrabi and Bozorgian's (2020) research. This research adds a great deal to the body of knowledge.

To interpret this acceleration, more investigation is needed; precisely, it should be ascertained to what extent this acceleration directly reflects episodic encoding based on events and to what extent it is related to semantic memory or schema. For the concept of a schema to have further theoretical significance, it must do more than simply activate related concepts in semantic memory; it must also provide constraints that aid in the better recall of events. Future research can examine the impact of additional structural and semantic elaboration methods on acquiring and retaining new L2 vocabulary through reading activities. Furthermore, additional research could provide different results over time and in various contexts. It is possible to investigate whether semantic

and structural elaboration influences participants' memory of new terms over a longer period than two weeks.

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