Research Paper

Enhancing Acquisition and Retention of English Formulaic Sequences through an Etymology-Driven Attention-Drawing Technique

Naser Salehi

Department of Foreign Languages, Darab Branch, Islamic Azad University, Darab, Iran

ABSTRACT: *This research endeavors to explore the effects of implementing a mnemonic technique called Etymological Elaboration on the apprehension and retention of vocabulary among English learners. To assess the efficacy of this method, 50 advanced English learners from two intact classes at a private language institute in Darab, Iran were randomly allotted to experimental and control groups. Both groups were examined on 15 low-frequency idioms through a combination of multiple choice and gap-fill test questions, with the experimental group advantaged through being provided with an extra matching exercise containing etymological explanation for each item. The results of the tests provided evidence of the mnemonic effectiveness of etymological elaboration in terms of vocabulary learning and recall. This implies that incorporating attention-grabbing techniques like etymological elaboration into vocabulary instruction in the classroom can be considered practical. The study concludes by suggesting a correlation between the obtained results and existing psycholinguistic theories.*
Keywords: Etymology, elaboration, comprehension, retention, idioms

I. INTRODUCTION

The Oxford Dictionary of Current Idiomatic English emphasizes the significance of being familiar with a wide range of formulaic sequences or idiomatic expressions and being able to use them appropriately in different contexts as a key characteristic of having a native-like command of the English language. Although some second language learners may not strive for native-like proficiency, idiomatic usage is so prevalent in English that it can be challenging to communicate effectively without incorporating idioms (Seidl & McMordie, 1988). Consequently, over the past two decades, significant efforts have been made by researchers in the field of second and foreign language learning to develop strategies and techniques that facilitate the acquisition of idioms among language learners (Li & Liontas, 2023). One such effort is the utilization of an etymology-driven attention-drawing technique known as etymological elaboration (EE), which was initially introduced by Boers, Demecheleer and Eyckmans (2004). Etymological elaboration falls under the category of semantic elaboration, which involves learners actively and comprehensively processing an item in terms of its meaning (Cohen, Le Voi, & Eysenck, 1986). It can be defined as a cognitive process that assists learners in understanding the figurative meaning of an idiom by tracing its origins and original usage or context.

The extent to which the learners can comprehend and retain idioms through etymological elaboration remains uncertain. Boers, Demecheleer and Eyckmans (2004) acknowledge this uncertainty by stating that the exact processes occurring in the learner's brain for etymological elaboration to have a mnemonic effect are not fully understood. However, by considering two cognitive theories, we may be able to shed light on the effectiveness of etymological elaboration. One possible explanation for how etymological elaboration aids learners in understanding idioms lies in Cognitive Semantics. Cognitive Semantics (CS) is a method of examining linguistic meaning that acknowledges the human capacity for language as a cognitive ability. By taking into account the cognitive mechanisms that govern the processing of non-linguistic reality, particularly in terms of conceptual and perceptual aspects, a better understanding of language and meaning can be achieved (Detges, 2022). Moreover, the effectiveness of etymological elaboration in retaining idioms can also be ascribed to the Dual Coding Theory (Clark & Paivio, 1991). Dual coding involves the integration of both words and visuals, such as pictures, diagrams, and graphic organizers, to facilitate students' understanding of information.

By providing two distinct representations - visual and verbal - dual coding aims to enhance students' comprehension of the subject matter. The inclusion of visuals alongside verbal descriptions serves to make abstract ideas more tangible and offers students multiple pathways to grasp the presented concepts. However, it is important to note that the effectiveness of dual coding lies not solely in the mere addition of pictures, but rather in the meaningfulness of these visuals. Additionally, students should be given ample time to integrate the two representations, as failure to do so may result in cognitive overload. Scientific evidence supports the efficacy of dual coding, indicating that the combination of visual and verbal representations facilitates students' learning and understanding of the material. In light of this theory, it can be deduced that etymological information is likely to evoke a mental image of a concrete scene, which can then be stored in memory alongside the verbal form. This dual representation provides an additional avenue for recall.

In line with the above discussion, the objective of the current research is to investigate whether there exists a significant statistical distinction in the impact of etymological elaboration and rote memorization on the acquisition of low-frequency lexical terms by proficient English learners from Iran. Therefore, the two research inquiries regarding this study will be stated as:

A. To what extent does the learning strategy of "Etymological Elaboration" contribute to the   comprehension of vocabulary among EFL learners?

B. Can the learners retain knowledge of vocabulary for an extended period if they are provided with information about their origins?

II.   LITERATURE REVIEW

While the 1990s saw a lot of research on idioms, the first hypotheses about their behavior were proposed in the 1970s. Prior to this, the study of idioms was neglected for three reasons (Boers, Demecheleer, & Eyckmans, 2004). Firstly, linguists viewed language as a dichotomy of grammar rules and individual words, with idioms not fitting into this framework. Secondly, idiomatic expressions were deemed unimportant and were only used in rhetoric and poetry. Lastly, it was believed that the meaning of idioms could not be predicted. These reasons led linguists to believe that idioms could not be taught in an engaging manner, with rote learning being the only option for students. Consequently, idiomatic expressions received little attention in educational linguistics.

Over the past two decades, cognitive semantics advocates, such as Lakoff and Johnson (2008), Langacker (2008) and Langacker (1987), have introduced a fresh perspective on idioms. One of the novel aspects of this approach is its connection of metaphors to idioms. In essence, cognitive semantics considers factors such as the systematic nature of idioms, the conceptual mappings that explain much of their meaning, the motivated nature of idioms, and other cognitive mechanisms (such as metaphor, metonymy, and conventional knowledge) on which idioms are based (Kovecses & Szabco, 1996).

In cognitive semantics, it is posited that when something, such as Multi-Word Units (MWUs), is not arbitrary nor completely predictable, it possesses a certain level of motivation. Motivation, as defined by Lakoff and Women (1987), refers to the existence of an independent link, denoted as L, that establishes a coherent connection between A and B. This link, L, provides a logical explanation for the relationship between A and B. In essence, while the idiomatic meaning may not be entirely predictable based on its literal meaning, the derivation from the literal sense can still be elucidated. It is important to note that this motivation, despite lacking a true predicative status, is considered a retrospective explanation (Boers, Eyckmans, & Stengers, 2006).

Motivating idiomatic expressions can be done in various ways. One of these is by referring to the underlying conceptual metaphors or metonymies of multiword expressions. Another approach is called "Etymological Elaboration," which traces idioms back to their historical, cultural, or etymological origins. This approach was first proposed by Boers (2001) and is believed to foster learning as a subtype of semantic elaboration. This can be explained by two complementary theories of learning and memory, namely, "Dual coding theory" (Paivio, 1990) and "levels of processing theory" (Cermak & Craik, 1979).

The fundamental premise of the "levels of processing theory" posits that the ability to retain information is contingent upon the depth or extent of cognitive processing applied to the material being remembered. Superficial processing only results in shallow, temporary retention, whereas deep processing leads to effective and enduring memory storage. The significance of this theory in relation to the advantageous impact of etymological elaboration is that learners, while identifying the underlying source domains of idiomatic expressions, engage in a certain level of cognitive effort. This process of "identifying the source" is considered to occur at a more profound level of processing compared to mere rote learning, and according to the principles of levels of processing theory, deep-level processing can enhance memory storage (Boers, Demecheleer, & Eyckmans, 2004).

To substantiate their hypothesis on the effective role of Etymological Elaboration, Boers and his colleagues carried out a series of experiments, which are briefly summarized here. Boers (2001) specifically investigated the impact of the "identify-the-source" task on the retention of idiomatic idioms among learners. The study involved two parallel groups of Dutch-speaking college students (N = 54), who were instructed to consult a dictionary and explain the meaning of ten idiomatic idioms. Subsequently, the control group was assigned the task of providing contexts for each idiom, while the experimental group was tasked with hypothesizing about the origins of each idiom. Both tasks required cognitive effort and deep processing, but the "identify-the-source" task aimed to stimulate mental imagery and encourage dual coding. In subsequent tests conducted after 1 week and 5 weeks, measuring participants' recall in a gap-fill exercise and their retention of idiom meanings respectively, the experimental group achieved significantly better results than the control group. Hence, it can be concluded that the experimental group clearly derived benefits from the "identify-the-source" task. The authors were inspired by the promising results obtained from this conventional experiment to later extend the application of etymological elaboration using a computer-aided program called "Idiom-teacher". Moreover, the study's findings revealed that etymological elaboration could greatly enhance learners' comprehension and retention of idioms. Furthermore, Boers, Demecheleer and Eyckmans (2004) and Boers, Eyckmans and Stengers (2007) also emphasized the positive effect of imparting learners with the origins of idioms.

In the context of Iran, where this research was conducted, a significant amount of work has been done by researchers interested in exploring the impact of etymological elaboration. Noroozi and Salehi (2013) conducted a study to investigate the potential effects of etymological elaboration and rote memorization on the learning of English idioms by Iranian EFL learners. The study involved sixty female who were divided into two groups. The experimental group received the idioms along with relevant etymological elaborations, while the control group was asked to memorize the same idioms without any additional explanations for a total of fifteen sessions. The mean scores of both groups on the posttest were compared with results indicating that the elaboration of idioms was significantly more effective in facilitating learning compared to rote memorization alone. In a similar attempt, Ahmadi and Zarei (2021) aimed to investigate the impact of linguistic, verbal, and visual mnemonics on enhancing the memory and recognition of English idioms for language learners. A total of 270 intermediate-level EFL learners participated in their study. These participants were divided into nine groups, with each group consisting of several members. The learners were then assigned to one of the three main groups, where they were taught idioms using either linguistic, verbal, or visual mnemonics. The findings indicated significant variations among these instructional strategies in terms of recall, with linguistic mnemonics proving to be the most influential. To further substantiate the efficacy of the aforementioned attention-grabbing technique, this research was conducted with a new design and instrument in spite of being performed in a smaller scale compared to the above-mentioned studies.

III. METHODOLOGY

Subjects: The experiment involved 50 EFL students (30 males and 20 females) who were enrolled in a private language institute. Their ages ranged from 18 to 22, and they were all native speakers of Persian. These students were selected based on their proficiency, as they had successfully passed an international IELTS mock exam with a score of 5 out of 9. Additionally, their scores on the placement test fell between 5 and 6 out of nine, indicating an upper-intermediate to advanced level of proficiency according to the test's rubrics and guidelines.

Instrument: The effectiveness of the proposed strategy was evaluated through a pen and paper test. This test, which includes 15 idioms, was first administered online by Boers, Eyckmans and Stengers (2007). It comprises three sections: a matching exercise where the idioms and their origins are matched, a multiple-choice exercise that tests understanding of the idioms' definitions, and a gap-fill exercise that requires the appropriate idioms to complete meaningful sentences. The 15 idioms used in this test are identical to the ones employed in the preceding exercises.

Procedures: The test had not undergone prior testing or validation, necessitating the demonstration of its validity and reliability. To establish its validity, the researcher sought the input of experts to analyze it. Once its validity was confirmed, the test was administered and the data were inputted into SPSS. The reliability of the test was assessed using Cronbach's alpha, which indicated a reliability coefficient of 0.88. Following the confirmation of the test's validity and reliability, it was employed to evaluate the effectiveness of the proposed strategy. It is worth noting that the content of the tests given to the two groups differed slightly. The experimental group's test included a matching exercise on the origins of idioms, where the participants were asked to match the idioms to their origins presented on the right side. Explanations contained hints to avoid pure guesswork. Answer key was provided for checking, but no changes were allowed. The control group's test,

however, did not feature this type of exercise. The other two exercises were the same for both tests. In the multiple-choice task, participants had to choose the correct definition for each of the 15 idioms from four choices. Answer key was provided for reference. Finally the gap-fill exercise was administered where students were given 15 meaningful sentences with idioms and asked to complete the idioms using suitable keywords. This task assessed long-term retention of idioms. Sentences were clear but not the definitions of the idioms. The deliberate distinction between the tasks for the experimental and control groups aimed to determine whether providing the experimental subjects with etymological explanations would yield any disparities in their comprehension and retention scores compared to those of the control group.

Statistical procedures: Once the data, encompassing the points attained by participants in both groups during the exercises, was collected, an independent samples t-test was conducted to determine the effect of etymological elaboration on learners' comprehension of idioms. Similarly, another independent samples t-test was employed to illustrate the influence of the proposed strategy on learners' retention of idioms. Additionally, the mean and standard deviation for each group were calculated for both variables, comprehension and retention.

IV.   ANALYSIS AND DISCUSSION

Mean scores: The mean scores and standard deviations for both the experimental group and control group are displayed in the subsequent tables. Table 1 showcases the scores achieved on the comprehension task, while the table 2 illustrates the average scores attained on the retention exercise.

Table 1
The mean and standard deviation for comprehension task

Group	Mean score	Standard deviation
Experimental	9.8400	2.70308
Control	6.9600	2.18861
Total	8.4000	2.83563

Table 2
The mean and standard deviation for retention task

Group	Mean score	Standard deviation
Experimental	9.8400	2.70308
Control	6.9600	2.18861
Total	8.4000	2.83563

The t-test: The data obtained from the comprehension and retention tests were analyzed using the SPSS package. The study involved one independent variable (etymological elaboration) and two dependent variables (comprehension and retention). Separate tests were conducted for each dependent variable, and two groups were utilized: control and experimental. The experimental group received the treatment, while the control group did not. To assess the impact of etymological elaboration on the learner's comprehension and retention of idioms, an independent-samples t-test was employed. Consequently, the independent-samples t-test was executed twice, once for the comprehension test and once for the retention test. The results of these two t-tests are presented below.

Table 3
Group statistics for the comprehension task

	code	N	Mean	Std. Deviation	Std. Error Mean
score	Experimental	25	9.8400	2.70308	.54062
	control	25	9.8600	2.18861	.43772

Table 4
Independent samples t-test for comprehension task

	Leven's Test for Equality of Variances		T-test for Equality of Means						
	F.	Sig	t	df	Sig (2-tailed)	Mean Differences	Std. Error Difference	95% Confidence Interval of Difference	
								lower	upper
Equal Variances Assumed	1.027	.316	4.140	48	0.000	2.8800	.69561	1.427861	4.27861
Equal			4.140	46	0.000	2.8800	.69561	1.47983	4.28017

variances not Assumed					

Table 5
Group Statistics for retention task

	code	N	Mean	Std. Deviation	Std. Error Mean
score	Experimental	25	10.7200	3.007221	60144
	control	25	6.4800	3.99082	.79816

Table 6
Independent Samples T-test for Retention Task

	Leven's Test for Equality of Variances		T-test for Equality of Means						
	F.	Sig	t	df	Sig (2-tailed)	Mean Differences	Std. Error Difference	95% Confidence Interval of Difference	
								lower	upper
Equal Variances Assumed	2.014	.162	4.243	48	0.000	4.24000	.99940	2.23057	6.24943
Equal variances not Assumed			4.243	44.610	0.000	4.24000	.99940	2.22662	6.25338

The impact of delving into the origins of words on the learner's understanding and retention of idioms can be demonstrated by examining the average scores of both the experimental group and the control group. The initial hypothesis of the study posits that providing learners with the original, literal usage of idioms may enhance their comprehension of their figurative meaning. To determine whether this hypothesis is upheld or rejected, we must analyze the average scores obtained from the comprehension task (or the task of identifying meaning). It is evident that the participants in the experimental group achieved an average score of 9.84 (SD = 2.7), whereas the control group obtained an average score of 6.96 (SD = 2.1). This indicates that those participants who received an explanation of the etymology of idioms were more successful in comprehending them compared to those who did not receive such explanations. Therefore, it can be concluded that delving into the origins of words can assist learners in deciphering the figurative meaning of idioms. By referring to the results of the independent samples t-test, we can confirm that our conclusion is upheld and the beneficial impact of exploring etymology is once again affirmed ($p = 0.00 < 0.05$).

The second hypothesis explores whether providing learners with etymological explanations can contribute to their long-term retention of idioms. To assess this hypothesis, we must analyze the mean scores obtained from the retention task, specifically the gap-filling task. The experimental group achieved a mean score of 10.72 (SD = 3.00), while the control group attained a mean score of 6.48 (SD = 3.99). Similar to the comprehension task, we observe that participants who received etymological explanations outperformed those who only received contextual information. This demonstrates the positive impact of incorporating etymological elaboration on idiom retention. Additionally, the results of the independent samples t-test once again provide evidence that etymological explanations significantly influenced retention ($p = 0.00 < 0.05$).

V. CONCLUSION

The findings of the study present positive implications regarding the impact of etymological explanation on the comprehension of idioms. Hence, it can be inferred that by equipping learners with the origins of idioms, their understanding of the idiomatic meaning can be significantly improved in an engaging and insightful manner. Consequently, we recommend English teachers to incorporate this technique within the classroom setting and encourage students to utilize both the etymological explanation and the context to gain a deeper understanding of idiomatic meanings, particularly for idioms with transparent etymology.

Another significant conclusion drawn from this research is that learners of English can enhance their retention of idioms when they are provided with information about their literal usage and etymology. This implies that in classroom contexts, English teachers can introduce the etymology of idioms to students prior to instructing them to memorize these idiomatic expressions through repetitive learning methods.

This study holds immense value as it presents a novel and intriguing method for English language teachers and enthusiasts to explore idiomatic expressions. Consequently, educators who include idioms in their curriculum can enhance their students' understanding by prompting them to reflect on the origins of these idioms before attempting to grasp their meanings. Furthermore, delving into the etymology of idioms can facilitate

long-term retention, as it evokes a tangible mental image that can be stored alongside the verbal manifestation of the idiom in memory.

REFERENCES

[1]. Ahmadi, M., & Zarei, A. A. (2021). On the Effects of Linguistic, Verbal, and Visual Mnemonics on Idioms Learning. Language Related Research, 12(5), 279-303.
[2]. Boers, F. (2001). Remembering figurative idioms by hypothesising about their origin. Prospect, 16(3), 35-43.
[3]. Boers, F., Demecheleer, M., & Eyckmans, J. (2004). Etymological elaboration as a strategy for learning idioms. Vocabulary in a second language: Selection, acquisition and testing, 53-78.
[4]. Boers, F., Eyckmans, J., & Stengers, H. (2006). Motivating multiword units: Rationale, mnemonic benefits, and cognitive style variables. EUROSLA yearbook, 6(1), 169-190.
[5]. Boers, F., Eyckmans, J., & Stengers, H. (2007). Presenting figurative idioms with a touch of etymology: More than mere mnemonics? Language teaching research, 11(1), 43-62.
[6]. Cermak, L. S., & Craik, F. I. (1979). Levels of processing in human memory. Lawrence Erlbaum.
[7]. Clark, J. M., & Paivio, A. (1991). Dual coding theory and education. Educational psychology review, 3, 149-210.
[8]. Cohen, G., Le Voi, M. E., & Eysenck, M. W. (1986). Memory: A cognitive approach. (No Title).
[9]. Detges, U. (2022). Cognitive Semantics in the Romance Languages. In: Oxford University Press.
[10]. Kovecses, Z., & Szabco, P. (1996). Idioms: A view from cognitive semantics. Applied linguistics, 17(3), 326-355.
[11]. Lakoff, G., & Johnson, M. (2008). Metaphors we live by. University of Chicago press.
[12]. Lakoff, G., & Women, F. (1987). Dangerous Things. In: University of Chicago Press.
[13]. Langacker, R. W. (1987). Foundations of cognitive grammar: Volume II: Descriptive application.
[14]. Langacker, R. W. (2008). Cognitive grammar. Cognition and Pragmatics, 77.
[15]. Li, Z., & Liontas, J. I. (2023). English VP Idiom Learning and WeChat: Developing Idiomatic Competence among Chinese EFL Learners. Iranian Journal of Language Teaching Research, 11(2), 95-117. https://doi.org/10.30466/ijltr.2023.121332
[16]. Noroozi, I., & Salehi, H. (2013). The effect of the etymological elaboration and rote memorization on learning idioms by Iranian EFL learners. Journal of Language Teaching and Research, 4(4), 845.
[17]. Paivio, A. (1990). Mental representations: A dual coding approach. Oxford university press.
[18]. Seidl, J., & McMordie, W. (1988). English idioms. (No Title).