
Effectiveness of Web-based Tools in Learning Idiomatic Expressions: A CALL Study

Hassan Soleimani^{1*}, Ali Asghar Rostami Abusaeedi², Saeed Kheiri³, Mehdi Karami⁴

^{1*}Associate Professor, Department of TEFL and English Literature, Payame Noor University, Tehran, Iran

²Professor, Department of English Language and Literature, Shahid Bahonar University of Kerman, Iran

³Ph.D. Education Ministry, Alborz, Iran

⁴Ph.D. in TEFL, Education Ministry, Hamedan, Iran

Received: December 23, 2022

Accepted: April 05, 2023

Abstract

With the development of technology and due to the COVID-19 Pandemic, most of the ELT courses in Iran have shifted to online learning since March 2020. Therefore, this study aimed to determine the effectiveness of four online technological tools for teaching idioms. To this aim, 106 pre-intermediate learners of English took part in the study. A language proficiency test was administered to them to ensure the homogeneity of the sample. A total number of 80 students who had been selected as the final participants were randomly assigned to four experimental groups: In group A, concept maps of the same idioms were drawn with the help of an online mind-map maker. Group B was presented with online flashcards which included definitions and examples of idioms. Group C received etymological elaboration from an online dictionary of the origins of idioms, and group D listened to online audio stories of all the idioms. Each group of participants received the treatment for 12 sessions and took part in the pretest, posttest, and delayed posttest. Results of a one-way ANOVA indicated that the most gains were achieved by story-telling. The findings imply implications for teachers, syllabus designers, and materials developers in using appropriate instructional methods for teaching idioms.

Keywords: Concept Mapping; Definition; Etymological Elaboration; Idiom Learning; Story-Telling; Web-based tools

INTRODUCTION

The knowledge of idioms is vital in language proficiency (Lantolf & Thorne, 2006). They are ambiguous parts of languages that do not have established meaning, and understanding them is tough (Spears, 2005). There is a general consensus that idioms “make up a large part of any discourse” (Conklin & Schmitt, 2008, p. 74) and are crucial factors in everyday language (Meunier & Granger, 2008). Corpus linguists have shown that idioms and other prefabricated phrases make up about 59% of spoken and 52% of written English (Erman & Warren, 2000).

The expansion and richness of idioms appear to be a lifelong pursuit of people who are determined to fully master a language, since they represent a society's traditions, cultural values, essential characteristics, and social attitudes and norms (Cakir, 2011). Additionally, Nattinger and De Carrico (1992) regarded idioms as the most significant subdivision of the lexical phenomenon of formulaic language. The argument is that the skill and capability to use formulaic language such as idioms is essential for those who want to use English like a native speaker. Therefore, mastering idioms along with vocabulary may be “just what the doctor ordered”.

*Corresponding Author's Email:

h_soleimani@pnu.ac.ir

Despite this crucial role played by idioms and their ubiquity in daily communication, teaching and learning them is notoriously tricky in EFL classrooms (Chen & Lai, 2013; Liu, 2008; Rizq, 2015). There are some reasons accounting for EFL learners' problems with idioms. First, the meanings of the individual words themselves are different from the meanings of idiomatic expressions as wholes. This inconsistency hinders both comprehension and noticing in the input (Macis & Schmitt, 2017; Martinez & Schmitt, 2012). On the other hand, techniques used for teaching idioms are, in some cases, in the form of memorization and rote learning. Students are simply presented with a list of phrases to memorize by continuous repetition (Chen & Lai, 2013). This approach is evaluated by Chen and Lai (2013) as time-and-effort-consuming since learners attempt to learn the idioms without associations or prior knowledge. That is why an EFL learner may tend to say: "Wow, it is raining heavily" while a native speaker would utter: "Oh, gosh! It's nice weather for ducks." One may "feel like a fish out of water" if they have not heard of the idiom.

From the brief introduction, the importance and difficulties of teaching idioms can be distinguished. Therefore, finding more efficient ways to facilitate the development and mastering of L2 idioms is this article's focus. It seems that, with effective web-based multimedia teaching and learning procedures in online classes, EFL students can acquire the knowledge to sound natural when using idioms (Ahmadi et al., 2020).

LITERATURE REVIEW

Mayer's Cognitive Theory of Multimedia Learning

To date, numerous studies have investigated techniques and activities of teaching idioms (e.g., Razmjoo et al., 2016; Tezci et al., 2007; Zarei, 2020). However, over the past two decades, significant advances in web-based multimedia education have revolutionized the process of teaching language and enhancing student retention of vocabulary (Soleimani, 2021). Thus, much of the current literature on techniques for teaching idioms pays particular attention to online multimedia instruction.

Different theories exist in the literature regarding the best uses of multimedia in computer-assisted language learning. Paivio's Dual Coding Theory (Paivio, 1990) and Mayer's Multimedia Learning Theory (Mayer, 2001) have both presented a clear rationale for the use of pictures, videos, charts, or printed words in language teaching. Mayer (2001) has developed a model (Figure 1) that recognizes both audio-visual and verbal-nonverbal modes. For example, visual information and spoken words would enter sensory memory through the eyes and ears. If some or all of the information is attended to, they will move to working memory as sounds and images that will then be coded as verbal and pictorial information. In fact, in the working memory, visual and verbal information is integrated with other information and with prior knowledge that has been retrieved from long-term memory.

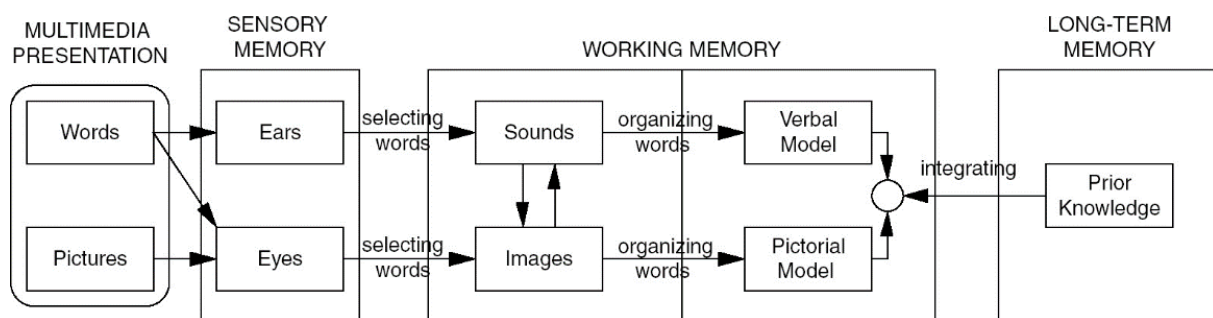


Figure 1

Mayer's Cognition Theory of Multimedia Learning

Based on his cognition theory, Mayer (2001) posits that multimedia instruction is a kind of active learning that helps language learners learn more deeply and allows them to understand the material presented. This happens because it involves carrying out a set of cognitive processes taking advantage of two separate channels. These processes are described as follows: Learners

1. Select relevant words from the text or narration presented;
2. Then select relevant images from the illustrations presented;
3. Organize the words into a coherent verbal representation;
4. And then organize the images into a coherent visual representation, and finally
5. Integrate the verbal and visual representation and their prior knowledge (p. 41).

Techniques for Teaching Idioms

In response to the challenges with learning idioms, recent research has shown that idiomatic expressions must be acquired via consciousness-raising and contextualization (Oakhill et al., 2016; Wang & Plotka, 2018). Nation and Meara (2002) support this point of view asserting that through consciousness-raising and deliberate learning much more concentration is employed than incidental learning. Besides, teaching idioms has been considered a part of vocabulary teaching during the past decades, and further procedures and techniques have emerged in teaching idioms maintaining that idioms must be contextualized (Tran, 2012).

As Maisa and Karunakaran (2013) maintain, utilizing particular techniques in teaching the idiomatic expressions can probably enable the learner to make meaning and recognize the respective language functions. Also, they believe that strategic and procedural teaching of idioms can enhance speaking skill and may motivate learners to hypothesize their contextualized senses. Idioms can be integrated into vocabulary instruction by involving them in practical techniques (Nation, 2022). The existing literature on different ways of teaching idioms is extensive and focuses mainly on making L2 learners interested in using and learning idioms.

Among the techniques are definition and exemplification, etymological elaboration, concept mapping, and story-telling (Zarei, 2020).

Concept mapping and story-telling techniques are both associated with Mayer's audio-visual and verbal-nonverbal modes. The former technique integrates charts and printed words, and the latter contains audio and pictorial aids. However, learners who choose definition and exemplification and etymological elaboration for learning idioms do not benefit from two separate audio-visual channels.

Definition and exemplification

Research shows that techniques such as exemplification and definition can be used to bring about development in idiom knowledge if they are taught in context (Nunan, 1999). Data from several sources have identified the integration of technology and multimedia tools within online EFL classes associated with learning idioms. Obermeier and Elgort (2021) compared the computer-assisted deliberate and contextual L2 idiom learning conditions. In the deliberate condition, Japanese learners of English studied idioms online on Quizlet® with an English definition and using flashcards. The results were more clearly favoring the flashcards learning in the deliberate condition. Learning the definition of an unfamiliar idiom with flashcards is a simple yet effective process. Each retrieval strengthens the association between the idiom and its figurative meaning.

Story-telling

Another technique that is thought to be useful for idiom teaching is story-telling, which was investigated in a study conducted by Rohani et al. (2012) with 60 intermediate freshmen studying English as their major at Shahid Bahonar University of Kerman, Iran. The results showed the group that was exposed to the video-graphic context via story-telling outperformed the text group significantly.

Etymological elaboration

From the techniques, definition and exemplification and story-telling are clear in meaning. However, etymological elaboration and concept mapping may be vague in some cases, and

they are required to be defined. Associating the meaning of idioms with their original usage, which is called etymological elaboration, will be another way to teach idioms (Boers, 2004). As defined by Liu (2008), contextualizing idiomatic expressions with the conceptualization of their formation and origination is called etymological elaboration. Baleghizadeh and Mohammad Bagheri (2012) illustrated that etymological elaboration had a substantial impact on intermediate level EFL students' comprehension and retention. In the Japanese EFL context, Vasiljevic (2015) conducted a study with 36 first-year university students (22 females and 14 males) on the impact of etymological elaboration on the learners' comprehension of idioms. Imagery-based technology was used for teaching English idioms. Etymology was found to promote the retention of idiom meaning.

Concept mapping

Concept mapping, which was first developed by Novak (1991), has been identified as 'metacognitive resources' that enable learners to emphasize what they know via the visual representation of meanings and associations between concepts (Mintzes et al., 2005). In addition, Chularut and DeBacker (2004) suggested that concept mapping is "a tool to represent the interrelationships among concepts in an integrated, hierarchical manner" (p. 249). Actually, a concept map is a visual means for structuring and showing expertise, and it is applied as an adjunct for learning and teaching idioms (Stoica et al., 2011). In the area of vocabulary teaching, several authors have considered the effects of using electronic concept maps. Al-Jarf (2009) carried out a number of investigations into the efficacy of mind-mapping software in helping EFL freshman students understand, retain, apply, and relate terms that share the same root. Kim and Kim (2012) used digital mind maps to assess their effectiveness in improving vocabulary learning outcomes of students in elementary school. The findings showed that the mind maps helped students to find and memorize vocabulary rapidly. In a study that set out to determine the effectiveness of e-mind mapping on learning Arabic vocabulary in

Kuwait, Alwattar and Al-Balhan (2018) also demonstrated that when sixth-grade students used electronic mind-mapping strategies, their level of achievement in vocabulary skills increased. In the same vein, in the Iranian context, Salehi and Soola (2018) examined the effectiveness of mind maps on learning idioms by sixty female Iranian EFL learners. The findings suggested the positive effects of utilizing mind maps on learning idioms.

Very few investigations of the effectiveness of different idiom learning techniques (comparatively in a study) on learning and retention of idiomatic expressions in an online EFL context like Iran have been undertaken. Research in idiom learning and retention with the help of online technology tools is underexplored. In addition to the restricted number of studies conducted in the realm of idiom learning and teaching, the effect of definition, concept mapping, story-telling, and etymological elaboration on EFL learners' idiom learning has not been investigated in one study. In addition, although L2 learners need to learn how to use idioms naturally and fluently, a large number of research studies have been conducted on understanding idioms (e.g., Abolfazli Khonbi & Sadeghi, 2017; Haghshenas & Hashemian, 2016; Hung, 2010). In fact, there is still a paucity of research in this field, and this study attempts to shed light on the idiom teaching techniques for Iranian EFL teachers.

Due to the importance of idioms and the influential roles of some teaching techniques in overcoming difficult areas such as idioms and given the widespread use of technology for remote learning after the outbreak of Covid-19 in March 2020, the current study aimed at determining which techniques of teaching idioms such as definition and exemplification, concept mapping, story-telling, and etymological elaboration can help learners best in the practice of learning idiomatic language in online EFL classes. In other words, the current study tried to compare the effect of different web-based techniques of teaching idioms on improving the performance of Iranian EFL learners in using idioms in order to answer the research question posed in our study: Which

web-based idiom teaching technique is the most effective in comprehension and retention of idioms by pre-intermediate proficiency Iranian learners of English: definition and exemplification, etymological elaboration, concept mapping, and story-telling?

METHODOLOGY

Participants

The preliminary participants included 106 pre-intermediate EFL female students in language centers of Karaj aged 29 to 32. They were homogenized in terms of their English language level. All the participants took the placement test, and those with scores more than one Standard Deviations (*SD*) above and below the mean ($M = 17.20$) were chosen as the final participants. The outcome was 84 EFL female students, out of whom 80 were selected to be divided into four equal 20-participant groups.

Online Learning Environment

This study was conducted from September 2022 to December 2022 in language centers of Karaj, Iran. Classes were hosted on BigBlueButton (<https://bigbluebutton.org/>). This online teaching platform allows the instructors and learners to use a multi-user whiteboard, breakout rooms, public and private chat, polling, shared notes, audios, webcams, slides, and screen sharing. Participants were in 5 intact classes chosen after the results of the placement test via non-random sampling.

Instruments and Materials

The idiom coursebook

In this study, the book “Can You Believe It? (Book 2)” written by Huizenga (2000), was chosen to teach the idioms. This book combines a holistic approach to reading with a thorough treatment of high-frequency idioms, phrasal verbs, and fixed expressions. It is the last one of the three-part series and is written for pre-intermediate level students. This book contains idioms embedded in true life stories from around the world, which seemed to capture students' interests. The idioms are printed in bold, and their definitions are given at the end of each story.

Nelson English Language Test

Nelson Language Proficiency Test (400 A) was administered to ensure the homogeneity of the participants. In this test, there are 50 multiple-choice items organized into four parts – grammar (two sections), vocabulary, and reading comprehension. The time allotted for the test is 40 minutes. In 1976, the reliability of Nelson proficiency test was reported to be 0.87 (Fowler & Coe, 1976).

The idiom tests

A test was devised to monitor the participants' metaphorical competence in the form of idiomatic expression comprehension. This test included 40 multiple-choice items originating from the covered idioms during the treatment stage. Each item was given 1 point, and the time allotted for the test was 40 minutes. This test required the participants to choose the meaning of idioms from the given options. It was piloted to verify whether the wording and clarity of the test caused any problems for the respondents. This researcher-made idiom test was used as the pretest before the treatment and as the posttest after the treatment. However, the order of the questions and choices were altered in the post-test to eradicate the possibility of test practice effect as far as possible. The calculated reliability of the test through Cronbach's Alpha was 0.89, which showed the high reliability of the test. In terms of validation, the test was judged by five experts in the field of English language teaching. Supported by V Aiken's (1985) index of 0.88–1.00, the content validity was good.

Procedures

The following procedures were employed in order to collect the essential data in the present study. First, Nelson English Language Proficiency Test 400 A was administered online to choose participants at similar proficiency levels two weeks before the onset of the treatment. After that, the chosen idioms were utilized as a pretest one week prior to the experiment. Then, the participants attending conversation classes on BigBlueButton were randomly assigned to four experimental groups. In all groups, the students were first presented with idioms from the book “Can You Believe It? Book 2”. In

class A, concept maps of the idioms were drawn by teachers and students with the help of MindMup®, an online mind-map maker (<https://www.mindmup.com>), based on particular themes such as animals or colors. They got this through screen sharing. In class B, definitions and examples of the idioms, taken from *American Heritage Dictionary of Idioms*, were imported into Cram®, a web-based flashcard maker (<https://www.cram.com/flashcards/create>). The participants were given the link to the online flashcards. There they could learn, memorize, and test the idioms. In class C, the teacher introduced the idioms elaborating on their etymology using *A Dictionary of the Origins of English Idioms* (<https://www.idioms.online>), and in class D, for each idiom, online audio stories were played using *A Dictionary of the Stories of English Idioms*.

The treatment lasted for 12 sessions in a two-month period. Eight idioms were taught in each session. In other words, a total of 96 idioms were taught in these treatment sessions for each group. Beside the homogeneity test, three tests as pretest, posttest, and delayed posttest were also given to the participants under study. It is worth mentioning that the pretest was administered one week before the onset of the study, and the posttest was administered one

week after the treatment, whereas the delayed one was used four weeks after the treatment.

Data Analysis Procedure

Shapiro Wilks test showed that the data were normally distributed. Thus, a parametric test, a one-way Analysis of Variance, was run to answer the research question, that is, to see which web-based techniques of teaching idioms can help EFL learners most to perform better in the comprehension and retention of idioms. The reason for running ANOVA was also the existence of more than two groups in the treatment. Definitions and examples, concept mapping, story-telling, and etymological elaboration techniques were the independent variables, and comprehension and retention of idioms was the dependent variable.

RESULTS

There were two sets of quantitative data collected in the study. In particular, the pretest scores of the participants were obtained to assess a set of the least-known idioms for subsequent learning activities. The posttest scores were utilized to determine the degree of idiom learning through four different techniques. Table 1 shows the descriptive statistics for the pretest.

Table 1
Descriptive Statistics for Pretest

Groups	N	Range	Min	Max	M	Std. Error	SD	Variance
Concept-mapping	20	7.00	3.00	10.00	7.15	.514	2.30	5.29
Definition	20	4.00	5.00	9.00	7.12	.311	1.30	1.90
Etymology	20	6.00	4.00	10.00	7.10	.434	1.90	3.70
Story-telling	20	7.00	3.00	10.00	7.13	.414	1.80	3.40

According to Table 1, the mean of Class A's pretest scores was 7.15, and the mean of Class B's pretest scores was 7.12. The mean of Class C's pretest scores was 7.10, and the mean of Class D's pretest scores was 7.13. Table 2

examines the significance of these differences between the groups. As Table 2 shows, there was no significant difference in idiom knowledge among the groups at the onset of the treatment.

Table 2
ANOVA Results of Pretest

Pretest Scores	Sum of Squares	df	Mean Square	F	Sig
Between Groups	09.45	03	7.11	1.10	.47
Within Groups	83.50	76	1.94		
Total	89.95	79			

Dependent Variable: Pretest

As it is displayed in Table 2, the significance of these differences was bigger than 0.05, which means that all groups were almost the same. In other words, there was a non-significant difference in the learners' performances in the pretest. After the pretest, different techniques of teaching idioms were given to each

class as the treatment. After the treatment, the posttest, which the same researcher-made idiom test, was administered to the learners. It is noteworthy that the sequence of the questions and choices was altered in the posttest to eliminate the practice effect. Table 3 shows the descriptive statistics for the posttest.

Table 3
Descriptive Statistics for the Immediate Posttest

Groups	N	Range	Min	Max	M	Std. Error	SD	Variance
Concept-mapping	20	08.00	16.00	24.00	20.6	.563	2.52	06.3
Definition	20	10.00	18.00	28.00	22.8	.701	3.13	09.8
Etymology	20	16.00	20.00	36.00	25.9	1.04	4.65	21.6
Story-telling	20	10.00	30.00	40.00	34.7	.585	2.61	06.8

As illustrated in Table 3, the mean of Class A (concept-mapping group) in posttest was 20.6, and the mean of Class B (definition and exemplification) was 22.8. The mean of Class C (etymological group) in the posttest was 25.9, and the mean of Class D's posttest scores (story-telling group) was 34.7. Now, the significance of these differences in the posttest was examined. There was homogeneity of variances, as assessed by the Levene's test for equality of

variances, $p = .15$. Thus, the assumption of homogeneity of variances was not violated.

In order to explain which of the techniques used for idiom instruction in the short run was the most efficient technique, a one-way between-groups ANOVA was conducted for the comparison of the posttest scores of the four groups. As Table 4 shows, there was a statistically significant difference among the four groups after the posttest of idiom in the short run, $F(3, 76) = 17.12, p = .00$.

Table 4
Tests of Between-Subjects Effects

Posttest Scores	Sum of Squares	df	Mean Square	F	Sig
Between Groups	329.10	3	127.30	17.12	.000
Within Groups	421.20	76	7.31		
Total	678.35	79			

Dependent Variable: Immediate Posttest

Table 5
Results of Post Hoc in the Short Run

Posttest Scores Tukey HSD (I) Group 1	(J) Group1	Mean Difference (I-J)	Std. Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
Story-telling	Etymology	5.8	2.1	.04	-10.4	6.51
	Definition	7.8*	2.2	.00	7.5	9.56
	Concept map	9.6*	2.2	.00	-.23	6.70
Etymology	Story-telling	5.8	2.1	.04	6.51	-10.4
	Definition	-3.1	2.3	.03	-4.54	5.56
	Concept map	9.1*	2.2	.00	.64	5.39
Definition	Story-telling	7.8*	2.2	.00	9.56	7.54
	Etymology	-3.1	2.3	.03	5.56	-.54
	Concept map	4.1	2.7	.03	7.09	-4.54
Concept map	Definition	4.1	2.7	.03	-4.54	7.09
	Story-telling	9.6*	2.2	.00	6.70	-.23
	Etymology	9.1*	2.2	.00	5.39	.64

* The mean difference is significant at the 0.05 level.

To find out where exactly the differences among the four groups lay, the Tukey post-hoc test was conducted. Table 5 examines the significance of the differences among the learners in four classes in idiom learning in the short run from the pretest to the immediate posttest.

According to Table 5, the significance of these differences in the groups' scores in the immediate posttest was less than 0.05, which means that there was a significant difference in the learners' performances in idiom learning in the immediate posttest. By comparing pre- and posttests, the researchers could see what participants actually learned from the techniques that were used in each class. As shown in Table 5, since p -values were less than alpha, there were

significant differences between the means of the pretest and posttest scores in all four classes, which reveals the effectiveness of the treatments used for the classes. Moreover, the performance of students in classes A, B, C, and D increased based on the mean differences from the pretest to the posttest. Therefore, it can be concluded that first story-telling, second etymological elaboration, third definitions, and finally, concept-mapping helped EFL learners outperform in learning idioms.

The present study aimed to discover the roles of different modes of teaching techniques on idiom retention of EFL learners in the long term; then, a delayed posttest was run to the groups under study. Table 6 shows the descriptive statistics of the delayed posttest.

Table 6
Descriptive Statistics for the Delayed Posttest

Groups	N	Range	Min	Max	M	Std. Error	SD	Variance
Concept-mapping	20	10.00	14.00	22.00	18.4	.459	2.52	6.0
Definition	20	12.00	16.00	24.00	21.1	.711	3.02	8.4
Etymology	20	16.00	18.00	32.00	24.8	1.49	4.39	19.3
D) Story-telling	20	16.00	30.00	38.00	33.5	.506	2.87	5.8

According to Table 6, the mean of Class A's posttest scores was 18.4, and the mean of Class B's posttest scores was 21.1. The mean of Class C's posttest scores was 24.8, and the mean of Class D's posttest scores was 33.5. Now, the significance of these differences in the delayed posttest was examined. The value of significance according to Levene's test of equality of variances was $p = .14$. It shows that the assumption of homogeneity

of variances in delayed posttest was not violated. As Table 7 shows, there were statistically significant differences among the four groups after delayed posttest of idiom in the long run, $F(3, 76) = 15.04$, $P = .00$.

Table 8 examines the significance of these differences between the learners in the four classes in idiom learning in the long run (one month after treatment) in idiom retention.

Table 7
Tests of Between-Subjects Effects

Delayed Scores	Sum of Squares	df	Mean Square	F	Sig
Between Groups	314.90	3	124.24	15.04	.000
Within Groups	416.30	76	7.51		
Total	692.40	79			

Dependent Variable: Delayed Posttest

Table 8
Results of Post Hoc in the Long Run

Posttest Scores		95% Confidence Interval				
Tukey HSD	(J) Group1	Mean Dif- ference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
(I) Group1						
Story-telling	Etymology	6.30	2.10	.07	-10.32	5.43
	Definition	7.14*	2.13	.00	7.45	10.75
	Concept map	8.99*	2.13	.00	-.21	6.96
Etymology	Story-telling	6.30	2.10	.07	5.43	-10.32
	Definition	-4.10	2.39	.06	-3.45	5.55
	Concept map	8.97*	2.13	.00	.64	5.38
Definition	Story-telling	7.14*	2.13	.00	10.75	7.45
	Etymology	-4.10	2.39	.06	5.55	-3.45
	Concept map	4.71	2.34	.05	7.00	4.4
Concept map	Definition	-4.74	2.64	.05	4.4	7.00
	Story-telling	8.99*	2.19	.00	6.96	-.21
	Etymology	8.97*	2.19	.00	5.38	.64

*The mean difference is significant at the 0.05 level.

According to Table 8, in the long run, the significance of these differences in some of the groups in idiom retention was less than 0.05, which means that there were significant differences in the learners' performances in the delayed posttest between some of the groups. Based on the multiple comparisons as well as the mean comparisons, it can be inferred that in idiom retention, the order of scores from high to low was as follows: story-telling, etymological elaboration, definitions, and concept map. Very similar to the results obtained from the immediate posttest, the influence of the four techniques was the same in idiom retention, and the techniques helped EFL learners outperform in idiom retention in the long run.

DISCUSSION

The present study attempted to investigate which of the four different web-based techniques of teaching idiomatic language (definitions, concept mapping, story-telling, and etymological elaboration as the independent variables) has the most effect on Iranian EFL learners' idiom comprehension and retention (as dependent variable). As indicated by the results, both in the short and long runs, story-telling on the online learning platform and with the help of online audio stories had a significant effect on EFL learners' idiom learning and retention of it and was found to be the

most effective technique in increasing learners' comprehension of idioms across time.

The findings were in line with Meri-Yilan's (2020) research findings in a digital task-based classroom stating that story-telling is an efficient teaching technique for nonnative instructors, and it could significantly improve learners' speaking abilities. Hamid Zade and Mohamadi Zanozaq (2018) comparatively studied the effect of storytelling and text reconstruction on Iranian learners' comprehension of Idiomatic expressions. They reported that storytelling facilitated the process of learning idioms. It had significantly positive effects on learners' comprehension of idioms. This improvement may be due to the fact that such rhetorical techniques as story-telling can keep the learners motivated and interested in following the story, sharing their feelings, and consequently being involved in the learning process. This happens because story-telling is replete with elements that create apt conditions for deep involvement (Amin Afshar & Mojavezi, 2017), expose the learners to new language, promote their motivation and willingness to involve in different tasks, and pave the ground for acquiring the target language unconsciously and almost effortlessly (Kirsch, 2016). Another justification for the effect of story-telling can be the influential role of pushed input that assists learners in developing a reading habit which

can give them the experience they need in communicating their ideas and producing sentences in the form of stories using the instructed idioms (Kirsch, 2016). In fact, some researchers have found that the weakest learners are often the most adept at story-telling (e.g., Miller & Pennycuff, 2008; Sneddon, 2008). Therefore, this technique helps students to know how idioms are employed in real-life like concepts.

Furthermore, Mayer's (2001) multimedia and modality principles can justify this result. Mayer (2001) suggested that information should be presented in both words and pictures/audio/video instead of in words only (multimedia principle). His modality principle recommends presenting words as narration instead of on-screen text. Story-telling technique for teaching idioms contains audio-visual aids, and idioms are presented as narration. Nevertheless, the results of the current study in terms of the effectiveness of story-telling technique on idiom comprehension and retention are in conflict with a number of studies, which confirmed the noteworthy role of etymological elaboration in idiom comprehension in comparison to story-telling (Bagheri & Fazel, 2010; Baleghizadeh & Mohammad Bagheri, 2012; Boers et al., 2007). One explanation for the conflict can be the learners' level of knowledge.

In this study, etymological elaboration that was carried out with the help of an online dictionary of the origins of idioms can also be interpreted as a crucial technique in increasing idiom comprehension in online learning environments. Comprehending and retaining idioms through etymological elaboration is not yet known. Conceptual Metaphor Theory (Boers, 2001) supports the findings, suggesting that idioms are not simply sequences of words with an abstract meaning. Instead, their meaning can be attributed back to a particular scene describing the first context from which the idiom was extracted (etymological elaboration). Furthermore, historical backgrounds can be a useful asset for associating and anchoring the idioms with the learners' previous knowledge.

Instructing the idioms through definition and exemplification cards as well as concept

mapping via an online mind-map maker demonstrated less effect on students' enhancement of idioms comprehension compared with story-telling and etymological elaboration. The reason might be the learners' involvement which can be conducive to more participation and thus a more robust association, whereas in definitions, exemplifications, and concept mapping, the interplay between the class instruction and the world or cultural knowledge is probably weaker and students' involvement may be less likely to occur.

CONCLUSION

The findings showed that EFL learners performed better in comprehending and remembering idiomatic expressions in both short and long runs. First, story-telling, second, etymological elaboration, third, definitions, and fourth, concept mapping were the techniques of teaching idioms that can respectively contribute to better performance in the comprehension and retention of idioms. In online classes, listening to online audio stories of idioms was indicated as the most efficacious technique of idiom teaching. The possible reasons for this finding include the proceeding points. First, story-telling can create a crucial interplay between contextualization and the perception of different types of idioms in the instructional context. Second, it can lead to learners' involvement, which can be conducive to more participation and thus a stronger association while teaching the students not only language and vocabulary, but teaching world knowledge and cultural awareness. Third, story-telling can be regarded as a fundamental technique for sharing knowledge among students as it allows learners to be altered with regard to time and place and helps them to know how idioms are used in real-life like concepts. Finally, by igniting the learners' imagination, this pedagogical tool technique lets them take the driver's seat to talk and interact with others so as to complete the task; thus, it can build language community within a classroom through social interaction.

The findings of the present study imply implications for teachers, course designers, and materials developers in utilizing appropriate instructional tasks and techniques for teaching

idioms. The main implication of this study for language teachers is that by being aware of efficacious techniques in teaching idioms adapted and applied to online classes, instructors may put them into practice to supply students with more idiom instruction in virtual learning environments. Teachers of pre-intermediate proficiency learners can make the instruction of idioms more exciting and effective by letting them listen to online short stories that teach the idioms in context. The web-based short stories for teaching idioms provide learners with opportunities to listen, read, and learn the idiomatic language. Accordingly, based on the findings, teachers must make sure they integrate technological tools into their idiom lesson planning, and teaching idioms through digital story-telling should take priority over providing just definitions and examples as well as concept mapping. The findings can also be helpful for course designers in designing tasks for teaching idioms that are based on stories and audio-visual elements. Designing syllabi and materials for online classes with such techniques can help provide mentors with new insights for the odyssey of teaching idioms in a more interactive fashion and make idiom learning a less demanding task.

It should be noted that there were certain limitations in this study including age, gender, and other intervening factors that may not have been properly controlled. Thus, the findings are generalizable only to similar contexts. Age and gender, which have not been taken into account in this study, are two integral variables when it comes to language learning context. These limitations call for further research with a larger population pool from various teaching contexts to delve deeply into how different web-based tools can affect idiom learning and retention.

Further studies should continue exploring our topic. Production of the idioms by L2 learners being instructed in online protocols is another crucial factor that can be investigated through the above-mentioned techniques to see which of them can be more useful in enhancing students' use of idioms in speaking and writing, especially with students at different levels of proficiency. Also, further study can be carried out to probe the effect of the techniques on the

chunks and collocations as a group of words that are taken as single entities. Further research can be done to study the effectiveness of story-telling techniques on idiom learning via online protocols and interviews with the learners under study.

References

- Abolfazli Khonbi, Z., & Sadeghi, K. (2017). Improving English language learners' idiomatic competence: Does mode of teaching play a role? *Iranian Journal of Language Teaching Research*, 5(3), 61-79.
<https://doi.org/10.30466/ijltr.2017.20305>
- Ahmadi, M., Zarei, A. A., & Esfandiari, R. (2020). Linguistic mnemonics affecting learning L2 idioms. *The Journal of Applied Linguistics and Applied Literature: Dynamics and Advances*, 8(2), 219-239.
- Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement*, 45(1), 131-142.
- Al-Jarf, R. (2009, April). *Enhancing freshman students' writing skills with a mind mapping software* [Paper presentation]. The 5th International Scientific Conference, eLearning and Software for Education, Bucharest.
<https://ssrn.com/abstract=3901075>
- Alwattar, N. Y., & Al-Balhan, E. M. (2018). The effectiveness of the e-mind mapping strategy for sixth-grade students' achievement level in learning Arabic vocabulary in Kuwait. *The New Educational Review*, 53, 115-125.
- Amin Afshar, M., & Mojavezi, A. (2017). The effect of aural and visual storytelling on vocabulary retention of Iranian EFL learners. *English Language Teaching*, 10(4), 92-99.
- Bagheri, M. S., & Fazel, I. (2010). Effects of etymological elaboration on the EFL Learners' comprehension and retention of idioms. *Journal of Pan-Pacific Association of Applied Linguistics*, 14(1), 45-55.

- Baleghizadeh, S., & Mohammad Bagheri, M. (2012). The effect of etymology elaboration on EFL learners' comprehension and retention of idioms. *The Southeast Asian Journal of English Language Studies*, 18(1), 23-32.
- Boers, F. (2001). Remembering figurative idioms by hypothesizing about their origin. *Prospect*, 16(3), 34-43.
- Boers, F., Demecheleer, M., & Eyckmans, J. (2004). Etymological elaboration as a strategy for learning idioms. In P. Bogaards & B. Laufer (Eds.), *Vocabulary in a second language: Selection, acquisition and testing* (pp. 53-78). John Benjamins.
- 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.
- Cakir, I. (2011). How do learners perceive idioms in EFL classes? *Ekev Akademi DergisiYil*, 15(47), 371-381.
- Chen, Y.-c., & Lai, H.-l. (2013). Teaching English idioms as metaphors through cognitive-oriented methods: A case in an EFL writing class. *English Language Teaching*, 6(6), 13-20.
- Chularut, P., & DeBacker, T. K. (2004). The influence of concept mapping on achievement, self-regulation, and self-efficacy in students of English as a second language. *Contemporary Educational Psychology*, 29(3), 248-263.
- Conklin, K., & Schmitt, N. (2008). Formulaic sequences: Are they processed more quickly than nonformulaic language by native and nonnative speakers? *Applied linguistics*, 29(1), 72-89.
- Erman, B., & Warren, B. (2000). The idiom principle and the open choice principle. *Text & Talk*, 20(1), 29-62.
- Fowler, W. S., & Coe, N. (1976). *Nelson proficiency tests*. Butler & Tanner Ltd.
- Haghshenas, M. S. M., & Hashemian, M. (2016). A comparative study of the effectiveness of two strategies of etymological elaboration and pictorial elucidation on idiom learning: A case of young EFL Iranian learners. *English Language Teaching*, 9(8), 140-151.
- Hamid Zade, F., & Mohamadi Zanozaq, Z. (2018). The comparative effect of storytelling and text reconstruction on Iranian learners' comprehension of Idiomatic expressions. *Journal of Foreign Language Research*, 8(1), 301-318.
- Huizenga, J. (2000). *Can you believe it? Stories and idioms from real life*. Oxford University Press.
- Hung, P.-F. (2010). *Mental imagery and idiom understanding in adults: Examining dual coding theory*. University of Oregon.
- Kim, S.-y., & Kim, M.-r. (2012). Kolb's learning styles and educational outcome: Using digital mind map as a study tool in elementary English class. *International Journal for Educational Media and Technology*, 6(1), 4-13.
- Kirsch, C. (2016). Using storytelling to teach vocabulary in language lessons: does it work? *The Language Learning Journal*, 44(1), 33-51.
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and genesis of second language development*. Oxford University Press.
- Liu, D. (2008). *Idioms: Description, comprehension, acquisition, and pedagogy*. Routledge.
- Macis, M., & Schmitt, N. (2017). Not just 'small potatoes': Knowledge of the idiomatic meanings of collocations. *Language teaching research*, 21(3), 321-340.
- Maisa, S., & Karunakaran, T. (2013). Idioms and importance of teaching idioms to ESL students: A study on teacher beliefs. *Asian Journal of Humanities and Social Sciences (AJHSS)*, 1(1), 110-122.
- Martinez, R., & Schmitt, N. (2012). A phrasal expressions list. *Applied linguistics*, 33(3), 299-320.
- Mayer, R. E. (2001). *Multimedia learning*. Cambridge University Press.
- Meri-Yilan, S. (2020). Task-based language learning through digital storytelling in a

- blended learning environment. *Education*, 4, 37-43.
- Meunier, F., & Granger, S. (2008). *Phraseology in language learning and teaching*. John Benjamins Publishing Company.
- Miller, S., & Pennycuff, L. (2008). The power of story: Using storytelling to improve literacy learning. *Journal of Cross-Disciplinary Perspectives in Education*, 1(1), 36-43.
- Mintzes, J. J., Wandersee, J. H., & Novak, J. D. (2005). *Teaching science for understanding: A human constructivist view*. Academic Press.
- Nation, I. S. (2022). *Learning vocabulary in another language*. Cambridge University Press.
- Nation, I. S., & Meara, P. (2002). Vocabulary. In N. Schmitt (Ed.), *An introduction to applied linguistics* (pp. 35-54). Edward Arnold.
- Nattinger, J. R., & De Carrico, J. S. (1992). *Lexical phrases and language teaching*. Oxford University Press.
- Novak, J. D. (1991). Clarify with concept maps: A tool for students and teachers alike. *The Science Teacher*, 58(7), 45-49.
- Nunan, D. (1999). *Second language teaching and learning*. Newbury House.
- Oakhill, J., Cain, K., & Nesi, B. (2016). Understanding of idiomatic expressions in context in skilled and less skilled comprehenders: Online processing and interpretation. *Scientific Studies of Reading*, 20(2), 124-139.
- Obermeier, A., & Elgort, I. (2021). Deliberate and contextual learning of L2 idioms: The effect of learning conditions on online processing. *System*, 97, 1-11. <https://doi.org/10.1016/j.system.2020.102428>
- Paivio, A. (1990). *Mental representations: A dual coding approach*. Oxford University Press.
- Razmjoo, S. A., Songhori, M. H., & Bahreman, A. (2016). The effect of two attention-drawing techniques on learning English idioms. *Journal of Language Teaching and Research*, 7(5), 1043-1050.
- Rizq, W. M. (2015). *Teaching English idioms to L2 learners: ESL teachers' perspective* [Master's thesis, College of Liberal Arts]. Culminating Projects in English. https://repository.stcloudstate.edu/eng_etds/19/
- Rohani, G., Ketabi, S., & Tavakoli, M. (2012). The effect of context on the Iranian EFL learners' idiom retention. *International Journal of Linguistics*, 4(4), 52-66.
- Salehi, M., & Soola, V. A. (2018, October). *The effect of mind mapping on learning idioms of Iranian EFL learners* [Paper presentation]. The First International Conference on Issues in English Language Teaching and Literature, Mazandaran University, Sari.
- Sneddon, R. (2008). Young children learning to read with dual language books. *English Teaching: Practice and Critique*, 7(2), 71-81.
- Soleimani, H. (2021). *Computer assisted language learning: Theory and practice*. Payame Noor Publication.
- Spears, R. A. (2005). *McGraw-Hill's dictionary of American idioms and phrasal verbs*. McGraw-Hill Education.
- Stoica, I., Moraru, S., & Miron, C. (2011). Concept maps, a must for the modern teaching-learning process. *Romanian Reports in Physics*, 63(2), 567-576.
- Tezci, E., Demirli, C., & Sapar, V. (2007). English language teaching with an electronic concept mapping. *International Journal of Emerging Technologies in Learning*, 2(2), 1-6.
- Tran, H. Q. (2012). An explorative study of idiom teaching for pre-service teachers of English. *English Language Teaching*, 5(12), 76-86.
- Vasiljevic, Z. (2015). Effects of etymology and pictorial support on the retention and recall of L2 idioms. *Electronic Journal of Foreign Language Teaching*, 12(1), 35-55.
- Wang, X.-l., & Plotka, R. (2018). Lending a helping hand for English-Chinese bilingual children's idiom comprehension and retention: Implications for early

childhood educators. *Early Years*, 38(3), 298-315.

Zarei, A. A. (2020). L2 Idioms: On the effectiveness of teaching techniques. *Teaching English Language*, 14(2), 217-238.

Biodata

Hassan Soleimani is Associate professor of applied linguistics, Department of TEFL and English Literature, Payame Noor University (PNU), Tehran, Iran.

Email: *h_soleimanis@pnu.ac.ir*

Ali Asghar Rostami Abusaeedi is Professor of applied linguistics, Department of English Language and Literature, Shahid Bahonar University of Kerman, Iran

Email: *rostamiabu110@yahoo.com*

Saeed Kheiri is PhD in TEFL, Education Ministry, Alborz, Iran

Email: *saeed_kheiri@yahoo.com*

Mehdi Karami is PhD in TEFL, Education Ministry, Hamedan, Iran

Email: *karami_m58@yahoo.com*