| **RESEARCH ARTICLE**

The Chaining Method for Better Vocabulary Retention: Tunisian University Students as a Case Study

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| **ABSTRACT**

A major current focus in vocabulary instruction has been on how to foster autonomous learning and provide learners with techniques to deal with vocabulary retention. In view of this idea, numerous studies have been interested in investigating the effect of teaching such mnemonic strategies on learners' ability to retain new items. Thus, this paper intends to focus on the concept of the narrative chain method as a memory vocabulary learning strategy that helps EFL learners to remember new vocabulary. It, therefore, aims at shedding light on the importance of learners' active role in practising the method, creating and imagining the storyline, and reflecting on it at the end of the process. To reach this purpose, fifty first-year Tunisian EFL university students were randomly selected to complete memory vocabulary strategy training. An evaluation checklist was then held to gain more information about their attitudes toward the technique's efficiency. Qualitative results have provided positive feedback concerning the narrative chain method treatment. The findings of the current study have led to crucial contributions to vocabulary teaching practices that should display the close connection between the active vocabulary learning/retention process and long-term memory in the Tunisian context.

1. Introduction

A shift of focus from incidental vocabulary instruction (Ahmad, 2011; Coady, 1997; Gu & Johnson, 1996; Nyikos & Fan, 2007; Ponniah, 2011; Vidal, 2011) to explicit vocabulary instruction (Alamri & Rogers, 2018; Curtis, 2009; Hulstijn, 2001; Nation, 2001; Schmitt, 2000; Sokmen, 1997; Tahir, Albakari, Adnan, & Abdkarim, 2020; Tacak, 2008) has paralleled interest in promoting learners' autonomy to learn vocabulary on their own. Therefore, vocabulary learning strategies (VLS) as an effective means to help learners in their act of learning and recalling new vocabulary items has emerged. Oxford and Nyikos (1989) admit that instructors can spend less time teaching new words and channel their focus on other elements since VLS are teachable. Besides, the use of vocabulary strategies enables learners to increase their repertoire of new lexical items (Nation, 2001). Actually, directing EFL learners' attention to learning new vocabulary intentionally "always leads to greater and faster gains, with a better chance of retention and of reaching the productive level of mastery" (Schmitt, 2008, p. 341).

With this in mind, learners should be able to know how to use such techniques to improve their vocabulary knowledge, and teachers should be able to know how to facilitate this process for them. Multiple research studies have actually examined the effective role of teaching vocabulary learning strategies to EFL learners (Amirian & Noughabi, 2018; Askari, 2014; Rahimi, 2014). With regard to learners' vocabulary development and retention, many researchers have extensively studied the effects of teaching mnemonics to help EFL learners to remember a great deal of information (Abbassi, Hassaskhah &Tahriri, 2018; Benkhenafou, 2015; Sozler, 2012). Liang (2010) states that "mnemonic devices linking new information to something already familiar to a student were found to be the most effective. That is, they were very helpful for recalling conventions that were not logically connected to content

students had already conceptualized" (p. 349). However, few investigations have been conducted on the role of the narrative chain as an important mnemonic aid that impacts EFL learners' short and long-term memory.

As far as the Tunisian context is concerned, the learner's agency in learning and retaining new vocabulary is still in its infancy. That is to say; vocabulary instruction seems to be more incidental rather than intentional. Due to factors like time constraints, content to be covered, and the educational system as a whole, Tunisian EFL teachers seem to fail to notice the importance of guiding and providing their students with as many opportunities to recall vocabulary as possible. With respect to this issue, less attention has been paid to the crucial role of explicit memory vocabulary learning strategy instruction in the Tunisian EFL environment. Besides, regarding the gap in the Tunisian literature about learners' experimenting with the target language through generating a narrative and giving their opinions about the process, much more focus on this neglected scope is needed. This gap has actually piqued my interest to provide a qualitative approach to Tunisian university students' active participation in a memory strategy treatment where they engage in building a storyline with newly-learned vocabulary using the narrative chain method, following the procedures of Chamot and O'Malley's (1987) Cognitive Academic Language Learning Approach (CALLA) as an instructional method. The latter is considered to be much easier and more flexible as the teacher and the learner can go back to any stage they need to, for it increases cooperative learning and thinking skills (Chamot & O'Malley, 1996; O'Malley & Chamot, 1990).

The aforementioned tool consists of five moves; preparation (activating students' background knowledge about the VLS they already know), presentation (presenting the given memory strategy through teacher's modeling and explaining how it works), practice (students' trying out the target strategy on a learning task), evaluation (assessing the newly-learned vocabulary skill), and expansion (transferring knowledge to other different activities).

1.1 Significance of the Study
The findings of this study will benefit;

Learners:
- ➢ To boost their autonomy and self-confidence to be in charge of their own vocabulary retention.
- ➢ To engage in a fun activity that will help them to memorise new words and retrieve them when necessary.
- ➢ To be given a chance to activate their critical thinking, cooperative, and creative skills to come up with the narrative.
- ➢ To learn how to create a story using new words in order to enhance their long-term memory.

Teachers:
- ➢ To improve their learners' motivation to use mnemonic aids inside and outside the classroom as well.
- ➢ To treat their students as independent thinking beings who are capable of using new words in an imaginary context of their own creation.
- ➢ To learn how to minimize class time spent for teaching new words and focus instead on teaching strategies for vocabulary recall.

Language policy makers and curriculum designers:
- ➢ To integrate memory vocabulary strategy instruction into the EFL classroom setting.
- ➢ To raise their awareness of the increasing interest in the deliberate practice of autonomy in vocabulary learning/retention and teaching in Tunisian pedagogy.

1.2 Research Questions
The current study aims to answer the following questions:

1) How does training in the narrative chain method affect Tunisian EFL students' perceptions of vocabulary recall?
2) To what extent can the story-building process impact Tunisian EFL classroom norms and rituals?

2. Literature Review
2.1 Mnemonic Techniques
It is to be noted that mnemonics are techniques used by EFL learners to overcome retention shortcomings. For instance, Higbee (1979) describes '*mnemonic*' as "a system or technique which aids the memory, and *mnemonics* refers in general to methods of memory improvement" (p. 611). Schmitt (2000) states that memory strategies consist of the connection between items to be memorised and previously learned material with the help of verbal and visual retrieval cues. He adds that vocabulary learning is basically based on the movement of lexical information from short-term memory (working memory) to long-term memory (more permanent memory). In this regard, memory strategies act like mental processing elements that enhance long-term retention. Although this procedure may take time, "the time expended will be well spent if used on important words that really need to be

learned, such as high-frequency vocabulary and technical words essential in a particular learner's field of study" (Schmitt, 2000, p. 135).

In a similar vein, Cohen (1987) defines mnemonics as methods that contain material recording where verbal material and visual images are combined together to assist the recall process. In fact, this technique refers to Atkinson's (1975) keyword method, which is considered to be among the most researched mnemonic tool that has proved to show positive results (Sokmen, 1997; Tacak, 2008). It involves two stages; learners look for an L1 word that sounds similar to a word in the target language and then create a visual image that connects the L1 word and the new word's meaning. Sokmen (1997) illustrates that in order for English speakers to learn the Turkish word "kapi" (door), they "could choose the slang word for a policeman, "cop", as being acoustically similar and then imagine a policeman pounding on a door" (p. 146).

In addition, learners can write down new words using specific patterns, which helps them to easily retrieve new words when needed. Holden (1999, p. 46) describes the spatial grouping method by giving the example of the figure of words that are grouped in the form of a body for easy recall. Moreover, using peg words to relate unrelated lexical items is another type of mnemonic method that helps to quickly trigger a memory. Thus, learners need to first memorize rhyming patterns (pegs) such as "*one is a bun, two is a shoe, three is a tree, etc.*" (Schmitt, 1997, p. 213), and then link the target word and the peg (e.g., *bun*) to an image of their own creation. Furthermore, learners can use visual imagery and pictures to be associated with the word to be remembered. Oxford (1990) gives the example of Helen, who "has just read the phrase '*les mouettes blancs*' (French for the white seagulls), and she mentally pictures white seagulls flying in the sky" (p. 61). Actually, visualization is beneficial for linking abstract words to visual pictures to facilitate recall (Holden, 1999; Oxford, 1990).

Semantic mapping is another memory aid that is meant to help students to improve their memory and comprehension of new vocabulary (Oxford, 1990). It mainly involves associating new L2 words with already known material by semantic relationships through using lines and arrows. In addition to grouping words using semantic relationships, new vocabulary can be grouped in a storyline to create a narrative. As for the present study, the narrative chain method is to be given more focus as it is the strategy opted for in this research.

Pérez and Alvira (2017) conducted a study where they trained EFL low-level proficiency teenagers that belong to a public school in Espinal, Colombia, in three memory strategies; word card, association with pictures, and association with a topic through fables. Qualitative and quantitative results showed that memory strategy training had a positive impact on vocabulary development and retention. The study's researchers highlighted the importance of integrating vocabulary memory strategy training into the English educational program.

Fasih, Izadpanah, and Shahnavaz (2018), however, tested the effect of using the keyword method on 360 third grade senior high school students' reading comprehension. Statistical analysis revealed that the keyword method as an instructional tool improved students' reading comprehension. Besides, a statistically significant difference between the experimental (15.33) and the control group's (2.13) mean scores in the post tests was found. The authors explained that it should be taken into account as "an educational implication that can assist teachers seeking better student achievement outcomes" (p. 49).

Alzaidi (2018) trained 63 Saudi Arabian learners who studied at the College of Languages and Translation at King Saud University in three memory strategies; grouping, placing new words into a context, and structured reviewing. The researcher used a questionnaire to determine learners' attitudes toward the target strategies and their connection to motivation and anxiety. Pre-post tests revealed that training helped participants of the experimental group to boost their ability to retain and spell the new words' meanings. In addition, mnemonic instruction was said to increase their motivation and make them less anxious to learn new vocabulary.

2.2. The Narrative Chain Method (Grouping Words in a Storyline)
Grouping as a memory strategy is regarded to be a useful method for recalling vocabulary items (Bornay, 2011; Holden, 1999). Schmitt (1997) states that research conducted in the L1 field has revealed promising results regarding the effective tools to remember words, and grouping as a mnemonic method is one of them. Furthermore, Oxford (1990) identifies grouping as a method to classify "what is heard or read into meaningful groups, thus reducing the number of unrelated elements" (p. 58). She explains that learners could group L2 words according to their grammatical function, their meaning, and their most common affixes.

Besides, words can also be grouped in a narrative. Laing (2010) defines the latter as "a story that incorporates the words in the appropriate order" (p. 349). Many scholars stress the importance of the narrative as a provider of the meaning of what we hear or read. Greenfield (2008, p. 59) advocates that the narrative framework is a fundamental component of cognition, for "we see

ourselves, the rest of the world, and our life story as a connected chain: a narrative". Crater (1993) explains that a story consists of an organized chain in one's head in order to display meaning. He adds that such a concept is becoming more distinctive in the learning and teaching fields. Oxford (1990), for instance, states that in order for learners to remember new words, they place them into meaningful contexts that they create to reach this goal. She mentions that as a way to remember items that are "related to sewing, such as *hook*, *eye*, *seam*, *zipper*, *button*, *snap*, *thread*, *needle*, *baste*, *hem*, and *stitch*" (p. 60), Katya, an English learner, creates a context in the form of a story where she uses this list of words.

Similarly, Holden (1999) adds that words can also be memorized if they are visualized using pictures or images that aim to set the context or the situation. They are, then, associated with a topic. Such associations are linked together to form a short story containing the words to be retained. He goes on to give an example of how to come up with a story using the following words; *'rug, expensive, livid, sudden, stain, wipe* and *relieve'*. Learners are to "picture (1) expensive Persian (2) rug. Then imagine that someone has spilled grape juice on it, (3) staining it. The owner (4) all of a sudden becomes very angry, (5) livid. The person who spilled the juice runs to get something to (6) wipe it up with. To the owner's (7) relief, the rug is not damaged" (Holden, 1999, p. 45).

In her article Story as World Making, Short (2012) reflects on the importance of stories in people's lives, stating that telling stories is an act of making one's experiences accessible to other recipients by constructing meaningful facts and interpretations in an orderly fashion, and by inviting them as well to grasp such meanings and create their own for better understanding. She goes on to admit that "stories create our views of the world and the lens through which we construct meaning about ourselves and others. We also tell stories to make connections, form relationships, and create community with others" (Short, 2012, p. 9).

In connection with the positive effect of stories on memory, Callahan (2015) affirms that "The features of a story help us remember much more than just facts alone. Our brains seem wired for story structure". For instance, in order to investigate the impact of employing the story method on two groups that are trying to retain words, Bower and Clark (1969) found that the group that has constructed a narrative to memorize 12 lists of 10 nouns was able to recall six to seven times as much as the group that has received "normal study and rehearsal" (p. 181).

In contrast with Bower and Clark's (1969) study, Prince (2012) conducted a comparative study in which he examined 16 new words that are inserted in a series of sentences through a narrative provided by the teacher (story condition) as opposed to using similar sentences that lack connection to each other (unrelated condition). Forty-eight Psychology students enrolled at a French university participated in the experiment. Post-test results showed that sentences consisting of target words using the narrative framework proved to positively impact learners' recall scores as opposed to sentences that are unrelated. He maintains that "the story allows for the linking of semantically unrelated words through a common context or framework and acts as an aid to recall" (Prince, 2012, p. 110).

Moreover, Ozdemir (2014) investigated the impact of applying the narrative chain method on the vocabulary learning and retention of intermediate-level students that belong to the School of Foreign Languages, Selcuk University in Konya. Results of the pre-post tests revealed that the experimental group implementing the story technique scored higher than the control group learning through vocabulary lists. They concluded that teaching items using the narrative chain method had a positive effect on vocabulary learning and recall.

3. **Methodology**
3.1 Participants
Fifty first-year university students (ranging from 19 to 20 years old) enrolled at the Faculty of Arts and Humanities of Sfax, Tunisia, took part in the treatment. Consent was taken from students that belong to four intact classes. Actually, learners were already placed in classes that were determined by the educational system of the university. On average, each class would contain twenty to twenty-two students. However, because some students were not able to attend class regularly and did not complete the stages of the narrative chain training, the main sample was reduced to only fifty subjects. It is worth pointing out that the intervention was conducted during their normal class time and during the reading course sessions.

3.2 Instruments
The current piece of research is basically qualitative in nature. It sheds light on tracking the journey that learners go through in their process to try out the target strategy and come up with a product that is entirely theirs. Besides, it highlights the critical thinking nature of the whole treatment and the significance of giving learners space to share their thoughts and perceptions on what they have been learning.

That said, classroom observations and evaluation checklists were opted for to reach this purpose. The former was adopted to gather more information about the steps of the chaining method practice in class. They were also used to capture any problems concerning the teamwork spirit of the narrative building process. The latter method, however, was distributed at the end of the training to reflect learners' views about the effectiveness of the procedures of the strategy-based instruction in general and the narrative chain tool in particular.

Questions were also posed to ask them about their preferences concerning the other memory vocabulary strategies encountered during the sessions, for the reading course is mainly based on learning multiple vocabulary and reading skills to apply to a reading text. Thus, participants were to state the reasons behind choosing a certain memory method. The purpose of such reflections was to discover whether or not they were aware of the importance of the narrative chain as a mnemonic technique to facilitate vocabulary recall.

In order to analyze data obtained from the evaluation checklists, the grounded theory method (Strauss & Corbin, 1990) was adopted. It consists in focusing on existing pieces of information that lead to exploring and developing new theories. Noble and Mitchell (2016) stress that it is a method "which uses strict procedures for data analysis and will enable you to search for and conceptualise the hidden social and collective patterns and constructions in your area of interest" (p. 2). Unveiling hidden data is actually conducted through the use of coding, which enables the researcher to identify the meanings of the key elements of data, and then group such elements into labeled categories (Charmaz, 2006).

3.3 Procedure

As was mentioned earlier, students were supposed to apply the target strategy during their normal reading course session (1h.30 minutes per week). Actually, in each session, students were provided with a reading passage accompanied by questions that helped students to learn about different reading skills (skimming, scanning, predicting, and so forth) and vocabulary skills (affixation analysis, synonymy, homophones, and so on). However, the focus was channelled toward presenting and implementing the narrative chain technique, which was meant to consolidate the retention and learning of the new vocabulary.

Based on O'Malley and Chamot's (1987) CALLA model, students were put into groups prior to the training process. For the first preparation step, they were supposed to activate their background knowledge about the different memory strategies they could use to work with new meanings. As a way to involve them more in the process and unveil the strategy to be practised, participants engaged in a ten-minute brainstorming/guessing activity where they suggested guesses of the technique to be learned.

Once the guessing game was over, the narrative chain strategy was presented and modelled by the trainer/teacher. As a starting point, students were encouraged to propose words of their own choice to create the story. The suggested lexis was extracted from a reading passage entitled '*Travel Diary: Yanshuei Fireworks Festival*' (Anderson, 2012, p. 87). Hence, a brief reminder of the meaning of the following items "*legend*, *drive away*, *in return*, *stuffing*, *nevertheless*, *worshipping*, *collided*, *explosions*" was introduced. Groups were formed as every team member tried to think of an idea or a topic to put these words into a narrative. To make the process less complex, separate sentences were first created and then combined based on the topic of the story. Volunteers would later discuss the idea of their stories. Finally, information about the chaining method's nature, characteristics, importance, and goal was given.

Being ready now for the practice phase, trainees were presented with the reading text of their course book '*Barefoot Running*' (Anderson, 2012, p. 127). First, they were invited to work on the reading and vocabulary comprehension questions. Second, the focus was put on seven target words, '*balance*, *clear-cut*, *urge*, *rush*, *persistent*, *adapt*, *ache*,' to generate a story. To ensure better understanding and recall, they were grouped into different speech parts (noun, verb, adjective, and adverb). Story writers were put into groups of four, and twenty minutes were devoted to creating the storylines. As soon as the narrative was created, volunteering groups had to explain its main components; the characters, the plot, the setting, and so on. Lastly, they were asked to assign titles to their stories.

Now that they had completed the story-building process, students were given the opportunity to evaluate their performance in the activity and comment on the effectiveness of the strategy. For that matter, group discussions were conducted. Generally speaking, the main objective of the evaluation procedure was to allow learners to share their views on their memory method practice. Further details about their opinions are to be discussed in the evaluation checklists' feedback.

In order to develop learners' autonomy and encourage them to employ the narrative chain tool more often, they were asked to select a group of new vocabulary items to combine in a new story of their own imagination as an expansion activity. To make the process more motivating, subjects were to vote for the best narrative, and the winning group was to be rewarded.

In the last week, evaluation checklists consisting of open-ended questions were distributed to check the participants' views about the strategy treatment they had undergone.

4. Results and Discussion

Qualitative results indicated that EFL learners provided positive comments concerning participating in the memory vocabulary strategy training in general and the story-building procedure in particular. For instance, students pointed out that integrating the chaining method into the normal classroom routines and practising it along with other vocabulary strategies was actually beneficial, for they treated it as a consolidation activity to guarantee more L2 learning and recall. This result is in conformity with that of Ozdemir's (2014) experimental study, where he affirms that combining the aforementioned technique with contextual learning provided better results for the experimental group as opposed to using lists to memorise new material. This study's finding can imply that learners should be exposed to various mnemonic techniques to choose from in order to enhance their ability to recall new items. Dornyei (2001) refers to the concept of 'choice', which suggests that learners should be provided with the opportunity to choose from many options to gradually build independence and confidence. In essence, teachers should know how to integrate such mnemonics into context with respect to learners' idiosyncratic differences and styles (O'Malley & Chamot, 1990).

Moreover, engaging in the stages of creating the storylines was reported to have a positive impact on participants' feelings of motivation and excitement (Nunan, 1997; Ozdemir, 2014). In reality, displaying evidence of enthusiasm and team spirit to work on the story were the most remarkable elements shown during classroom observations. In regard to this view, Hamilton and Weiss (2005) put emphasis on the impact of the narrative approach on students' level of motivation to learn more. They maintain that the story-building process can provide "a sense of joy in language and words that are so often missing in the classroom setting" (p. 2). In general, Dornyei (2001) stresses that allowing learners to be in charge of and involved in the different aspects of their own learning process can develop their motivation and autonomy. The author states that students "need to feel that they are -at least partly- in control of what is happening to them" (Dornyei, 2001, p. 104).

The next remarkable finding was that the current target technique helped them to easily retrieve new lexis whenever they needed to. Indeed, respondents highlighted the relationship between the chain narrative tool and long-term memory, explaining that stories guarantee easy access to new words stored in memory to be used later. One of the participants, for instance, explains, "*Writing a story from your own imagination makes words to be memorized stay and live with you for a longer period of time*". Actually, well-structured and organised material was said to be the most responsible factor for its retrieval. Higbee (1977) affirms that "organized paragraphs are also recalled better than unorganized ones, and stories that are organized logically (with one event leading to another) are remembered better than stories that jump around from one point to another and do not make as much sense" (p. 51).

Additionally, it was mentioned that the act of writing stories helps students to enhance their creativity. The latter is defined by Isbell and Raines (2013) as "the ability to think in unique ways, produce unusual ideas, or combine things in different ways" (p. 3). The relationship between creative writing and creativity was highlighted in this research, for learners stressed their need to practise different writing activities that allow them to become creative thinkers and writers. Eser and Ayaz (2021) accentuate the importance of providing students with as many opportunities as possible to express and share their creative thoughts freely. In a study carried out by Nasir, Sarwat, and Imran (2021) on the relationship between creative writing and students' writing progress, they found that creative writing is conducive to effective writing performance. They explain that such a key concept "grows purely from within and evolves to become something much more desirable, knowledgeable, and vital to the learning environment. The world is a creative place, with plenty of nature to give the creative brain, and anyone with glamour for language can make it" (3347).

Furthermore, students stated that coming up with a fictional setting, a plot, and specific characters gave them space to experiment with their imagination and originality. Compared with the other mnemonics used before or covered during the lesson, they affirmed that they favour the narrative approach as they felt a sense of competitiveness and thrill to share an original product with their classmates. Concerning the Tunisian EFL context, experiencing originality with words through writing stories is considered to be overlooked in the teaching/learning environments due to external (syllabus design) and internal factors (time and classroom management). It must be acknowledged that activities originating in originality should be encouraged, and EFL teachers should challenge the old tedious routines of covering and producing new material. This idea is consistent with Qoura and El Hadidy's (2018) study, which gives credit to the significant role that the short story plays in developing originality as a key component of creativity (Isbell & Raines, 2013). It was remarkable then that participants looked so interested in the writing process of the narrative that some volunteered to create a graphic novel following a lesson about '*graphic novels come to life*' (Anderson, 2012, p. 209). Thus, creativity did not consist of thinking of an idea for the plot but also putting it into pictures which were stated to be a new type of activity.

Enjoying the process of thinking and writing down the blueprint of the storyline; deciding on the different layouts of the plot in groups is another point that stands out as being worthy of note. One interpretation is that activities that are completed within

groups or pairs tend to increase the level of confidence, motivation, and creativity as everyone would feel comfortable sharing new perspectives in groups. Dornyei and Ushioda (2011) assert that "studies from all over the world are unanimous in claiming that students in cooperative environments have more positive attitudes towards learning and develop higher self-esteem and self-confidence than in other classroom structures" (p. 122).

Cooperative learning was also detected through the use of the CALLA method to facilitate the stages of the narrative chain training. According to O'Malley and Chamot (1990), collaborative work is one of the essential principles of the CALLA framework. Notably, Tunisian EFL learners should be encouraged to employ vocabulary strategies that promote cooperative learning. Teachers, in turn, should be knowledgeable about the different frameworks and strategies that help learners to be engaged in word meaning practices with peers.

5. Conclusion

Given these findings, this study gave suggestions that training learners to use mnemonic techniques inside the classroom would be effective in the Tunisian EFL context. Hence, teaching and informing students of multiple vocabulary strategies should be incorporated into the syllabus in order to nurture learners' ability to learn more words effectively and autonomously. In addition, interest in taking part in the different moves of the narrative chain method has some implications for EFL teachers and syllabus designers. Thus, more fun and motivating vocabulary tactics that stimulate students' imagination, accommodate their proficiency level, and increase their writing ability and long-term memory should be prioritized. In addition to achieving effective vocabulary learning and retention, the current results suggest that EFL learners' reflections and perceptions on their vocabulary learning strategy process should be taken into account as students would learn how to assess their progress and inform their teachers of potential limitations or difficulties. Therefore, apart from the evaluation checklists used in this research, teachers should present diverse evaluation or metacognitive procedures like group discussions, tests, journals, notebooks, and so on.

Although this research has produced interesting qualitative results concerning learners' attitudes about the narrative chain framework, quantitative analysis was missing. That means that the impact of the story-building method on students' vocabulary performance was not statistically analyzed. Pre-post tests, indeed, can be used to measure the difference between the group that has received the chaining treatment and the group that has received normal vocabulary instruction. Actually, not shedding light on teachers' views about memory vocabulary strategy instruction is another limitation that should be targeted. In this way, Tunisian EFL teachers were not given the opportunity to reflect on their vocabulary teaching methods and to provide their perspective on the narrative chain tool.

Since the focus of this study is on highlighting the effect of memory strategy instruction on learners' vocabulary retention in reading as a receptive skill, it is important that future studies change the focus to cover other memory vocabulary strategies and explore the productive skills of speaking and writing.

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