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A Comprehensive Review of Memory Strategies as a Crucial Component in Establishing Vocabulary Repertoire

مراجعة مفاهيمية لاستراتيجيات الذاكرة كونها أساسية في بناء الرصيد المعجمي

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Abstract:

This review paper aims to explore the matter of memory as a crucial component in establishing vocabulary repertoire for language mastery. While previous studies claimed for the capacity of humans to learn languages besides their mother tongue, nowadays shift is towards how human cognitive architecture determines the role of memory in learning languages.

In this paper, we focus on memory strategies and their crucial role in saving and retrieving vocabulary while learning like spaced repetition, mnemonics, flashcards and so forth. Therefore, our synthesis indicates that establishing a robust vocabulary repertoire is challenging while learning vocabulary because it stays to be short so that to connect the gap between temporary vocabulary saving to durable mastery. This gap shows how memory strategies are decisive in the process of establishing vocabulary repertoire.

The findings demonstrated that applying memory strategies when teaching vocabulary would be adequate to improve learners' vocabulary saving and recall.

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Finally, this paper offers recommendations for future applications to fuse and to use those divergent strategies and to be adopted while designing syllabus to improve learners' vocabulary repertoire so that they reach automaticity and fluency.

Key words: memory; memory theories; memory strategies; and vocabulary repertoire.

الملخص:

يهدف هذا البحث المراجِع إلى استقصاء مسألة الذاكرة بوصفها عنصرا أساسيا في بناء الرصيد المعجمي اللازم لإتقان اللغة. فبينما تشير الدراسات السابقة إلى أن للإنسان القدرة على تعلم لغاتٍ بجانب لغته الأم، اتجه الاهتمام في الآونة الأخيرة نحو الكيفية التي تحدد بها البنية المعرفية للإنسان دورَ الذاكرة في عملية تعلّم اللغات.

في هذا المقال المراجِع، يسّلط الضوء على استراتيجيات الذاكرة ودورها الجوهري في تخزين المفردات واسترجاعها أثناء التعلم مثل: التكرار المتباعد، وفن الاستذكار، والبطاقات التعليمية وغيرها. ويشير هذا التحليل إلى أن بناء رصيدٍ معجميٍّ راسخ يُعَدّ تحدّياً حقيقياً في سياق تعلّم المفردات؛ إذ تظلّ المفردات في كثير من الأحيان حبيسة الذاكرة قصيرة المدى، الأمر الذي يوسّع الفجوة بين الحفظ المؤقت والإتقان على المدى الطويل، وتُبرز هذه الفجوة مدى أهمية استراتيجيات الذاكرة في عملية إنشاء الرصيد المعجمي وترسيخه.

وأسفرت النتائج على أن توظيف استراتيجيات الذاكرة أثناء تدريس المفردات كفيل بتعزيز قدرة المتعلمين على حفظ المفردات واستدعائها بكفاءة أعلى. واختتمت الدراسة بتقديم توصيات للممارسات المستقبلية، داعيةً إلى دمج هذه الاستراتيجيات وتضمينها في تصميم المناهج الدراسية بما يسهم في تحسين الكفاءة المعجمية لدى المتعلمين وبلوغهم مستوى التلقائية والطلاقة اللغوية.

الكلمات المفتاحية: الذاكرة؛ نظريات الذاكرة؛ استراتيجيات الذاكرة؛ الرصيد المعجمي.

Introduction

Language is a form of communication based on words that refer to the unique human character along with the brain, a mysterious and highly suspicious organ containing an important area called Memory. Several researchers on cognition have explored the field of education where they emphasized the essential elements that have role in determining learning; many authors have defined and explained memory as being the process of storing data for later use. Moreover, human memory is any clue of learning that has stayed over time; it refers to the capacity to store and retrieve information. It is essential for learners to remember what they have learned from vocabulary, grammatical patterns to reach linguistic proficiency. Thus, the goal in the learning process is to facilitate for learners establishing and improving their vocabulary repertoire through adapting the use of different memory strategies while teaching vocabulary. This paper will shed light on reviewing memory strategies and their role in the process of vocabulary learning; moreover, how memory functions to store information then move to its variant strategies towards improving learners'

vocabulary repertoire through reviewing theories and strategies related to memory.

1. Methodology:

This review employs a narrative approach with the purpose of synthesizing conceptual in addition to theoretical developments related to memory research over a five-decade period to scope an issue related to pedagogical and cognitive research that continued for decades. Moreover, the search strategy for literature review was assisted using adequate databases picked for their disciplinary analysis of both psychology and applied linguistics as Google Scholar, ERIC, ResearchGate, and Scopus to be an identifiable search strategy to reduce choice bias were covering from old to recent publications as Ferrari distinguishes "Unlike systematic reviews, narrative reviews do not follow a standardized search or appraisal protocol, which allows for greater interpretive flexibility but limits reproducibility"[(1)]. Besides, the selection of sources is common, data-rich with the field of cognitive and applied linguistics aimed at tracing back conceptual expansion.

2. Reviewing Memory

Memory is the ability to recall facts, rules, events, situations, incidents, and experiences; It is one significant element in learning process because it allows us to organize and recall information. Indeed, Richards and Platt defined memorization clearly when they said that "mental capacity to store information, either for short or long period"[(2)]. The testimony that memory is learning over a lifetime with the processes of saving and retrieval of information, where mental operations are achievable through internal system of storage, is provided by Ashcraft who defined memory as "the mental process of acquiring and retaining information for later retrieval, and the mental storage system that enables these processes"[(3)]. Moreover, the retrieve of memory is enhanced through mental imagery to permit the association between words as Morris and Stevens state that the "Recall is facilitated only when the images which are formed link items together"[(4)]. Accordingly, "Memory is the means by which we draw on our past experiences in order to use this information in the present."[(5)] Therefore, briefly speaking memorization is saving previous information so that to employ it whenever it is needed.

Recently, within contemporary research, it has been expanding growth in research about memory as a vital element in the learning process that was

elaborated by many fields of study. In psychology, memory is defined as the ability to encode, store, and retrieve information. Squire claimed that memory involves various brain systems that work in parallel where they differentiate between conscious memory (declarative) as well as unconscious memory (no declarative)[6]. Again, the power or process of reproducing or recalling what has been learned and retained, particularly through associative mechanisms, and it is referred to as human memory through which human mind retains and recalls information.

Additionally, it is considered as a cognitive process as Matsumoto indicated that memory is "any relatively lasting storage of information in the brain, which is currently hypothesized to involve processes of encoding, storage, and retrieval of the information"[7]. Therefore, according to Matsumoto memory is not considered as a passive zone of storage rather it is an influential and durable brain process where it acts through interrelated stages in which the information is first encoded to be transformed into schemes that can be saved by the brain. The storage phase aids in keeping the information over long periods. In the last phase, the retrieval permits the persons to enter and obtain the information stored during the demand and use.

To synthesis, memory is a dynamic repertoire container that oversees acquiring and storing vocabulary and grammatical patterns along with lifetime learning experiences besides the process of retrieving the learned data. Therefore, Memory is the brain's method of recording and retaining previously learned information; it is an expanded changing process that occurs throughout life and is associated with saving, and it is considered as a cognitive mechanism that permits saving information over a period of time.

3. Functions of Memory

The brain is an enigmatic, complex organ that is responsible for language acquisition as well as other functions, and it has a very complex system. Despite extensive research into discovering and analysing its functions, some areas remain ambiguous and cryptic. Everything happens there, from recognizing to emotions, memorization, movement, understanding, production, perception, reflection, and so on. Besides, memory is essential to the cognitive functioning of the human brain, and the ability to remember and store information is an asset in our daily lives. Thus, it is the zone where we store the experiences, knowledge, and beliefs that shape our understanding of the world around us, and

its cognitive ability works in a variety of ways to allow us to process and recall information.

In fact, psychologists have done a mass body of research about memory where they established theories along with neurosciences, which examine how nerves impact learning and behaviour, and have recently provided new insight into how the brain functions and established the three different categories of memory as Ashcraft and Radvansky who indicate numerous functions of memory and how it works as being significant to humans. Initially, one of memory functions is storage through which the information is kept in mind and satays available for later use; though in some cases the information is treated unavailable when it cannot be recalled(8). Besides, the encoding function of memory deals with transmitting the cognitive and sensory input that can be saved for a long period due to the fact that a damaged brain blocks the creation of new memories to be known as anterograde amnesia(9).

Another function of memory is working memory concentrated with what the psychologist Baddeley called the central executive, a regulatory system that gives attentional input over cognitive features where it functions at present time in which it handles the information used now rather than the already stored(10). Lastly, memory functions as an autobiography where maintaining the file of individuals lived experiences with aim of preserving identity and self over lifetime(11).

Therefore, memory surpasses over the notion of just being simple recall; storage is information that the brain is currently processing and can be recalled later whereas encoding is any memory that is not currently being processed but can be accessed at any time. Individuals must have a good working memory because it allows them to focus on what they are doing at the time. Thus, it is regarded as the primary system of human cognition. Even though we opine that working memory is crucial for cognitive processes like problem-solving, manipulating information in the mind, learning, decision-making and understanding, this model has limited capacity. Individual differences in specialized abilities can impact cognitive performance and learning capacities.

4. Theories of Memory

A large body of research conducted over the last 50 years demonstrates the importance of memory, its function, and its role in saving and recalling information. As a human cognitive capacity, memory has an important role in

the learning process as it was mentioned earlier. Thus, numerous research are done to demonstrate its critical position while learning something new; there are many theories about memory, so this section provides an overview of the most significant theories that are helping in structuring the understanding of memory while acquiring information.

4.1 Number Theory

Miller opines that everyone knows a limit item of actual memory which is seven items in length; he suggests that the human mind has a limited capacity for processing information, known as magic number seven[(12)]. According to this view, short-term memory capacity is limited to seven items when retrieving data, two processes are involved: short-term memory and long-term memory. His law has been widely studied and discussed by scholars that has numerous practical applications. For instance, Miller did not specify the amount of information that each slot can retain. Moreover, he suggests that the items that human memory possess are restricted by the number of chunks that can be occupied at the same time[(13)].

However, it is believed that the capacity of long-term memory is limitless, and it can retain information for an entire lifetime. By grouping information into chunks, we can store more data in our short-term memory. However, this theory had simplified the cognitive abilities where we may find divergences with the working memory of individuals and even different categories of linguistic features.

4.2 Selective Filter Theory

The process of guiding our awareness to relevant stimuli while ignoring irrelevant stimuli in the environment is known as selective attention. According to Broadbent's selective filter theory, people do not process unattended stimuli beyond analysing basic physical properties. His theory serves as a bedrock in the field of cognitive psychology; it indicates in a systematic manner how the nervous controls the extended progress of the incoming sensory information. This theory is considered a crucial process because Broadbent suggested that a filter acts as a buffer on incoming sensory information; however, attended stimuli will pass through the filter according to their common physical properties, while unattended stimuli will be completely blocked and ignored since they fit with other channels Broadbent[(14)].

This theory has revolutionized the field of cognitive psychology and expanded our understanding of human information processing system, yet the human perceptual system functions as a filter, selectively processing information from the environment where the movement of information from the initial senses to reach conscious awareness is controlled by the physical cognitive mechanism. Moreover, it has had a long-lasting impact on cognitive psychology, and it has been widely accepted and applied to a wide range of different research fields, including cognitive psychology and education. Even though this theory shows that information is filtered and structured by our sensory systems before being processed by cognitive processes, it proved it fails in explaining the semantic processing when the stimuli is unattended. This is a crucial process because there is a limit to how much information can be processed at a given point in time.

4.3 Memory Decay Theory

In some cases, memories decay over time this led to the establishment of the memory decay theory. Peterson and Peterson investigated one of the factors that contribute to the decay of the short-term memory, or why we forget information in our short-term memory. They conducted an experiment in 1959 to determine how the amount of time between remembering something and having to recall it affected the life of a memory. They demonstrate that within the absence of drill the information which is centered in short-term memory will decline.

Noticing further they emphasized in their study on short-term retention because most researchers tend to explore long term-memory for that reason they shift in their study towards short-term retention mapping how memory vanishes in few seconds instead of hours or days[(15)].Thereby, they claim that the quick decay of memory variate depending on the amount of information rehearsal by the individual, approving that over time short-term memory decays.

4.4 Atkinson-Shiffrin Model

Atkinson and Shiffrin proposed the multi-store memory, or Atkinson-Shiffrin Model as a psychological model for the structure of human memory their work was crucial and influential in the field of memory research. They outlined three memory stages: sensory memory (sensory register), short-term memory (storage), and long-term memory/storage. According to this model, information is altered by encoding it in order to be stored in memory, and

memory stores differentiate in terms of capacity and duration Atkinson and Shiffrin[16]. Moving to the second component, short-term store, was determined as being dependent on working memory where the data can vanish in only 15 to 30 seconds with the condition to be retained through drills[17]. Finally, the third component of Atkinson & Shiffrin's model is the short-term store which was characterized by being durable archive by which the chosen information is transmitted from short -term stores to be permanent where it does not decay in the same way as it happened with the initial stores[18]. Together, these three components form an integrated and hierarchical memory architecture that has continued to shape cognitive psychology for decades.

4.5 Working Memory Model

In contrast to Atkinson's multi-store memory, Baddeley and Hitch argue that the model over simplifies memory where short-term store only holds limited amounts of information for brief periods with minimal processing in relation to the multi-store model. This suggests that there is only one single system of storage with no subsystems. They consider working memory as a multicomponent model, in which the central executive is composed of two-components; the auditory system as the phonological loop of learners' divergencies that is important while acquiring vocabulary of second language where the sound feature of the new vocabulary is predicted through those variations, as well as the visuospatial sketchpad (visual system) so that it can process information whereas short-term memory can just hold it. They suggest that memory is made up of various unique systems that interact together to form memory. It has been used to explain and comprehend a wide range of occurrences and has also been used in various fields[19].

Furthermore, they suggested that working memory is not considered as a single elementary space of storage instead it is considered as a system with three parts where the central executive manages the resources and attention; another part is the loop that is in charge of handling all that have relation to phonological information, and mental scratchpad dealing with special as well as visual information. Therefore, this framework reproposed the view of considering short-term memory as a passive vase, rather demonstrating that it is effective system in which both storing and processing information handle simultaneously.

Their study is significant in the field of cognitive psychology that has had a crucial influence and served as basis for contemporary research on human

memory. Furthermore, Baddeley expanded the idea into a fourth component known as episodic buffer where he explains the way of assimilating grammatical rules, vocabulary, gestures and even visual text into a united memory of language. Thus, this component operates as a mental space that works to fuse information from all the other parts of the long-term memory as well as working memory into a single meaningful chunk so that the three components are interconnected where each component serves a distinct purpose in the processing and manipulation of various sorts of information[20].

4.6 Craik & Tulving' Levels of Processing

Craik and Lockhart conducted experiments to explore how the level of processing affects the phase of how we recall data, stating that the evidence of memory is implied through perception instead of transmitting information, and they discovered that participants could recall words that had been processed more profoundly. This suggests that the level of processing theory is true[21]. Their framework indicated that the processing stages are ranked from its simple features related to sensory to accurate level of semantics and associative processing where the meaning is deduced and expanded through depth to establish strong traces and durable memory[22].

Therefore, they conducted one of the most well-known studies in memory research, depth processing, which had a significant impact on the development of contemporary memory theories. Their 1972 study, levels of processing, proposed that memory is related to the level of mental processes where they suggest that words in which are processed at the semantic level indicate remarkable recall compared to that processed at structural level to determine the trace of memory[23]. Even though their theory proved inadequacy since it lacks reasoning while they employ retention to explain depth and then supposing that the depth motivates retention, their findings are still widely referenced in the field of cognitive psychology.

4.7 A Feature-Integration theory of Attention

According to the feature-integration theory of Treisman and Gelade, the brain links visual information to perceive the surroundings where they explain that visual stimuli perception appears in two phases. In the visual processing, as a first phase, different features such as colour, shape, size, and orientation perceive various features with no need to emphasize attention and parallel way they are processed automatically. Within the second phase, attention operates as

an adhesive element that helps us identify objects in which the separate features integrate to create a single object representation[24].

Memory is an essential part while learning, as it is involved in processing large amounts of data. The first step in processing information is to convert it into a format that the system can comprehend. This can be achieved through visual (pictures), acoustic (sound), or semantic (meaning) coding. When we notice a word, the brain uses visual coding, whereas when we repeat it, acoustic coding is employed. During the process of memorizing vocabulary, both acoustic and visual coding are present in short-term memory, while semantic coding is more likely to occur in long-term memory. As a result, their work has influenced research in visual perception, object identification, and cognitive processing.

4. Memory Strategies as a Medium in expanding Learners' Vocabulary Repertoire

Before stating most significant strategies that aid in memorizing vocabulary, let's focus first on understanding vocabulary as being a significant aspect in language learning; moreover, it is one of the key elements while communicating so that learners must continuously expand their vocabulary as well as their saving of grammatical features; this would help in determining the function of each vocabulary when it is arranged in a sentence by doing so learners can be fluent while using the language. In fact, possessing large vocabulary is important to master the language, thus "...., for the two tools for communication, vocabulary and grammar, the former is clearly the most essential one"[25] as it was stated by Krashen & Terrell. From that standing point, vocabulary is highly crucial while communicating since the learners need to communicate their ideas or even ask for clarification, they must possess enough vocabulary that would permit them to convey and as well understand and interact in any communicative conversation.

Besides, vocabulary is the collection of words that the individual knows and uses, Hatch and Brown assert that vocabulary "refers to a list or set of words for a particular language or a list or set of words that individual speakers of language might use"[26]. Furthermore, Carter expanded the notion of vocabulary to be beyond just couple of individual words, to chunks and numerous word phrases in which they operate as individual unified meaning; he quoted that "the

words of a language, including single items and phrases or chunks of several words which convey a particular meaning, the way individual words do"[27].

Regarding vocabulary retention, the use and adoption of memory strategies is considered influential tools because they facilitate learners the saving of words, to encode, and to recall new vocabulary. When using those strategies, learners improve their competence to retain and retrieve vocabulary with the establishment of meaningful associations too. Let's skim through the most effective strategies that would lead to enhance and to establish learners' vocabulary repertoire.

5.1 Repetition and Spaced Practice

Towards an improvement in recalling vocabulary, repetition and spaced practice are considered as principal mechanisms and employing this while teaching vocabulary where words are exposed more than one time to be reviewed and retrieved. Initially, Pimsleur comes with notion that gradually repeated retrieval by learner strengthens the memory in a durable way further than how it was previously so that so the learned material would be stronger in retention as he states "Each time a memory is boosted it retains its strength longer than the time before -is the keystone upon which to build foreign language materials."[28]. From that standing point, Baddeley claims that memory encoding can be reinforced when learning materials are revised over spaced intervals; it would be permanent over time; he asserts that "spaced presentation enhances memory... spaced practice leads to less forgetting."[29].Therefore, strategies are essential while saving new vocabulary in long-term memory.

5.2 Flashcards, Mnemonics Keywords Strategies

Flashcards are classical tools used by learners to activate the recall of learned vocabulary as well as the use of mnemonics as another tool that can be used in the process of learning vocabulary; it is a creative memory device technique (e.g., acronyms, rhymes,) that aims at recalling words[30]. Besides, it is considered as a convenient technique that can be used in classroom to help learners memorize a particular pattern or structure to make it easy for them to recall the learned knowledge later whenever it is required.

To enhance memory and learning process the use of mnemonic strategy was perceived as a significant tool. Within the ancient method, facts are memorized in isolation; however, when learners associate new information with the one already known will be accessible in easy manner while retaining the

information as Belleca et al. clarified, "mnemonic methods involve linking unfamiliar information to familiar knowledge through visual images or letter/word combinations"[31]. Furthermore, to dive in deep with this strategy, it suggests that the adaptation of it will lead to effective learning outcomes where it directs to long term retention, and by employing this strategy in classroom, more precisely with learners who are acquiring a new language, will help in storing information.

Since we are living in digitalized world where technologies are in expanded progress, some strategies shift to be adequate with modern education such as digital flashcards. While learners create their own content flashcards, their storage and comprehension will be improved as Pan et al stated that "generating one's own flashcards enables productive learning processes that enhance memory and comprehension"[32].

5.3 Word Maps

To build a strong word knowledge the learners have to be supported by strategies that would enhance their vocabulary. A word map (semantic maps) is designed as a visual vocabulary strategy, it is a facilitator that intensely investigates and understands a new vocabulary term through associating it to its definition, word's part, synonyms, antonyms, and concepts to semantic links. According to Johnson et al. semantic mapping is "a categorical structuring of information in graphic form," noting that it is "an individualized content approach in that students are required to relate new words to their own experiences and prior knowledge"[33].

This strategy leads to establish rich network associations of vocabulary; to be as a repertoire that links new information to the existing knowledge where it would be well saved in memory as the study of on Stahl and Nagy indicates that when approving learners with influential word-learning strategies to acquire words needed; learners are supported to move beyond isolated words towards relying on themselves to find, to analyse, and to incorporate new words over variant contexts[34]. Therefore, this strategy indicates integral towards learner-centered approach to vocabulary development through fusing the new vocabulary with actual learners' knowledge.

5.4 Crosswords and Puzzles Techniques

Establishing learning strategy for vocabulary lessons such as crosswords and puzzles is considered as learning based on using academic vocabulary may

reinforce vocabulary retrieval from memory. According to Nguyen, the use of games as an instruction to teach vocabulary will lead to an improvement learning results better than using rote memorization and word lists. Additionally, games permit communicative learning through establishing an interactive environment, so it motivates learners and promotes their engagement as well as allowing them to grasp the function of words over variant contexts[35]. Therefore, while adopting games tasks while having lessons about vocabulary, it will seem to be a good and useful strategy.

5.5 Word Games Techniques

Language learning is a process that needs numerous elements and tools to achieve its goals and lead learners to success, so it is adopt strategies to make the environment of learning more pleasant. For this reason, games have been recognized as a crucial tool that would permit learners to engage with motivation in the learning process, and games encourage playful experimentation with words. Wright et al. claim that "games help and encourage many learners to sustain their interest and work"[36], he argued that word games like scrabble and boggle help the learners to strengthen and boost the retention and recall of vocabulary (spelling, word patterns, familiarity with prefixes/suffixes), better since they make vocabulary learning process more interactive and delightful. Thus, games give the learners a chance to experience language learning in different ways where communication will be advanced along with learning results will be durable.

Furthermore, research indicates that digital games interact with language acquisition in which it shows skill progression, increase motivation and interaction with language and where anxiety is reduced; moreover, Vnucko & Klimova claim that games "can facilitate the development of all four major language skills, and can additionally develop vocabulary and enrich grammatical competence"[37]. Thus, since we are living in a world which characterized by constant progress, it is functional to adopt games in some classroom tasks practice.

5.6 Contextualized Chunks

Chunks and context act as crucial elements while language is acquired. According to Wang and Christiansen, chunk is considered as a "pattern-based memory skill" in which shortens the new input by depicting it with the already learned information[38] where the language is processed by learners in a way that

would be a meaningful unit instead of learning words in isolation. This strategy can be adopted in classroom as chunk-based instruction along with context as Godwin-Jones explained that "contextualized encounters are likely to enhance the chances of retention, as words and expressions are used in meaningful, and therefore more memorable, ways"[39]. Therefore, both instructions help in improving communicative competence and permit the brain to operate language in natural manner.

6. Memory Across Establishing Vocabulary Repertoire

Proficiency in foreign language learning is largely determined by vocabulary since it is an important element that leads to fluent communication, but to reach that automaticity for learners is intrinsic path which is directed by numerous components such as memory which is a crucial system in making vocabulary durable and expanding into repertoire. It is an effective mechanism in the process of language learning. Some researchers focused on discovering the storing journey of vocabulary in memory, thus, there are two distinct methods that aim at gathering information.

The Act-R cognitive architecture, which consists of both a permanent declarative memory and a persistent procedural memory as well as an activation of working memory with the aim of practicing tasks as it was stated by Ritter et al[40]. This theory supports a dual learning system where declarative memory functions by making mechanism strengthen to boost the activation of chunks through the repetition of the retrieval in which memory is dependent on that retrieval[41].

According to Gagne, structural model of teaching is organized with three interrelated components in a systematic way leading to a successful learning experience. The first major component is the taxonomy learning outcomes, then learning conditions to attain each outcome, and the nine instructional events linked to the cognitive process, which, if correctly implemented, can significantly enhance learning outcomes (cited in Driscoll)[42]. The encoding of information, which is a fundamental component of this process, is crucial in learning, as identified by that model of teaching to achieve optimal results. Those three components together create Gagne's theory as instructional framework for principle of processing information cognitively.

On the other hand, the socio-educational model of Gardner and Lalonde which is related to second language acquisition indicates that the process of

language learning is conducted by motivation and ability as being independent components where motivation is the basis from psychological perspective[43]. Additionally, the motivation to learn a second language is described with three conditions as the ambition to learn language, then the motivation must be in depth while learning a language as well as emotive reaction towards learning it[44].

Dropping this into the process of learning is precisely the understanding of language as it involves the ability to recognize its unique features and structures as well as function of words. The encoding of information is a crucial aspect of learning. In essence, learning entails organizing sensory input into internal representations that can be stored in the brain. It also involves assimilating additional environmental data and incorporating it into existing internal structures to produce a more precise mental image.

7. Analysis and Discussion

7.1 The Impact of memory in the process of learning

Memory plays a crucial role in human cognition as it enables the formation, preservation, and retrieval of various types of knowledge. It is responsible for storing and recalling information from the past, facilitating decision-making based on past experiences and present circumstances, and directing behaviour to achieve desired outcomes. The memories also aid in learning, and recall of important events and experiences, and enable us to perform meaningful tasks and activities. Thus, memory is an integral component of human cognition that shapes our understanding of the world around us.

7.2 Retrieve Vocabulary Through Memory

The process of learning is closely linked to the ability to form and recall memories. The human brain has a remarkable capacity to store and retrieve information, which is essential to the acquisition of knowledge so that the process of learning is done basically through storing and recalling information. During the exam, the learners are assessed through bringing back the acquired information, the use of it to solve problems and towards building critical thinking so that in one way or another the learners are asked to reshape the processed information through variant ways. In fact, memories are the tangible evidence of the learning process, serving as a record of our experiences and the information gained. Without memory, it would be impossible for learners to retain and access the knowledge they acquired.

7.3 Language & Memory as a Human Feature

Language is a unique human characteristic and serves as a verbal means of communication. The brain, an organ with a dynamic repertoire that is highly susceptible, is responsible for learning and preserving words. The three stages of the information processed model are input (encoding), storage, and retrieval (access), and knowledge is created because of learning. Learning is a continuous process, and as such, the system may change due to incompatibility or new information may be added to the currently used structures.

Proficiency in a language is primarily determined by an individual's familiarity with words. Words are the fundamental indicator of learners' level of linguistic proficiency. When it comes to learning a new language, the journey involves actively participating in a process, finding joy in the process, and allowing the language to naturally emerge with the aid of well-structured strategies by the instructor to aid learners to achieve the outcomes through memorization. This enables the learners to read, write, speak, and listen with greater ease and fluidity.

7.4 Memory as a Path Towards Establishing Vocabulary Repertoire

The goal of learning is to memorize the acquired knowledge, and the effectiveness of this process is gauged by testing and evaluating through retrieval the acquired knowledge since learning a language without memorizing its vocabulary and grammar is impossible. Memorization of vocabulary and grammar is a critical component in learning any language, making it a fundamental aspect of the language learning process. As such, the purpose of teaching a foreign language is to facilitate, reinforce, and develop students' various skills. To achieve this goal, teachers must employ specific techniques and strategies when explaining concepts. Therefore, deductive or inductive instruction can be used as mediums to impart knowledge with precision and assertiveness. In order to learn and master a language, it is a necessary step to study its foundational words and grammatical structures. The first step for a student is to learn the terms and regulations and practice them until they become automatic, and this is done inside the brain.

Language learning as stated before is immensely done through memorizing vocabulary, that can permit establishing a solid foundation for real-life conversations. This can be incredibly helpful in reading, writing, speaking, and

even listening, as it enables learners to understand and interpret the language more effectively.

Therefore, from the above discussion we opine that the process of memorization involves understanding the meaning of a word within its context, which can help learners become more familiar with it. Additionally, learning a foreign language requires a comprehensive understanding of human psychology, memory, and other concepts. The acquisition of knowledge and skills in a language occurs through retention, conscious learning, and deduction as well as understanding the grammatical features of a language reveals that each word has a particular function and location, which collectively forms the syntax of sentences. The following statements sum up essential elements that help in constructing the puzzle of the learning process:

- Semantic relations such as synonyms and antonyms may help in improving and expanding the learners' vocabulary as Al-Khawaldeh et al suggested in their investigation.(45)
- Establishing a strong vocabulary repertoire leads in enhancing learners' communicative competence that needs expressive and receptive vocabulary because large vocabulary is basic while learning to read; they focus on the importance of vocabulary within early classroom holding the success for language reading(46).
- Teachers have a role in helping learners to establish vocabulary repertoire so that language use and comprehension will be more flexible because of the vocabulary knowledge they possess. Beck et al. stress on the idea that vocabulary is deeply related to reading comprehension over all levels, since a long time ago, little focus and attention was given to curricula of vocabulary acquisition in school(47).
- Moreover, according to Nation, learners are exposed to words through different contexts so that it is the role of the teacher to aid learners in achieving their learning outcomes. When vocabulary is almost known, learners' reading comprehension of text will be easier as they know words function recognizing vocabulary within its variant context(48). Therefore, learning in contextualization is also significant for creating a vocabulary repertoire with learners' understanding of different word classes and functions.

The influential power of vocabulary can be determined by vocabulary knowledge of learners where the limited vocabulary indicates the lack of fluency since the more vocabulary the learner possesses and gains the more fluent will be while communicating using language. When considered together, the evidence points to the studies reviewed in this section to indicate the connection between the acquisition of vocabulary and memory.

The work of Al-Khawaldeh et al on semantic relations shows that the development of vocabulary is not an operation of just storing words; however, governing them into networks of meaning, and this raises the matter that it is seldom to mark why these relational memory-based instruction instead of considering the memorization of words in isolated units. Besides, viewed as a whole Beck et al.'s request that vocabulary knowledge is essential within reading comprehension, yet this indicates a gap that lies whether the relationship has been found for decades, the continuous ignorance of vocabulary instruction in the curriculum of schools proposes a dissociate between whet the classroom practice invokes and what the research about memory requires where the reviewed sources defend even though barely clarify and explain.

Additionally, with the standing point of Nation’s vocabulary learning (contextual view) makes this picture more confusing, because it indicates that the strength of vocabulary recall relies basically on the richness of exposure as on intentional memorization which does not correspond to the encoding-focused strategies stressed in this view. Therefore, taken all together, these three views are not compatible since one prefers structured semantic, one favors explicit instructional focus, another one supports incidental contextual exposure, thus far the literature contributes to indicate them increasingly instead of showing how memory underhanded the exposure into long-lasting vocabulary knowledge. Consequently, this indicates the uncertain balance instead of the common claim that memory reinforces learning, yet this is a requirement to tackle for further research on vocabulary acquisition.

8. Findings

Memory is considered as a significant element in establishing vocabulary; it represents success for any educational activity where the learners’ vocabulary could be enhanced through various strategies. Research on memory is an attractive area for numerous fields such as pedagogy, computer science, neurology, psychology, and others. Research indicates that individuals with

large vocabulary possess good memory and the new learned vocabulary is expanding to a repertoire that may permit learners to engage fluently while communicating their ideas orally or in written format.

The reviewed findings mingle in the argument that individuals own immense vocabulary that shows appropriately strong memory capacities, permitting the novel acquired lexical to be fused and integrated into a repertoire that assists fluency within language use, so that, vocabulary knowledge appears in critical manner more rather than phonological or grammatical competence, because lexical items must be integrated in long-term memory to be immediately retrieved for language use whenever need it. Overall, the analysis suggests that for success and enhancement in establishment of vocabulary repertoire we must consider the following points:

8.1 Vocabulary as a Medium to Pave the Way for Fluent Communication

Vocabulary knowledge is considered a cornerstone while speaking about language competence since the learner will be unable to communicate his ideas when his vocabulary repertoire is not enough as Nation claims that even the learners' grasp of grammar and phonology is not crucial as their vocabulary knowledge because memory is significant as vocabulary must be stored in long-term memory(49), so that learners can easily retrieve information when they need it due to the role of strong memory since they are expanding their vocabulary through their lifetime.

8.2 Vocabulary as an Indicator of Learners' Level of Proficiency

From the standpoint of some researchers, the size of vocabulary and the mastery of language beyond reading, writing, speaking, and listening indicate a powerful tie as Read indicates that the building blocks of language are words, and even for advanced learners, the issue of vocabulary with their second language acquisition may realize the absence and loss of some vocabulary where they can experience words they do not understand or even some notions cannot be expressed as they can do in their native language(50). More precisely, we can say that this interaction is examined through memory strengthening. Also, it shows the level of learners with language competence, while the more vocabulary the learners know, the more proficiency they will be.

8.3 Motivation, Confidence, and Engagement as Components for Expanding Vocabulary

Learners must know at least 90 percent of vocabulary to enable them to understand text when they are exposed to new vocabulary that could be learned ineffectively; moreover, he further claims that learners' fluency to get an automatic access to vocabulary is also important since the acquisition of chunks along with vocabulary learning where learners frequently access it leads to storing in long-term memory and the more language use will be fluent due to automaticity(51). Therefore, when learners' vocabulary repertoire is well improved it may diminish anxiety and this make them feel more confident while using language and motivates them to engage in communication deliberately as it was claimed by scholars that learners with developed vocabulary are emphasizing more on meaning and this led them to be fluent and more confident while communicating.

8.4 Pedagogical Standpoint in Establishing Learners Vocabulary Repertoire

In classroom, teachers who design a well-structured vocabulary (syllabus) affluent atmosphere through contributing to drills as word list, peer-dialogue, notebooks will help in motivating the activation of the encoding process in the brain since little focus in school curriculum on the issue of vocabulary acquisition hence they support the use of significant instruction to teach vocabulary(52).

Within the same view, Nation and Waring claim that for second language learners the issue of vocabulary size is very crucial because the amount of words is corner stone to both production and comprehension of language(53), and they assert that the frequency-based vocabulary lists indicate a groundwork while designing a curriculum. Therefore, helping the learners to be self-regulated in learning like adopting the use of vocabulary journals, outlining semantic mapping will permit them to be self-improving because they are monitoring their process of establishing vocabulary through making encoding be boosted since the process is done consciously. Furthermore, this led to intentional learning so that the learners may fuse the existing vocabulary with the new vocabulary.

8.5 Neurological Standpoint in Establishing Vocabulary Repertoire

To get access to vocabulary (retrieve), two essential stages include the selection of lexical and phonological encoding where within the first stage the

word is chosen from mental lexicon depending on its conceptual requirement. This selection recalls information of syntactic and morphological types; however, no phonological form, then the lemma triggers the associated phonological word type which is saved solely in the phonological output of lexicon(54).

Conclusion

This review traced back five decades of research on the importance of memory strategies and their function within vocabulary acquisition, as it serves as significant cognitive architecture for consolidation and retention of vocabulary knowledge; compelling the field's fundamental strategies such as semantic encoding, key word instruction, retrieval approaches like mnemonics, and spaced repetition are integral elements manipulated at different stages of memory recall from the basic encoding till reaching long-term strengthening . Furthermore, its adequacy directly resolves the breadth, depth, and rapid accessibility of learner's vocabulary repertoire. The learners can achieve this through repeated exposure to new words and their meanings, as well as through regular practice and repetition. Thus, strengthening the processes of memory encoding and retrieval is the initial indicator of advance in vocabulary acquisition. Additionally, memorization strategies are powerful tool that can help learners to store new words, expand their horizons, and aid in recalling the new learned vocabulary so that educators are emboldening to adopt them within classroom practice to assist learners during the phase of learning through pushing and motivating them to gain knowledge, to learn new things, and to engage within the language. Besides, another important point for establishing vocabulary repertoire is not just knowing and possessing immense vocabulary but also knowing the function of words in which the learners could use them appropriately while communicating their ideas. Therefore, the educator must take those vocabulary instructions into consideration to be adopted while designing the course for better achievement results in the learning process; improving both theory and classroom performance within vocabulary instruction will rely less upon indicating which strategy functions best and more on recognizing when and how those variants strategies should be mixed during learning and retention process. Thus, vocabulary is the extent range of words that the learner recognizes within its variants aspects entry that permits for the acquisition of vocabulary to make it last long and be flexible in use.

List of sources and references:

1. Al-Khawaldeh, N. N., Al Khalaf, E. M., Rababah, L. M., Al-Shboul, O. K., Krishan, T. A., & Alkayid, M. M, Developing EFL learners' vocabulary repertoire through semantic relations techniques. Theory and Practice in Language Studies, 14(8), 2024.
2. Ashcraft, M. H, Human memory and cognition, (2nd ed.), New York: Harper Collins College, 1994.
3. Ashcraft, M. H., & Radvansky, G. A, Cognition (6th ed.), Pearson, 2013.
4. Atkinson, R. C., & Shiffrin, R. M, Human memory: A proposed system and its control processes, In K. W. Spence & J. T. Spence (Eds.), The psychology of learning and motivation, Vol. 2, Academic Press, 1968.
5. Baddeley, A. D., & Hitch, G, Working memory, In G. H. Bower (Ed.), The psychology of learning and motivation: Advances in research and theory, Academic Press, Vol. 8, 1974.
6. Baddeley, A., Eysenck, M. W., & Anderson, M. C, Memory (2nd ed.), Routledge, 2017.
7. Baddeley, A., Working memory: Looking back and looking forward, Nature Reviews Neuroscience, 4(10), 2003.
8. Beck, I. L., McKeown, M. G., & Kucan, L, Bringing words to life: Robust vocabulary instruction (2nd ed.), The Guilford Press, 2013.
9. Beck, I. L., McKeown, M. G., & Kucan, L, Bringing words to life: Robust vocabulary instruction (2nd ed.), The Guilford Press, 2013.
10. Belleca, F. C. D. G., Cammpued, K. R., Caballas, R. B., Guiruela, J. M. N., & Ocampo, D. M, Effectiveness of mnemonic method on students' language information retention, Journal of English Language and Pedagogy (JELPA), 3(2), 2025.
11. Broadbent, D, Perception and communication, Pergamon Press, 1958.
12. Carter, R, Vocabulary: Applied linguistic perspectives, Routledge,2012.
13. Craik, F. I. M., & Lockhart, R. S, Levels of processing: A framework for memory research, Journal of Verbal Learning and Verbal Behavior, 11, 1972.
14. Driscoll, M. P, Psychology of learning for instruction (2nd ed., chap. 10, Allyn and Bacon, 2000.
15. Ferrari, R. Writing narrative style literature reviews. Medical Writing, 24(4), 230–235, 2015.
16. Gardner, R. C., & Lalonde, R. N, Second language acquisition: A social psychological perspective, Paper presented at the 93rd Annual Convention of the American Psychological Association, Los Angeles, CA, 1985.
17. Godwin-Jones, R, Contextualized vocabulary learning, Language Learning & Technology, 22(3), 2018.
18. Hatch, E., & Brown, C,Vocabulary, semantics, and language education, 1995.
19. Johnson, D. D., Pittelman, S. D., & Heimlich, J. E, Semantic mapping, The Reading Teacher, 39(8), 1986, p779.

20. Krashen, S. D., & Terrell, T. D, The natural approach: Language acquisition in the classroom, Pergamon/Alemany Press, 1983.
21. Levelt, W. J. M., Roelofs, A., & Meyer, A. S, A theory of lexical access in speech production, Behavioral and Brain Sciences, 22(1), 1999.
22. Matsumoto, D. (Ed.), The Cambridge dictionary of psychology, Cambridge University Press, 2009.
23. Miller, The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information in the Psychological Review, Volume 63, Number 2, 1956.
24. Morris, P. E., & Stevens, R, Linking images and free recall, Journal of Verbal Learning and Verbal Behavior, 13(3), 1974.
25. Nation, I. S. P, Learning vocabulary in another language, Cambridge University Press, 2001.
26. Nation, P., & Waring, R, Vocabulary size, text coverage and word lists, In N. Schmitt & M. McCarthy (Eds.), Vocabulary: Description, acquisition and pedagogy, Cambridge University Press, 1997.
27. Neuman, S. B., & Wright, T. S, The magic of words: Teaching vocabulary in the early childhood classroom, American Educator, 38(2), 2014.
28. Nguyen, T. H. H, The effectiveness of learning vocabulary through games in comparison with that in traditional technique, International Journal of Educational Research, 4(5), 2021.
29. Pan, S. C., Zung, I., Imundo, M. N., Zhang, X., & Qiu, Y, User-generated digital flashcards yield better learning than premade flashcards. Journal of Applied Research in Memory and Cognition, 2022.
30. Peterson, L. R., & Peterson, M. J., Short-term retention of individual verbal items, Journal of Experimental Psychology, 58(3), 1959.
31. Pimsleur, P, A memory schedule, The Modern Language Journal, 51(2), 1967.
32. Pressley, M., Levin, J. R., & Delaney, H. D, The mnemonic keyword method, Review of Educational Research, 52(1), 1982.
33. Read, J, Assessing vocabulary, Cambridge University Press, 2000, p1.
34. Richards. J. C., & Platt. J, Longman Dictionary of language teaching and applied linguistics, Essex: Longman, 1992.
35. Ritter, F. E., Tehranchi, F., & Oury, J. D, ACT-R: A cognitive architecture for modeling cognition, WIREs Cognitive Science, 10(3), e1488, 2019.
36. Segalowitz, N, Automaticity and second languages, In C. J. Doughty & M. H. Long (Eds.), The handbook of second language acquisition, Blackwell, 2003.
37. Squire, L. R., Memory and brain systems: 1969–2009, Journal of Neuroscience, 29(41), 2009.
38. Stahl, S. A., & Nagy, W. E, Teaching word meanings, Lawrence Erlbaum Associates, 2006.

39. Sternberg, R. J., Cognitive psychology (4th ed.), Belmont, CA: Thomson Wadsworth, 2006.
40. Treisman, A. M., & Gelade, G, A feature-integration theory of attention, Cognitive Psychology, 12(1), 1980.
41. Vnucko, G., & Klimova, B, Exploring the potential of digital game-based vocabulary learning: A systematic review. Systems, 11(2), 2023.
42. Wang, S. Y., & Christiansen, M. H, Chunking in the second language: Implications for language learning and teaching, Language Teaching Research Quarterly, 44, 2024.
43. Wright, A., Betteridge, D., & Buckby, M, Games for language learning (3rd ed.), Cambridge University Press, 2006.

References:

(1) Ferrari, R. Writing narrative style literature reviews. Medical Writing, 24(4), 2015, p 231.
(2) Richards. J. C., & Platt. J, Longman Dictionary of language teaching and applied linguistics, Essex: Longman, 1992, p359.
(3) Ashcraft, M. H, Human memory and cognition, (2nd ed.), New York: Harper Collins College, 1994, p6.
(4) Morris, P. E., & Stevens, R, Linking images and free recall, Journal of Verbal Learning and Verbal Behavior, 13(3), 1974, p 310.
(5) Sternberg, R. J., Cognitive psychology (4th ed.), Belmont, CA: Thomson Wadsworth, 2006, p187.
(6) Squire, L. R., Memory and brain systems: 1969–2009, Journal of Neuroscience, 29(41), 2009, pp12711–12716.
(7) Matsumoto, D. (Ed.), The Cambridge dictionary of psychology, Cambridge University Press, 2009, p303.
(8) Ashcraft, M. H., & Radvansky, G. A, Cognition (6th ed.), Pearson, 2013, pp208-209.
(9) Ashcraft, M. H., & Radvansky, G. A, Cognition (6th ed.), Ibid, pp210-211.
(10) Ashcraft, M. H., & Radvansky, G. A, Cognition (6th ed.), Ibid, pp168-169.
(11) Ashcraft, M. H., & Radvansky, G. A, Cognition (6th ed.), Ibid, pp252-253.
(12) Miller, The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information in the Psychological Review, Volume 63, Number 2, 1956, p81.
(13) Miller, the Magical Number Seven, plus or Minus Two: Some Limits on Our Capacity for Processing Information in the Psychological Review, Ibid, p 90.
(14) Broadbent, D, Perception and communication, Pergamon Press, 1958, pp42-43.
(15) Peterson, L. R., & Peterson, M. J., Short-term retention of individual verbal items, Journal of Experimental Psychology, 58(3), 1959, pp193.
(16) Atkinson, R. C., & Shiffrin, R. M, Human memory: A proposed system and its control processes, In K. W. Spence & J. T. Spence (Eds.), The psychology of learning and motivation, Vol. 2, Academic Press, 1968, p90.

(17) Atkinson, R. C., & Shiffrin, R. M, Human memory: A proposed system and its control processes, Ibid, p92.

(18) Atkinson, R. C., & Shiffrin, R. M, Human memory: A proposed system and its control processes, Ibid, p93.

(19) Baddeley, A. D., & Hitch, G, Working memory, In G. H. Bower (Ed.), The psychology of learning and motivation: Advances in research and theory, Academic Press, Vol. 8, 1974, pp74-76.

(20) Baddeley, A., Working memory: Looking back and looking forward, Nature Reviews Neuroscience, 4(10), 2003, p836.

(21) Craik, F. I. M., & Lockhart, R. S, Levels of processing: A framework for memory research, Journal of Verbal Learning and Verbal Behavior, 11, 1972, p 671.

(22) Craik, F. I. M., & Lockhart, R. S, Levels of processing: A framework for memory research, Ibid, p 675.

(23) Craik, F. I. M., & Lockhart, R. S, Levels of processing: A framework for memory research, Ibid, p 677.

(24) Treisman, A. M., & Gelade, G, A feature-integration theory of attention, Cognitive Psychology, 12(1), 1980, p97.

(25) Krashen, S. D., & Terrell, T. D, The natural approach: Language acquisition in the classroom, Pergamon/Alemany Press, 1983, p71.

(26) Hatch, E., & Brown, C,Vocabulary, semantics, and language education, 1995, p1.

(27) Carter, R, Vocabulary: Applied linguistic perspectives, Routledge,2012, p2.

(28) Pimsleur, P, A memory schedule, The Modern Language Journal, 51(2), 1967, p75.

(29) Baddeley, A., Eysenck, M. W., & Anderson, M. C, Memory (2nd ed.), Routledge, 2017, p112.

(30) Pressley, M., Levin, J. R., & Delaney, H. D, The mnemonic keyword method, Review of Educational Research, 52(1), 1982, pp61–91.

(31) Belleca, F. C. D. G., Cammpued, K. R., Caballas, R. B., Guiruela, J. M. N., & Ocampo, D. M, Effectiveness of mnemonic method on students' language information retention, Journal of English Language and Pedagogy (JELPA), 3(2), 2025, p51.

(32) Pan, S. C., Zung, I., Imundo, M. N., Zhang, X., & Qiu, Y, User-generated digital flashcards yield better learning than premade flashcards. Journal of Applied Research in Memory and Cognition, 2022, p1.

(33) Johnson, D. D., Pittelman, S. D., & Heimlich, J. E, Semantic mapping, The Reading Teacher, 39(8), 1986, p779.

(34) Stahl, S. A., & Nagy, W. E, Teaching word meanings, Lawrence Erlbaum Associates, 2006, p91.

(35) Nguyen, T. H. H, The effectiveness of learning vocabulary through games in comparison with that in traditional technique, International Journal of Educational Research, 4(5), 2021, p77.

(36) Wright, A., Betteridge, D., & Buckby, M, Games for language learning (3rd ed.), Cambridge University Press, 2006, p2.
(37) Vnucko, G., & Klimova, B, Exploring the potential of digital game-based vocabulary learning: A systematic review. Systems, 11(2), 2023, P3.
(38) Wang, S. Y., & Christiansen, M. H, Chunking in the second language: Implications for language learning and teaching, Language Teaching Research Quarterly, 44, 2024, p85.
(39) Godwin-Jones, R, Contextualized vocabulary learning, Language Learning & Technology, 22(3), 2018, p2.
(40) Ritter, F. E., Tehranchi, F., & Oury, J. D, ACT-R: A cognitive architecture for modeling cognition, WIREs Cognitive Science, 10(3), e1488, 2019, p1.
(41) Ritter, F. E., Tehranchi, F., & Oury, J. D, ACT-R: A cognitive architecture for modeling cognition, Ibid, p10.
(42) Driscoll, M. P, Psychology of learning for instruction (2nd ed., chap. 10, Allyn and Bacon, 2000, pp. 347.
(43) Gardner, R. C., & Lalonde, R. N, Second language acquisition: A social psychological perspective, Paper presented at the 93rd Annual Convention of the American Psychological Association, Los Angeles, CA, 1985, p1.
(44) Gardner, R. C., & Lalonde, R. N, Second language acquisition: A social psychological perspective, Ibid, p5.
(45) Al-Khawaldeh, N. N., Al Khalaf, E. M., Rababah, L. M., Al-Shboul, O. K., Krishan, T. A., & Alkayid, M. M, Developing EFL learners' vocabulary repertoire through semantic relations techniques. Theory and Practice in Language Studies, 14(8), 2024, pp2552–2562.
(46) Neuman, S. B., & Wright, T. S, The magic of words: Teaching vocabulary in the early childhood classroom, American Educator, 38(2), 2014, p4.
(47) Beck, I. L., McKeown, M. G., & Kucan, L, Bringing words to life: Robust vocabulary instruction (2nd ed.), The Guilford Press, 2013, p2.
(48) Nation, I. S. P, Learning vocabulary in another language, Cambridge University Press, 2001, p1.
(49) Nation, I. S. P, Learning vocabulary in another language, Ibid, 20p4.
(50) Read, J, Assessing vocabulary, Cambridge University Press, 2000, p1.
(51) Segalowitz, N, Automaticity and second languages, In C. J. Doughty & M. H. Long (Eds.), The handbook of second language acquisition, Blackwell, 2003, pp282-283.
(52) Beck, I. L., McKeown, M. G., & Kucan, L, Bringing words to life: Robust vocabulary instruction (2nd ed.), The Guilford Press, 2013, p1.
(53) Nation, P., & Waring, R, Vocabulary size, text coverage and word lists, In N. Schmitt & M. McCarthy (Eds.), Vocabulary: Description, acquisition and pedagogy, Cambridge University Press, 1997, p11.
(54) Levelt, W. J. M., Roelofs, A., & Meyer, A. S, A theory of lexical access in speech production, Behavioral and Brain Sciences, 22(1), 1999, p5.