Strategies for a Large Vocabulary Learning Based on Sensorimotor Experiences Referencing the American Television Series *Community*

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Abstract

The purpose of this paper is to suggest a strategy to enhance vocabulary learning through a sensory-motor experience. A case study was conducted involving four college students who were all non-English majors and had intermediate TOEIC scores. The study emphasized the role of the brain. The material used was from season 1, episode 1 of the American television series *Community* (Russo & Russo, 2009). During the study, the four students participated in one instruction session, did three test activities assessing attention and saliency, collocation, memorization, and had an oral interview. In the attention and saliency test, the results revealed that three of the four participants were successful. In the collocation test, three participants were excellent, and one participant was fair. In memorization of an entire dialogue, Participant A was perfect and the other three participants were very good, despite some minor errors. In the oral interview, three participants were positive about using this new method, and one was critical. This participant preferred the traditional vocabulary learning method of matching form-meanings with vocabulary lists. The participants all agreed that this method was innovative and fun, but they all indicated that the instruction was too complicated and suggested that it should be adjusted to make it more understandable.

Keywords: vocabulary learning, strategy, sensorimotor, role of brain, TV series *Community*

Applicable level: tertiary

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I. INTRODUCTION

Learning vocabulary is always a big burden for second/foreign language (L2) learners. To memorize novel or forgotten words, they must deliberately go through a vocabulary list and read it as often as necessary, even while at home (Yamamoto, 2014). This is time-consuming work for L2 learners. To overcome such difficulties, English as a Foreign Language (EFL) teachers should develop effective strategies. Whatever strategies they use, the basic principle should be to match form and meaning. Technically speaking, arbitrary links between word forms and their meanings should be possible (Moseley et al., 2012).

Macedonia (2014) mentions that vocabulary learning should not depend solely on listening and reading. However, in reality, reading activities are a core concern to EFL teachers. They spend a great amount of time on reading skills rather than on speaking and writing. Most L2 input comes from reading material in an EFL classroom. Ignoring such EFL phenomenon, vocabulary learning might not succeed. For reference, this paper uses reading material for developing strategies.

Macedonia (2014) argued that “the body in cognition” should be considered for developing strategies. What was meant by “the body in cognition” is that the body is not just a passive container for the brain. Rather, the body actively participates in cognition. If a strategy includes the integration of physical and mental processes, vocabulary learning can be effective and efficient.

Metaphors are a good example of how to integrate physical and mental processes. A metaphor is a figure of speech that describes one thing in terms of another. Specifically, abstract words are described in terms of concrete words. In this way, the meaning of abstract words is represented easily in understanding abstractions. Metaphors consist of three orientations: structural, orientational, and ontological metaphors. Among the three, orientational metaphors will be introduced here because this concept is strongly related to this study’s subject.

Orientational metaphor is a concept based on spatial relationships (Baranyiné Kóczy, 2018; Horn, 2016; Nordquist, 2019). In other words, orientational metaphor orients abstract words into a spatial domain. For example, “happy is up” reflects that people understand “happiness” in an elevated position (SIL, n.d.). “Happy” is an abstract word and “up” is a concrete word. In this sense, metaphors influence the way people think and perceive the world around them (Lakoff & Johnson, 1980).

So, why do people use metaphors? The answer can be found in a sensorimotor process. A sensorimotor process refers to how sensory information from our environment is processed and translated into physical movements or actions by our bodies. In other words, it is the way our bodies and minds work together to interact with the world around us (Macedonia, 2014). Since the body and mind work together, this phenomenon is hidden within languages.

There are two views of cognition, the traditional and the grounded views. According to the traditional view, cognition deals with abstract\(^1\), arbitrary, and amodal\(^2\) symbols. In contrast, according to the embodied view, cognition is grounded in the brain’s system (Zwaan, 2014). Recently the embodied view has become favored and preferred (Barsalou, 2008; Soylu, 2016).

This paper suggests a strategy to improve vocabulary learning through sensorimotor experience, grounded cognition, and more. In this approach, vocabulary learning is accomplished by a combination of body and mind, multisensory perception, and motor actions. Through reading the Community (Russo & Russo, 2009) script, the relationship between abstract and concrete words will be focused on, and consequently, this will contribute to enhancing learners’ salience of vocabulary.

II. LITERATURE REVIEW: THEORETICAL PERSPECTIVE

Consider the word “cinnamon.” When a child acquires the label for a concept, i.e., a word, the child collects multisensory experience reflecting their interaction with the spice: olfactory and gustatory perception, consistency to

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\(^1\) Abstract symbols include words, grammatical rules, etc.

\(^2\) In cognitive science, the term “amodal” refers to a notion that is not connected with any specific sensory modality (e.g., vision, hearing, touch, taste, or smell). So amodal information can be represented and manipulated in an abstract, non-sensory way that is independent of any particular sensory pathway.
the touch\(^3\), visual characteristics, motor programs to interact with the spice and to articulate the word, sequence of phonemes, etc.

An L1 child has a diverse set of experiences associated with learning “cinnamon.” Through their eyes, nose, touch, sometimes drawing the spice “cinnamon” etc., they experience “cinnamon” and then use it as a word. What about L2 learners? How diverse are their experiences in learning a target word? That is why teachers and learners need to brainstorm theoretical perspectives.

1. Sensorimotor Experiences

What is the role of the brain when you are surrounded by the environment? How does your brain help you learn something from your environment? Let us start with the sensorimotor system in the brain. The sensory and motor systems are deeply linked (Brain Balance, n.d.). For example, imagine a rock falling on your head. First, you will see what is happening, and then your eyes will send information to your brain. Your brain will then send instructions to your neuromuscular system, like “Avoid the rock. You’re in danger.” This is a sensorimotor process. Researchers in cognitive neuroscience ask an important question regarding whether sensory and motor information is related to representing conceptual knowledge in the brain. They continue to be concerned with the relationship between sensory and motor information and understanding of concrete words, such as objects, actions, etc. (Foroni, 2015). Tomasino and Rumiati (2013) describe two different hypotheses associated with this issue.

Indeed, the extent to which conceptual representations are held to be grounded in sensory and motor systems has yielded different hypotheses as to how conceptual knowledge is organized. On the one hand, the embodied hypothesis promotes the idea that conceptual representations are modality-dependent and built from sensory and motor experiences, that is by re-enacting sensorimotor memories acquired through experience […]. Thus, recognizing objects, actions and words is accomplished by re-enacting sensorimotor memories that have been previously acquired (this is also called motor simulation). On the opposite extreme, the disembodied hypothesis holds that conceptual representations are abstract (symbolic) and modality-independent (amodal), separated from sensorimotor information. (para. 1)

In this context, the embodied hypothesis will be focused on in detail. Bai and He (2022) raised a significant issue about the relationship between the sensorimotor system and language processing and Foroni (2015) mentioned debates about this issue.

The reason for this discrepancy is that native-language learning generally co-occurs with bodily movements and actions to which the word refers. The conceptual development includes information received from all sensory modalities including kinesthetic and visceral […] while formal L2 learning usually occurs in an artificial environment without significant involvement of the majority of sensory modalities […] Through action-perception wiring, L1 action words may thus become directly linked to motor codes and programs. (p. 10)

Foroni (2015) implied that L1 and L2 language processing cannot be compared fairly because the majority of sensory modalities cannot be included due to the artificial L2 learning environment. Instead, he emphasized the importance of the sensorimotor system in language processing. Bai and He (2022) recognized the involvement of the sensorimotor system in L2 language processing, but they admit that “some differences were found in terms of degree or time course” (Bai & He, 2022, para. 2). Tomasino and Rumiati (2013) mentioned that sensorimotor activation was not automatically elicited by linguistic stimuli (words or sentences). Instead, the involvement of sensorimotor

\(^3\) Consistency to the touch indicates the degree to which an object maintains its physical properties even as time passes and through varied conditions. For example, when you touch the wall of your house in summer or in winter, the feeling is the same, thus, it has consistency to the touch.
activation can depend on the context of language processing (van Dam et al., 2010; van Dam, van Dijk et al., 2012; van Dam, van Dongen et al., 2012)

2. Body in Cognition

Body in cognition refers to the idea that the body influences the cognitive process. Here we must understand the relationship between the body and the mind. First, Gibbs, Jr. (2005) discusses the body in this context.

Each of us feels some intimate connection between who we are and our bodies. When someone punches my nose, I, Raymond W. Gibbs, Jr., and not someone else, experience pain. When I wonder if I feel happy, I consider this in terms of my own embodied being, and not someone else’s. When I experience the pleasures of sex, the discomfort of feeling cold, or the fatigue from running five miles, I clearly know that my body is the sole source of these sensations. Yet when I think about the existence of God, or try to solve a complex math problem, I have little awareness that my body has a place in my thoughts. Cognitive processes seemingly occur with little input from our bodies. (p. 14)

Gibbs, Jr. mentions that human beings can be aware of the existence of their bodies when they feel pain, cold, or happiness. However, they are not aware of their “body” when they engage in cognitively heavy work like solving a complex math problem. Unconsciously they learn to objectify the “body.” Body and mind seem like separate entities. However, Gibbs, Jr. argues that “My body has a place in my thoughts […] A body is not just something that we are” (p. 14). That is, the physical body is an integral part of the mind. His argument can be supported by the concept of grounded cognition (Barsalou, 2008). Grounded cognition rejects that the brain contains amodal systems. Instead, it purports that cognition comes from the interaction between representations through brain modality and situational environment. For example, suppose you want to grasp the meaning of “book.” Your past experiences of seeing a book and touching (bodily movement) a book influenced grasping the concept of “book.” These sensory (seeing) and motor (touching) experiences are linked to your brain.

Embodiment cognition is another form of connection between body and mind. The theory of embodied cognition suggests that language processing includes the same brain areas involved in other sensory, motor, and emotional experiences. For example, the sensory domains of the brain process sensory information from the environment, and the motor areas of the brain participate in some aspects related to movements. The emotional areas of the brain do their own work. Therefore, language processing is not only a purely linguistic process but is deeply connected to other knowledge or experiences (Buccino et al., 2017).

3. Action in Cognition

Traditionally, language meaning is conveyed by using abstract, amodal, and arbitrary symbols. Learners understand sentence meaning through words and syntactic rules. This traditional approach is based on the belief that language is a symbol manipulation system. Glenberg and Kaschak (2002) reject the traditional view of language with one interesting example.

[…] consider the possibility that meaning is embodied – that is, that it derives from the biomechanical nature of bodies and perceptual systems. […] For example, consider how a situation (e.g., a room with a chair) could be meaningful to an animal. […] a chair affords sitting for adult humans, but not for mice or elephants, who have the wrong sorts of bodies to sit in an ordinary chair. A chair also affords standing-on for the human. If the human has the goal of changing a light bulb in a ceiling fixture, the meaning of the situation arises from meshing the affordances of a light bulb (it can be stood on to raise the body) to accomplish the goal of changing the bulb. (p. 559)

4 This refers to “the motor patterns whose representation visual objects and their properties give rise to, both during explicit goal-directed acts” (Tucker & Ellis, 1998, p. 833).
This passage demonstrates that meaning cannot be conveyed exclusively with only the use of a dictionary and syntactic rules. That is, the abstract symbols of language (words, syntactic rules) are insufficient to extract and determine the meaning of the chair in this context. Therefore, “the abstract symbols of language must be grounded, or mapped, to the world if they are to convey meanings” (Glenberg & Kaschak, 2002, p. 558).

You might be confused by the chair story. According to your visual information, a chair is used to sit on. However, the character in the story is looking for different visual information for their goal of changing a light. In this context, the lesson is that visual information and the goal of action are deeply interrelated. For a better understanding of visual information, another example will be provided. This is from Zwaan et al. (2002).

Consider the sentences The ranger saw the eagle in the sky and The ranger saw the eagle in its nest. According to most theories of language comprehension, the linguistic input would be converted to a propositional representation […] such as [[SAW [RANGER, EAGLE]], [IN [EAGLE, SKY]]] and [[SAW [RANGER, EAGLE]], [IN [EAGLE, NEST]]]. Thus, the propositional representations for the two sentences would be largely identical, with the exception of the noun specifying the location. However, intuition suggests that this cannot be the whole story. After all, when a bird is in the air, it usually has its wings outstretched, and when it is in its nest, it usually has its wings folded. These differences are not captured in an amodal propositional structure like the one just given, although such a structure is routinely assumed by language comprehension researchers. (p. 168)

Barsalou (1999) argued that the building blocks of cognition are perceptual representations, not amodal propositions. He criticized perception and cognition researchers for not collaborating sufficiently, leading to a lack of knowledge about each other’s fields. Due to this situation, they may believe that perception and cognition reveal independent or specialized systems in the brain, which he calls amodal, lacking a sense of action. Now, most researchers believe that perception and cognition go together as perceptual-cognitive processes. By combining perceptual and cognitive information, we can better understand the world.

III. DESIGN

1. Research Questions

This paper is concerned with whether participants would benefit from the movement concept. Since the participants are intermediate English users, it is uncertain whether they can fully understand the concept. If they successfully focus on target words and the relevant instruction of the concept, it should not be difficult to verify their success. Specifically, when they are asked to memorize drama dialogues, any erroneous words will be noted and analyzed. If their errors originate from target words, it will signify that the participants failed to understand the concept. In contrast, if their errors are associated with non-target words, their understanding of the concept would provide them with benefits. In other words, such instruction will help the participants focus on the target words.

Another concern is lexical or grammatical collocation. Is it possible that participants can benefit from unconsciously learning the collocated word when a certain word is targeted and focused on? If so, they can develop a vast vocabulary.

Thus, here are some questions about these concerns. First, do the participants fully understand the movement concept instructions? Second, do they focus on and give salience to the target words? Third, do they gain any additional benefits beyond memorizing the target words? Fourth, is such instruction helpful for memorizing a full dialogue of a drama?

2. Participants

Participants in this case study were all four college students majoring in subjects other than English. According to
their Test of English for International Communication (TOEIC) scores\(^5\), they are considered intermediate level. They have experience using movies and dramas in their English learning and have often memorized vocabulary from such media. Therefore, their backgrounds are expected to be suitable for this case study. In terms of motivation, one participant (A) is highly motivated and enjoys learning English through movies and dramas. The second participant (B) attends movies and participates in drama-oriented English learning consistently, but his motivation is average. The third participant (C) also attends the class diligently, and his motivation is similar to Participant B. In other words, Participants B and C attend the class regularly, but they do not prepare and review their lessons. Participant D is similarly motivated to Participants B and C, but he is occasionally absent from the experiment. The following Table 1 provides information on the participants who have been described earlier.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Major</th>
<th>TOEIC score</th>
<th>Experience (in years) using movies and TV dramas</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Non-English major</td>
<td>Around 650</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>B</td>
<td>Non-English major</td>
<td>Around 600</td>
<td>5</td>
<td>Average</td>
</tr>
<tr>
<td>C</td>
<td>Non-English major</td>
<td>Around 600</td>
<td>1</td>
<td>Average</td>
</tr>
<tr>
<td>D</td>
<td>Non-English major</td>
<td>Around 700</td>
<td>3</td>
<td>Average</td>
</tr>
</tbody>
</table>

3. Material

The material utilized was an American television comedy series, *Community*, season 1, episode 1, which aired on NBC in 2009. The show follows a diverse group of students at Greendale Community College. It is a fictional community college and is depicted as an eccentric and dysfunctional school that serves as the main setting for humor and storytelling. The reason for selecting this television drama is that participants in this study specifically requested *Community*. Additionally, the show contains a lot of vocabulary. Because this college is notorious for a diverse group of strange students, their expressions are eclectic and utilize a wide vocabulary. Another good point is the running time. It’s only 21 minutes, which is a suitable time for the participants to enjoy. Therefore, this drama was deemed appropriate by the participants for experimenting with vocabulary learning.

4. Procedure

The case study lasted for two months and consisted of nine sessions, with each session lasting 1-1.5 hours. First, necessary instruction was provided regarding the brain mechanism involved. During this stage, it was instructed that word meanings are deeply related to our bodily experiences and environment. This includes necessary context. For example, in a sentence, “You’ve picked a fine school”\(^6\), the instructor focuses on the word, “pick”, which is originally used for physical things, but its meaning has been extended over time. During instruction, the instructor asked participants about the degree of difficulty of each word. This instruction activity lasted 40-50 minutes, depending on the length of the script.

Second, participants unconsciously focused on target words to promote the saliency of the words. After instruction, the participants were asked to instantaneously remember target words. This activity investigated the effect of attention and saliency. It lasted 10-15 minutes.

Third, another recall test required participants to check whether they noticed grammatical and lexical collocations. Since this study emphasizes word meanings, it was assessed if focusing on word meanings influences noticing words before or after a target word. For example, in an utterance, “our friendship will yield certain advantages”\(^7\), the word “yield” would be explained as a concrete concept and as an abstract concept. In other words, the original meaning of “yield” is physical, but it is extended as an abstraction. Through this process, it was hypothesized whether focusing

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\(^5\) Common European Framework of Reference (CEFR) designates scores of 550-780 as “intermediate.”

\(^6\) An utterance in *Community*, season 1, episode 1

\(^7\) An utterance in the same drama
on word meanings leads to noticing words before or next to the target words. In other words, it will be observed if target words are collocated with words before or next to them. This activity lasted 10-15 minutes.

Fourth, a memorization test was administered. After memorizing the required dialogue, participants were observed to see how many errors they made, and then their errors were analyzed according to target word or non-target word errors. If their errors were with non-target words that are out of attention, this experiment is satisfactory. This activity lasted 10-15 minutes.

Lastly, the participants were required to make comments about the new strategy they have been taught to learn new vocabulary. They were supposed to hand in written reports.

IV. RESULTS AND ANALYSIS

1. Responses to Instruction

A total of 11 words and phrases (stop, in a bit of, suspended, less than, had, get, attachment, picked, yield, less into, and look into) were taught because they were related to the abstract meaning of words before or after the selected words. For example, in “our friendship will yield certain advantages”, “yield”, a concrete word, helps the abstract meaning of the whole utterance be understood concretely. After the instruction, the participants’ ability to remember the 11 words was tested. Table 2 shows the results.

<table>
<thead>
<tr>
<th>Participants</th>
<th>No. of correct words (%)</th>
<th>No. of incorrect words (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7 (63.6%)</td>
<td>4 (36.4%)</td>
</tr>
<tr>
<td>B</td>
<td>7 (63.6%)</td>
<td>4 (36.4%)</td>
</tr>
<tr>
<td>C</td>
<td>3 (27.3%)</td>
<td>8 (72.7%)</td>
</tr>
<tr>
<td>D</td>
<td>8 (72.7%)</td>
<td>3 (27.3%)</td>
</tr>
</tbody>
</table>

As shown in Table 2, the participants, except C, received similar scores, which were good and could be evaluated as demonstrating successful attention and salience. One interesting finding was the number of correct items. Among 11 words, A scored 8, B scored 8, and D scored 9. These similar scores imply that the instruction was effective because three out of four participants were positively affected. Considering salience is an important aspect of second language acquisition (Cintrón-Valentin & Ellis, 2016; Tomlin & Myachykov, 2015), these scores indicate that the instruction was effective in boosting memory of the vocabulary learned.

In contrast, Participant C was very confused about the instructed words. He did not understand why he had to learn vocabulary using this method. The teacher’s instruction was too difficult to understand as the teacher used some concepts such as brain, sensory, motor, etc. Participant C preferred the traditional method of learning vocabulary to this method.

2. First Recall Test

Notably, none of the four participants, including Participant C, accepted the instructed method of learning vocabulary. To them, the method seemed too complex, and they did not think they needed a new technique to learn vocabulary. Although they acknowledged that vocabulary practice could be tedious, they felt they had no choice but to stick to their traditional learning method. This was their mindset before participating in this case study. However, through their participation, Participants A, B, and C gradually changed their attitudes toward vocabulary learning.

The first recall test investigated whether the participants could successfully remember the occurring words before or after target words, known as collocated words. Collocations are usually divided into two main syntactic categories: lexical and grammatical (Ozan, 2019). The difference between the two categories is whether grammatical items are...
included. If grammatical items co-occurred, it is a grammatical collocation. If only lexical items were included, it is a lexical collocation (Bui, 2021; Du et al., 2022; Xia et al., 2022). However, since dichotomy properties are not always distinct, the same phenomenon happens here. For example, it is unclear to which category “stop saying” belongs. In this paper, “stop saying” is assigned to the grammatical category. “Stop + Ving” reflects that “-ing” is included. Since “-ing” is a grammatical marker, “stop saying” can be considered a grammatical collocation.

Table 3 aimed to demonstrate the strengths of this method to the participants. They were instructed to remember lexical or grammatical collocated words which occurred before or after a target word, which were previously introduced. If they recalled the collocated words correctly, it indicated that they also learned target words along with their relevant collocated words. This indicated that they could learn much more vocabulary than before. Table 3 revealed that Participants A and D received perfect scores, and B missed only one, which suggests that these three participants had developed positive attitudes toward the new vocabulary learning method. However, Participant C continued to lag compared to the other three, as seen in Table 2.

Another reason to do this collocation activity was that collocation is considered a prerequisite for native-like proficiency in a second language (Bui, 2021; Du et al., 2022). By emphasizing native-like language learning during instruction, the participants can develop emotional confidence and a belief in their ability to learn the language.

3. Second Recall Test

This test investigated whether salient words (targeted words) would help memorization of the full dialogue. It was hypothesized that salient words would provide the context for memorizing the dialogue. There were a total of 28 utterances and 185 words in the dialogue. The results are presented in Table 4.

Table 4

Table 3

<table>
<thead>
<tr>
<th>Participants</th>
<th>No. of lexical collocation (total: 7)</th>
<th>No. of grammatical collocation (total: 4)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7</td>
<td>4</td>
<td>11 (100%)</td>
</tr>
<tr>
<td>B</td>
<td>7</td>
<td>3</td>
<td>10 (90.9%)</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>1</td>
<td>7 (63.6%)</td>
</tr>
<tr>
<td>D</td>
<td>7</td>
<td>4</td>
<td>11 (100%)</td>
</tr>
</tbody>
</table>

Table 4

<table>
<thead>
<tr>
<th>Participants</th>
<th>No. of utterances (total possible: 28)</th>
<th>No. of word errors (total possible: 185)</th>
<th>No. of target word errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>28</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>27</td>
<td>10 (preposition 1, conjunction 1, pronoun 1, clause 1, filler 1)</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>25</td>
<td>12 (contraction 1, exclamation 2, noun 1, tense 1, indefinite article 1)</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>28</td>
<td>11 (all errors were fillers)</td>
<td>0</td>
</tr>
</tbody>
</table>

Participants A and D were both perfect in memorizing the utterances, with Participant A also being perfect in memorizing the words in the dialogue. However, Participant D made mistakes in 11 out of 185 words. These 11 words were all fillers and not related to the context. Participant B was incorrect in one utterance and made mistakes in 10 out of 185 words. These 10 words were mostly grammatical words that were not closely related to context. Instead, he missed one clause consisting of three words. As this clause was only a small part of an utterance, it could not be said that he lost context.

Participant C’s performance differed compared to his responses to the instruction and second recall test. Although he made mistakes in 3 out of 28 utterances, his mistakes were all grammar-related. In this regard, salient words helped
develop context and consequently helped him to memorize successfully. Therefore, it can be said that this method facilitated the participants’ vocabulary learning.

4. Oral Interview

Table 5 shows the results of responses from the participants. Whatever a researcher says about their idea and whatever data and figures they bring to the front, the comments from the participants are also crucial in evaluating the idea positively. The following table presents these results.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Strength: It is amazing to learn abstract words in cooperation with concrete words. I enjoy vocabulary learning with this method. Weakness: I find it difficult to deal with some concepts. If this method were used with the entire class, I am not sure they would enjoy vocabulary learning as much as I do.</td>
</tr>
<tr>
<td>B</td>
<td>Strength: Thinking of target words, the collocated words amazingly come to my mind. This method also helps me memorize multi-word units rather than individual words. Weakness: It takes a long time to become familiar with this method, which can be challenging.</td>
</tr>
<tr>
<td>C</td>
<td>Strength: I feel that I can perfectly match the form of a word with its meaning. For example, when I recall “stop”, the next word “saying” automatically helps me to remember “stop.” It seems like I am killing two birds with one stone. I believe I can learn a lot of vocabulary with this method. Weakness: I find it difficult to understand the teacher’s instructions. It may take a long time to become familiar with this method.</td>
</tr>
<tr>
<td>D</td>
<td>Strength: I think learning vocabulary with this method is like magic. It’s wonderful. Weakness: However, I don’t think this is effective to learn vocabulary. I think I can learn vocabulary in the traditional way.</td>
</tr>
</tbody>
</table>

Participant A stated that this method was amazing because abstract words were expressed with the help of concrete words, and he enjoyed learning vocabulary. This is an important comment since learning vocabulary is often considered tedious. This paper aims to overcome this perception and develop creative strategies to improve vocabulary learning (Bafile, n.d.; Lewandowski, 2018). Therefore, Participant A’s comment proves that this method can be effective in learning vocabulary. However, he also mentioned that applying this method to the entire student population may be difficult as it includes some concepts that could become tedious for some students.

Participant B also provided positive feedback by demonstrating his ability to develop a sense of collocation (Espresso English, n.d.; Sonbul et al., 2022). If the attention and saliency in this method helped him develop a sense of collocation, it is unsurprising that it was successful. He also mentioned multi-word units, which consist of two or three words, and how they helped improve his vocabulary learning. However, he also acknowledged that the method was too difficult and took a long time to understand.

Participant C, who was initially slow, also implicitly referred to the idea of multi-word units and collocation. Although not explicitly mentioned, he eventually understood the importance of these concepts for vocabulary learning. The only weakness he mentioned was that the method was hard.

Participant D was critical of the method, stating that while the idea was excellent, he did not need it as he was comfortable with the traditional method of matching word forms and meanings. He also stated that he would not have much time to study English.

In summary, Participants A, B, and C provided positive feedback about this method, while Participant D disagreed. The common issue among all four participants was that the method was difficult to understand.

9 Participants’ comments were all translated by the researcher.
V. DISCUSSION AND CONCLUSION

1. Do the Participants Fully Understand the Instructions About the Movement Concept?

As shown in Table 5, all participants admitted that the instruction was difficult to understand and that they could not relate the instruction to vocabulary learning. To consider this, let us begin with the abstract meaning of words. Since concrete words are always related to referents, L2 learners easily memorize them. However, abstract words are different. They have no visible referents (objects) in the world. As it is known, language learners must address arbitrary links between word forms and their meanings to successfully learn vocabulary. How can learners deal with the abstract meaning of words? Addressing this question, Moseley et al. (2012) described emotion terms.

How can the meaning of words, which are used to speak about internal states of the body and therefore typically have abstract meaning (e.g., “fear”, “dread”, and “spite”), be learned? The classic explanation of meaning, which links words to referent objects, does fail here because the objects the words relate to are, if existent at all, not directly accessible. Therefore, the teacher cannot point to an object and say: “This is fear.” A solution to this problem has been offered by language theorists. Accordingly, the meaning of an abstract emotion word is typically established by using the word in action contexts, when language learners naturally express relevant emotions in their behavior. (pp. 1634-1635)

According to Moseley et al., language learners can observe how people express abstract words in their action contexts and learn the relevant meanings. In other words, action (expressing emotions) and cognition (learning the relevant meaning) are involved in learning abstract words. In recent years, it has been discovered that action and perception are integrated and that the two concepts function actively in processing language, particularly abstract words (Pulvermüller & Fadiga, 2010). This argument, which is called the integration view, is supported by Goldin-Meadow and Alibali (2013) and Tomasello (2005). Briefly, abstract meanings are specified by action (body movement). Based on this realization, language learners can better understand abstract words. Yet, in this regard, these explanations were too complex for the participants, so examples were provided for them. Unfortunately, they did not work well.

2. Do They Give Attention and Salience to Target Words?

There is a tendency among second-language learners to focus on open-class words rather than on grammatical cues, as described by Cintrón-Valentine and Ellis (2016) regarding this phenomenon as follows:

Many grammatical form-function relationships in English, like grammatical particles and inflections such as the third-person singular -s, are of low salience in the language stream. This is a result of the well-documented effect of frequency and automatization in the evolution of language. The basic principles of automatization that apply to all kinds of motor activities and skills (like playing a sport or a musical instrument) are that through repetition, sequences of units that were previously independent come to be processed as a single unit or chunk [...]. The more frequently they use a form, the more speakers abbreviate it: this is a law-like relationship across languages. (p. 3)

This is related to psychophysical salience. What occurs in this process is that L2 language knowledge provides top-down support (Ellis, 2016). Top-down orientation usually lacks saliency, which is why grammatical cues often fail to be noticeable.

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10 Regarding the classic explanation of meaning, Moseley et al. (2012) mentions, “A dominant view puts that semantic learning emerges when words are related to objects in the world and the child stores the word-world relationship by correlating the word occurrence with that of objects” (p. 1634).

11 Here’s an example about action contexts. Suppose your child gets a toy present from someone. You’ll see them laughing and jumping around to express their happiness.
In Table 3, Participants A, B, and D showed more than half corrected word saliency. With the help of instruction, they were able to focus on the target words. Considering they did not get any notice taking the recall test, their scores were not bad. However, it was interesting that the participants were not satisfied with their scores. It seemed that they did not care about the saliency test.

3. Do They Benefit in Addition to Memorizing the Target Words?

In Table 3, participants were asked to recall collocated words, which was a surprise test that they had not been previously informed about. When they were instructed to recall collocated words, the participants were confused as they had not experienced such a test before and asked what they had to recall.

Participants A and D were correct in both lexical collocations and grammatical collocations. Participant B was excellent, too, though he made one mistake in grammatical collocations. Participant C was not bad compared with his score rate (36.4%) in Table 2 and received almost double the score rate in Table 3. Although this test was not previously announced, how could they get good scores and successfully remember collocated words? The answer would be from the instructions themselves. During the instruction, the principle was “abstract words are expressed in the context of concreteness”, and the teacher explained the principle using examples.

1) The state bar has suspended my license.
2) You’ve picked a fine school.

In 1) “my license” is functionally an abstract word and the original meaning of “suspend” is concrete (action-based). The meaning of “suspended my license” consists of a concrete word plus an abstract word. In 2) “a fine school” is functionally an abstract word and the original meaning of “pick” is also concrete. In other words, to understand “my license” and “a fine school”, participants were surrounded by a concrete environment. In this process, concrete words are deeply connected with abstract words, and they turn out to be collocations. Participants were satisfied with their correct scores because they did not expect such good results.

4. Is the Instruction Helpful to Memorize a Full Dialogue From the TV Drama?

As shown in Table 3, Participant A was perfect and Participant B was excellent with some minor grammatical errors. Participant C was good even though he made 11 grammatical errors and missed one content phrase. However, he was perfect at remembering the 11 target words. Participant D was perfect while missing 11 unimportant fillers. Of course, this test was announced one week in advance.

What was the role of a target word with a collocated word for recalling the full dialogue? The correct reasons cannot be certain, but it can be presumed that target plus collocated words become a powerful context that elicits a storyline necessary for recall. Instruction leads to the integration of target plus collocated words and consequently, the memorization and recalling of the dialogue.

In conclusion, though all the participants initially showed negative attitudes toward instruction, they changed their minds and had positive attitudes. As they took tests over time, they found their abilities gradually changed. Of course, Participant D was different. He had good scores on the tests but preferred the traditional method of learning vocabulary. We understand that everybody cannot be on the same continent. If most learners have positive attitudes like our participants, this method will develop and be refined as an effective method.

Here are some significant implications. The idea presented in this study is still in its early stages, indicating that it is not yet ready to be applied in the EFL classroom. Further experimentation is required before implementing this idea in the classroom.
REFERENCES


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APPENDIX
Transcript of the Scene From *Community*¹²

Cold open, Scene 3
Featuring: Professor Ian Duncan and Jeff Winger
Setting: Professor Ian Duncan's office in the Behavioral Sciences building
(There is a knock on Professor Duncan’s door.) (Jeff opens the door and enters.)
Duncan: Jeff Winger, genius at law.
Jeff: You gotta stop saying that.
Duncan: I will never do that. Sit down. Sit down. So, what is my lawyer doing here?
Jeff: I’m a student.
Duncan: Well, that cannot be an inspiring journey.
Jeff: Uh, I am in a bit of a jam. The state bar has suspended my license. Uh, they found out my college degree was less than legitimate.
Duncan: Well, I thought you had a bachelor’s from Columbia.
Jeff: Now I have to get one from America.
Duncan: Oof.
Jeff: And it can’t be an e-mail attachment.
Duncan: Well, you’ve picked a fine school.
Jeff: Yes and I’m hoping that our friendship will yield certain advantages. You know, academic guidance...
Duncan: Yes.
Jeff: ...moral support...every answer to every test for every one of the classes that I’m taking. Uh, here’s my schedule.
Duncan: Now, Jeff, just by asking that you have insulted the integrity of this entire institution.
(A student outside the office is urinating behind a dumpster and Duncan gets up from his desk to yell at him.)
Duncan: Oi! Waster! Not a bathroom! Not a bathroom!
Jeff: Okay. Duncan, you did seem less into integrity the day that I convinced twelve of your peers that when you made that U-turn on the freeway and tried to order chalupas from the emergency call box that your only real crime was loving America.
Duncan: I’ll look into it.
Jeff: Thank you. Duncan, you are a good man.
Duncan: Jeff, are you familiar with the adage “Cheaters never prosper?”
Jeff: No...and if I wanted to learn something, I wouldn’t have come to community college.

¹² Bold type words are target words.