

Teaching Vocabulary Using the Semantic Feature Technique in Saudi EFL Virtual Classrooms; Students' Attitudes and Challenges

Thana Adakhieel

Department of English Language and Translation, Qassim University, Onaizah, Kingdom of Saudi Arabia

Email address:

Thana-a@hotmail.com

To cite this article:

Thana Adakhieel. Teaching Vocabulary Using the Semantic Feature Technique in Saudi EFL Virtual Classrooms; Students' Attitudes and Challenges. *International Journal of Language and Linguistics*. Vol. 9, No. 6, 2021, pp. 304-319. doi: 10.11648/j.ijll.20210906.15

Received: November 16, 2021; **Accepted:** December 14, 2021; **Published:** December 24, 2021

Abstract: EFL learners' weak performance in English vocabulary is a problem commonly found in a foreign language context. This research aims to suggest a fun and exciting way for helping students memorize a lot of new words quickly and better. The researcher presents the semantic feature technique to achieve this goal. In addition, this study generally attempts to investigate students' attitudes towards learning vocabulary via their semantic features in an EFL virtual setting. It also sheds light on the challenges they faced during their involvement with such a technique. Fifteen female intensive course students at Onaizah College for Sciences and Arts voluntarily participated in this research. The data were obtained by analyzing students' questionnaires and the observations in the virtual class during semantic feature activities. The questionnaire findings show students' positive attitudes towards semantic feature activities. On the other hand, results of the observation indicate four major fundamental problems students encounter while applying this technique, 1) the time gap between participant and researcher, 2) students' cheats, 3) weak level in English. 4) students' shyness to ask or participate. However, observation shows that they respond to this technique enthusiastically. Hence, semantic feature activities could be a practical technique if carefully planned to teach vocabulary.

Keywords: Attitudes, Vocabulary, Semantic Feature, Saudi EFL Students

1. Introduction

Nilforoushan states that vocabulary learning is a significant part of the learning process of any language. She adds that most of the teaching methods focus on learning vocabulary. She also says that vocabulary is the subject of many studies that contribute to language learning [35]. Rohmatillah asserts that speakers cannot communicate and convey their desired meaning without using vocabulary [44].

Despite the importance of vocabulary, Rababah indicates that Arab students suffer from low performance in English vocabulary due to their lack of words, flawed teaching methods, and unsuitable atmosphere [39]. Saudi students are among those students. Altyar says that even though Saudi students spend seven years learning English in school, they graduate with a high deficiency in their vocabulary [7]. Nilforoushan assures that most Saudi students who enroll in the English Department with low

vocabulary levels face problems when they advance to higher levels [35].

One of the suggested methods for solving this problem is teaching vocabulary by using the semantic feature of words. Lamb defines the semantic feature as the single characteristics that precisely describe a word's meaning. He also states that semantic feature analysis means decomposing the meaning of a word into elements of certain features using different ways. "For example, semantic features for the word *car* may include {vehicle} (superordinate category), {has four wheels} (external component), and {is used for transporting people} (function)" [28]. Fattah indicates that many studies have been made to determine the effectiveness of semantic feature analysis in vocabulary development. He adds that semantic feature analysis proved effective in dealing with either small groups or the whole class [23]. Moreover, semantic feature analysis helps poor readers, learning disabled students, and students with different cultures [25].

This study tries to find out whether the semantic feature improves the vocabulary of intensive course students at Onaizah College for Sciences and Arts. The researcher undertakes this study to identify the semantic feature effect on teaching vocabulary based on the previous background. To discover the impact of the semantic feature on their vocabulary, the researcher will determine the level of students' vocabulary before applying semantic feature activities. Hopefully, the study findings will give clear insights into the effective use of the semantic feature activities to develop the English vocabulary of intensive course students at Onaizah College for Sciences and Arts.

2. Literature Review

2.1. Vocabulary

2.1.1. Definition of Vocabulary

Cambridge International Dictionary defines vocabulary as "all the words used by a particular person or all the words used by a particular language or subject, all the words used in a particular language, total number of words, set of words that it used, and words to learn" (p. 119) [40]. Diamond and Gutlohn say that "vocabulary is the knowledge of words and word meanings." [16]. Erni divides vocabulary as "the content and function word of a language that is learned so that it becomes a part of the child's understanding, speaking, reading and writing." [20].

2.1.2. The Importance of Vocabulary

Vocabulary is considered an essential element in learning a foreign language. A language cannot be learned without knowing its lexis with their different meanings [54]. Also, one of the main fundamentals for learning a foreign language is vocabulary alongside pronunciation and grammar [36]. Furthermore, Vocabulary is the basis for English skills such as Listening, speaking, reading, and writing [2]. In addition, to achieve language proficiency, a learner needs to study its words [44]. Moreover, vocabulary is crucial for communication competence. Thus, a lack of words can cause severe problems for learners [5]. Finally, Richards & Renandya conclude that proficiency in vocabulary increase motivation among learners [43].

2.1.3. Types of Vocabulary

There are three types of vocabulary:

1. Active vocabulary: i.e., the word we customarily use in speaking and probably runs from 5.000 to 100.000 words.
2. Reserve vocabulary: i.e., the words we know, but we rarely use them in writing a letter. We use those words when we have more time to consider or search for a synonym.
3. Passive vocabulary: i.e., the word we recognize vaguely but are not sure of the meanings. We never use them in speech or writing, and we know we have seen them before. (p. 119) [40].

2.1.4. Functions of Vocabulary

Vocabulary has a significant function in language. It is used to build sentences. Vocabulary is like the bone for language, just like the bone is for the body. Without vocabulary, language cannot be complete. Vocabulary enables people to express their feelings. Also, a teacher cannot deliver the lesson to students without words. In addition, vocabulary is how society can share its ideas, which leads to social development. Thus, vocabulary is the bone for language that completes it. [34]

2.1.5. Approaches to Teaching Vocabulary

Schmitt [47], Nation and Newton identify two approaches to teaching vocabulary, the explicit or direct approach and the incidental approach [33].

1. The straightforward approach

Atyari says this is suitable for the 2000 most frequent words in English [7]. According to Altyari, Allen and Harely state that explicit teaching can fall into two categories. "The first category, 'metacognitive counseling techniques,' includes instructions on how to memorize and learn new words. The second category, 'guided cognitive learning techniques,' includes techniques like 'observation,' 'explanation,' 'mnemonic devices' and explicit practices" (p. 12) [3]. However, since the explicit approach is suitable only for common words, another method is suggested to deal with the other huge number of words, the incidental approach [7].

2. The incidental approach.

Altyari indicates that this approach is indirect; it points the learner's attention towards the vocabulary message. For this reason, communicative activities serve this approach [7]. Also, reading is an incidental technique that helps intermediate and advanced learners to acquire new words [55]. Thus, Altyari assures that students should be much exposed to reading materials [7]. However, Nation points out one disadvantage of this approach. It is not suitable for beginners since they need at least to know 95% of the words to guess the meanings of new words [31]. Altyari states that for this reason, teachers should use both approaches. He also suggested other techniques such as keywords and word association [7].

2.1.6. The Teaching of Vocabulary in Saudi Arabia

Alsaif states that Saudi students leave school with a low level of vocabulary. The reasons for this problem are as follows. First, school English books in Saudi Arabia contain 2800 words from about 5000 English common words. He argues that this number of words is not enough for being proficient in vocabulary. He adds that Saudi students graduate from school with only 10% of their words. For this reason, the number of words in textbooks is not merely the problem [6].

Secondly, Altyari indicates that those textbooks adopt the communicative approach as a way of teaching which means less exposure to the mother tongue and more use of the foreign language as the medium of instruction [7]. Unfortunately, Zimmerman says that Saudi schools use Arabic as the mean for teaching English [55].

Third, Altyari adds to the inappropriate techniques used in teaching vocabulary in Saudi Arabia. Those techniques do not

help students in remembering words effectively. There are many reasons for that, such as the insufficient time spent teaching and learning vocabulary in the classroom. Also, the words used are useless, and students do not work hard to master them fully. In addition, other reasons resulted from the unfair practices of the teachers and the students in the classroom [7].

2.1.7. Vocabulary Difficulties in Foreign Language Learning

Rohmatillah mentions some of the difficulties that students face when trying to learn new vocabulary. Some of these problems are spelling and pronouncing words, knowing the meaning of words, inflections of word forms, and the large number of words needed to be learned by students. He also assigns learning difficulties to different levels of language. For example, "pronunciation difficulties are related to the sound system of English, inflections, and word forms are related to the morphological system, word associations, such as collocations, and phrasal verbs are related to semantics, the word categories relevant to syntax and so on" (p. 85) [44]. Afzal also focuses on the main difficulties that Saudi learners face, such as vocabulary meanings, spelling, synonyms, prefixes, and suffixes [2].

2.2. Semantic Feature

2.2.1. Definition of Semantic Feature

"Semantic features of words provide meaningful information that helps activate semantic access to words. The complex meaning of the word is built from a composition of the simplest feature units. Activation of semantic features leads to activation of the most compatible words in the mental lexicon" (p. 2) [28]. "Words may be grouped (related to each other) according to different criteria. Animals, for example, maybe grouped in terms of physical or perceptual features; they may be grouped in terms of nonphysical features, such as pet, wild, food, and so forth. From a stylistic point of view, the verbs steal, pilfer, lift, pinch, swipe, and snitch may be subgrouped in terms of being formal (steal, pilfer), colloquial (lift, pinch), and slang (swipe, snitch)" (p. 2) [10].

"Shared semantic features define one aspect of relatedness in the mental lexicon. For example, other birds, such as robins, sparrows, and ravens, share the feature, {has wings} with vultures. This shared property would create priming or shared activation between these words in the process of lexical access" (p. 10) [28].

An example of semantic features is illustrated in table 1.

Table 1. Illustration of semantic feature category. [26].

| Living things | Concepts | Artifact | Concepts |
|---------------|---------------------------------|---------------------|----------------------------|
| Categories | Examples | Categories | Examples |
| Mammals | a cat – a donkey- a dolphin | Furniture | a door – a chair – a lamp |
| Birds | a pigeon- a swan- a parrot | Vehicles | a car – a plane – a bus |
| Plants | a rose – a linden- a daisy | Kitchen items | a pot – a spoon – a mug |
| Body parts | a tooth- a nose – a heart | Tools | a spade – an axe – a rake |
| Vegetables | a carrot – an onion – a pea | Weapons | a sword- a bow – a pistol |
| Fruits | an apple – a cherry – an orange | Clothing | a hat – a T-shirt- a skirt |
| | | Musical instruments | a piano – a flute – a harp |

2.2.2. The Importance of Semantic Feature

The semantic feature is one way that helps the learner in imitating how the brain organizes information. It also guides the students in identifying the semantic connection between words. In addition, it highlights the "uniqueness" of words. Furthermore, it develops the students' personal and academic words. For this reason, it is advisable to give the students various activities that present different semantic sets. [9]

Amer states;

"Research suggests that the human mind takes account of such similarity of meaning in organizing words. Hence, it is plausible to assume that a method of teaching that takes an understanding of the psychological processes underlying semantic relatedness must be more effective pedagogically than one that does not. It is, therefore, logical to explicitly teach some second language vocabulary in semantic fields. Research has shown that the semantic feature analysis grid or matrix effectively presents and develops academic and non-academic vocabulary. By offering learners a visual representation, via a matrix, of how words are alike and different, learners can analyze the relationships among the

given words. This way strengthens learners' retention of vocabulary in the long-term memory because this type of pictorial representation is much easier for learners to remember than merely the lists of characteristics of words (p. 2). [10]

2.2.3. Advantages and Disadvantages of Semantic feature

Shameem introduces some advantages and disadvantages for the semantic feature as follows; [48]

(i). Advantages

1. The Semantic Feature Analysis helps to enhance the learner's ability to understand and develop vocabulary skills.
2. It equips the students with the insight to figure the related features to differentiate one word from another.
3. The Semantic Feature Analysis helps the learner to realize the dictionary meaning of a word without using it.
4. The Semantic Feature Analysis gives the learner's ability to put the right word in the right place.
5. The Semantic Feature Analysis gives the instructor an idea of what the students know about a specific topic and

plans their lesson accordingly.

(ii). Disadvantages

1. The Semantic Feature Analysis cannot explain the connotative or figurative meaning of words.
2. It cannot analyze all vocabulary items of the language.
3. "The Semantic Feature Analysis is Limited in focus and mechanical in style."

2.2.4. Procedure to Teach the Vocabulary Using the Semantic Feature

Fattah explains this procedure by saying that it begins when the instructor presents the new word by writing it on the board. Then they will ask this question "what is it?", at the same time, the instructor should notify the students that they need provide a general word to explain this word. For example, they would give the general term/category 'machine' for the specific word 'computer'. After that, the teacher will ask this second question, 'what is it like?'. To answer this question, students should provide features for the word 'computer,' which makes it different from other words such as "being able to play games." Finally, the instructor would ask them 'give me examples,' and they would answer 'P.C.' or 'MacBook.' [23]

2.2.5. Some Difficulties That May Hinder the Implication of Semantic Feature

There are some arguments concerning the efficiency of using words that are semantically related. Although many scholars support such a method, others are against it. They claim that introducing words that are semantically related may cause overlap among words. They also say that because of "cross association and possible overloading in the short-term memory, vocabulary retention might be even hindered" (p. 408). [21]

2.3. The Related Previous Studies

Some studies have been done in teaching vocabulary and using the semantic feature and their contribution to English teaching. Some of the findings are presented in the following section.

Erni conducted research entitled the effectiveness of using semantic feature analysis in teaching English vocabulary for elementary school. She found that semantic feature analysis effectively increased the students' achievement in learning vocabulary, making them interested in learning English [21].

Dilek & Yuruk investigated the effect of using semantic mapping compared to using the traditional way on vocabulary learning. They conducted their study on 32 students at the pre-intermediate level of English at Selcuk University. They also attempted to find out the students' attitudes towards semantic mapping. This study showed that semantic mapping was more effective in teaching vocabulary than the traditional technique. In addition, students' attitudes were in favor of the semantic mapping technique. [17]

Nilforoushan focused on teaching vocabulary through semantic mapping on EFL learners' awareness of the affective dimensions of deep vocabulary knowledge. The study was conducted on sixty intermediate EFL female adult learners.

The results revealed that the students' awareness of deep vocabulary improved because of semantic mapping. [35]

Saragih tried to determine whether Semantic Mapping Technique affects midwifery students' technical vocabularies at the University of Prima Indonesia. Results showed that the Semantic Mapping technique has a significant effect on midwifery students' specialized vocabularies. [46]

Natsir entitled developing vocabulary through semantic feature analysis at the second-grade students of S.M.P. Negeri 2 Sungguminasa Gowa. He concluded that semantic feature analysis was more effective than teaching without applying semantic feature analysis in developing English vocabulary for the second-grade students of S.M.P. Negeri 2 Sungguminasa Gowa. [33]

Lam examined the treatment efficacy of semantic feature analysis on verb retrieval. The study resulted in positive outcomes concerning semantic feature analysis. [27]

Al-Otaibi assured in her research that semantic mapping expanded the vocabulary of nursing students at King Saud University (K.S.U.). [4]

Some research that supports this matter is as follows; Sadeghi & Taghavi aimed to determine the effectiveness of semantic mapping on reading comprehension. Participants in this research were 120 male and female lower intermediate undergraduate students taking a general English course at Urmia University. The findings supported the benefits of the application of semantic mapping. The semantic feature proved to be also effective in the teaching of reading skills. [45]

Afrianti concentrated on improving reading comprehension by using semantic mapping in pre-reading of the tenth-grade students of senior high school in Mempawah. The findings showed that the students' reading comprehension improved and that the student's responses were positive. [1]

Reza & Azizah, in their research entitled "The Effect of Semantic Mapping Strategy on Students' Vocabulary Learning Result" at the Grade Ten of S.M.K. Pusaka 1 investigated whether or not Semantic Mapping Strategy affects on Students' Vocabulary Learning Result. The research concluded that Semantic Mapping Strategy has a significant effect on Students' Vocabulary Learning results. [41]

Asadollahfam conducted an article entitled "The impact of semantic mapping instruction on Iranian EFL learners' reading comprehension of expository texts." He found out that semantic mapping instruction develops reading comprehension of expository texts. Moreover, the research proved that specific kinds of semantic maps were more effective on reading comprehension performance and that students reacted faster than usual. [11]

In their study, R., Yusri, & Jufri investigated the impact of EFL material development based on the semantic feature analysis model in improving students' learning achievement in English writing and translation subject. The study demonstrated that the Semantic Feature Analysis model could be used as one of the effective models in EFL and writing. Semantic feature analysis also proved to be effective for teaching writing skills. [38]

Finally, the semantic feature is also an effective technique

for teaching Aphasia students, as shown in the following study. Rebstock finds out in his study "Effects of semantic feature analysis+ multimodal communication program for word retrieval and switching behavior in primary progressive Aphasia." [39]

3. Research Methodology

3.1. Participants of the Study

Participants in this study were Saudi EFL intensive course students at Onaizah College for Sciences and Arts. Students volunteered and consented to be part of the study. They were willing to respond positively to help in fulfilling the objectives of the study. They were chosen among 129 intensive course students based on their readiness to follow up with the researcher and do tasks as quickly as possible. Sex was controlled (all the subjects were females).

3.2. Research Design

The data collection tools for this study were chosen based on the research questions. They served to meet the researcher's interest and to answer the research questions. This study was obtained quantitatively and qualitatively from a questionnaire and an observation to validate the research findings. Data were collected to investigate; 1) students' attitudes towards semantic feature technique, 2) the difficulties that students face when using this technique for learning vocabulary.

3.3. Instruments

The data collection methods in this study are; a) a questionnaire, b) an observation. The questionnaire and the observation correlate in some aspects and support each other.

3.3.1. Observation

The first tool used in this research was observation. Creswell defines observation as "A process of gathering open-ended, firsthand information by observing people and places at a research site" (p. 213). [14]

The researcher attempts to observe virtual classroom activities and their result to relate them to the students' attitudes towards using the semantic features of words.

The researcher performed continuous supervision over the sample to observe the learners' participation and challenges they encounter while learning the new words using the semantic features of the words to know and memorize them and their meaning. The observation was chosen to determine how the students respond to this technique. The observation instrument was used to prove the theoretical assumptions about the semantic feature effectiveness in teaching vocabulary.

To assess students' perceptions of the semantic feature technique for teaching words, 15 students participated in the virtual class. The observation was done in the reading skills class for intensive course students of the English department at Onaizah College for Sciences and Arts. The intensive course is one term that determines who joins the English

department and who does not base on class performance and exam results. Using participant observation, the researcher recorded students' performance and took field notes about the students' behavior during the process that extended throughout four weeks, precisely 15 minutes in 2 days a week, to ensure and provide accurate data analysis.

However, although previous researches on the effectiveness of the semantic feature technique showed that it is effective for teaching vocabulary to students with speech disorders. [18, 19, 28, 22]. This research showed that Saudi female EFL students at Onaizah College for Sciences and Arts, based on the researcher's observation of the student's performance during the experiment, are weak in memorizing English vocabulary, especially those in the intensive course. For this reason, this technique worked very well with them.

3.3.2. The Questionnaire

The second research instrument was a closed questionnaire 15-items; 4 are multiple-choice introductory questions, while the others are questions to be answered using a standardized 5-point Likert Scale. This questionnaire was administered to 15 students: participants of the study. It was used to collect data about students' perceptions towards using the semantic feature for teaching vocabulary. The questionnaire's items were from many related research studies such as [53, 24, 52] and were modified by the researcher according to the purposes of the study.

3.4. Data Analysis

Data in this research was analyzed in both ways quantitatively and qualitatively. The questionnaire was analyzed using google forms to conduct frequencies and percentages. The data collected was presented in charts. Then it was discussed and linked to the research questions. On the other hand, qualitative data collected from recorded virtual lectures and the researcher as a participant-observer during the experiment was contently analyzed. Part of the content analysis method was to categorize data to draw meanings. [49]

4. Results and Discussion

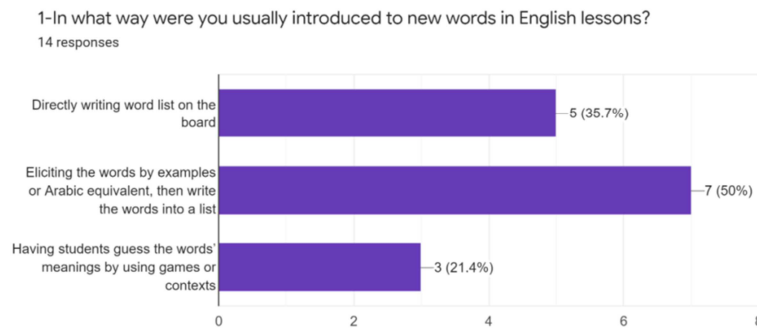
4.1. Results

The researcher used a 15-items questionnaire to investigate Saudis' EFL students' attitudes towards using the semantic feature technique for learning vocabulary. The questionnaire was analyzed quantitatively. Each item of the questionnaire was analyzed separately. The frequency and percentage of each were presented in Par and Pie charts. This section discusses the results of the questionnaire and the observation used to answer the research questions.

Results Related to Research Question 1: What are intensive course students' attitudes at Onaizah College of Arts and Sciences towards using semantic feature technique in learning vocabulary?

The upcoming charts indicate the descriptive statistics of items related to research question one. Figure 1 presents the

analysis of question 1 of the questionnaire; In what way were you usually introduced to new words in English lessons?



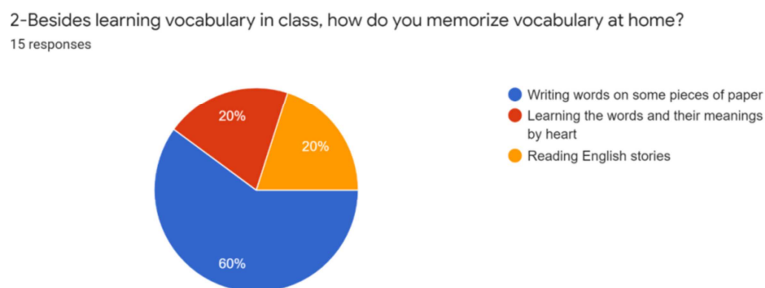
In what way were you usually introduced to new words in English lessons?

Figure 1. Analysis of students' responses to question 1.

Figure 1 indicates that the most common technique is usually used for teaching vocabulary to the participants. The majority of 50% chose option (2), assuring that they were typically introduced to words by examples or Arabic equivalent. Others of 35.7% have chosen number (1), claiming that they were introduced to new words through directly writing word lists on the board. The less percentage of 21.4% chose a number (3), saying that they used to guess the

meanings of new words by using games or contexts. The high percentage indicates less use for innovative ways to teach vocabulary and more emphasis on the grammar-translation old method, which focuses on teaching vocabulary on giving the Arabic equivalent for new words.

Figure 2 presents the analysis of question 2 of the questionnaire; Besides learning vocabulary in class, how do you memorize vocabulary at home?



Have you ever been taught vocabulary using the semantic feature technique?

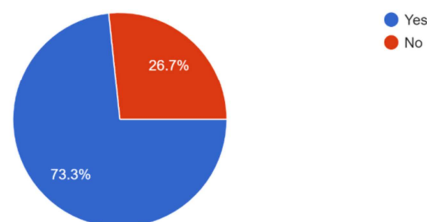
Figure 2. Analysis of students' responses to question 2.

Figure 2 indicates the most common way used at home among participants for memorizing vocabulary. A high percentage of 60% of the students used writing new words on some pieces of paper to help them remember new words. On the other hand, there was a tie between items (2) and (3). The high percentage indicates that most participants prefer writing

to help them memorize new words over reading or learn them by heart. This result hints to teachers the importance of connecting new words to other skills or techniques.

Figure 3 presents the analysis of question 3 of the questionnaire; Have you ever been taught vocabulary using the semantic feature technique?

3- Have you ever been taught vocabulary using the semantic feature technique?
15 responses



Have you ever been taught vocabulary using the semantic feature technique?

Figure 3. Analysis of students' responses to question 3.

The majority of the students of 73.3%, as figure 3 indicates, have chosen (yes), which shows that most of the students are familiar with this technique. However, according to the researcher's observation of the participants' behavior during the experiment, it was clear that the students were new to this technique, so there might be a misunderstanding on the

participant's part concerning the question's meaning.

In addition to the previous charts, Figure 4 presents the analysis of question 4 of the questionnaire; Which of the following do you recommend as an aid when using semantic feature technique to memorize vocabulary more effectively?

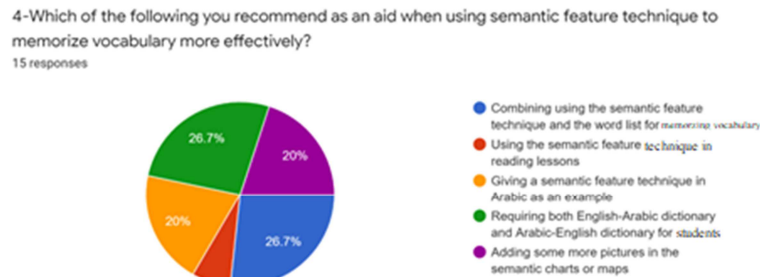


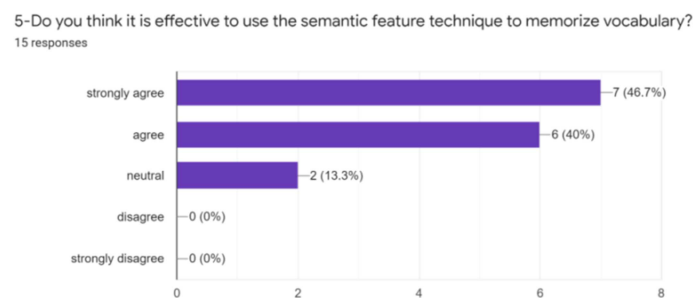
Figure 4. Analysis of students' responses to question 4.

Which of the following do you recommend as an aid when using semantic feature technique to memorize vocabulary more effectively?

Figure 4 indicates that participants had different preferences according to the aid they think is best to be used in a company with the semantic feature technique, making it more effective for teaching vocabulary. With the same percentage of 26.7%, participants have chosen (1) and (4), while others shared the same percentage of 20% by selecting (3) and (5). A minor

percentage of 6.6% of students opt for option (2) to use this technique in reading lessons. This low percentage indicates that only a few students like using this technique in reading classes.

Furthermore, the following Figure 5 presents the analysis of question 5 of the questionnaire; Do you think using the semantic feature technique to memorize vocabulary is effective?



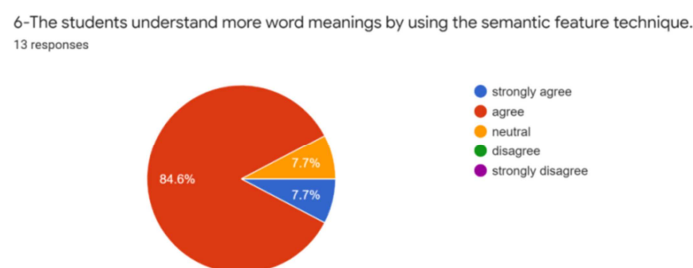
Do you think using the semantic feature technique to memorize vocabulary is effective?

Figure 5. Analysis of students' responses to question 5.

Figure 5 indicates that most of the participants of 46.7% strongly agree, and 40% agree that the semantic feature technique is effective in memorizing vocabulary. Only 13.3% have been neutral, and no one disagrees with this question. No

one disagrees or strongly disagrees with this question.

The sixth figure presents the analysis of item 6 of the questionnaire; The students understand more word meanings using the semantic feature technique.



The students understand more word meanings using the semantic feature technique

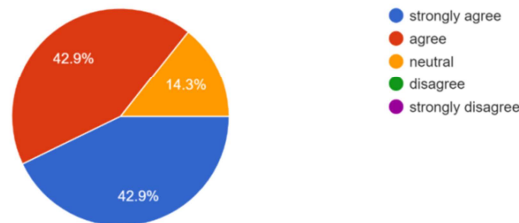
Figure 6. Analysis of students' responses to item 6.

Figure 6 indicates that most students of 84% agree that this technique helped them understand more word meanings. Some remain neutral with the same low percentage of 7.7%, and others strongly agree with this item. No one disagrees or strongly disagrees with this item. This result proves that this

technique is effective in learning new word meanings. On the other hand, no one disagrees or strongly disagrees with this item.

The following figure 7 analyzes item 7 of the questionnaire; The features help the students remember the related things.

7-The features help the students remember the related things
14 responses



The features help the students remember the related things

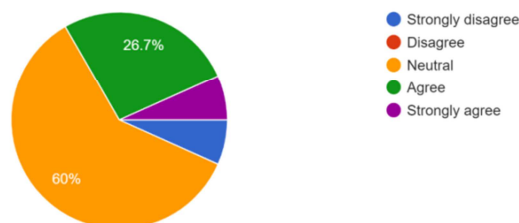
Figure 7. Analysis of students' responses to item 7.

Figure 7 indicates that most of the students strongly agree or agree with this item, with a shared percentage of 42.9%. 14.3% remain neutral. No one disagrees or strongly disagrees with this item. This result ensures one of the merits of this technique is that the features of the words presented help remember the words, especially when making connections

between them by features; thus, the learner remembers better when trying to relate things together.

The coming figure 8 shows the analysis of item 8 of the questionnaire; The semantic feature technique helps the learners retain the words better.

8-The semantic feature technique help the learners retain the words better.
15 responses



The semantic feature technique helps the learners retain the words better

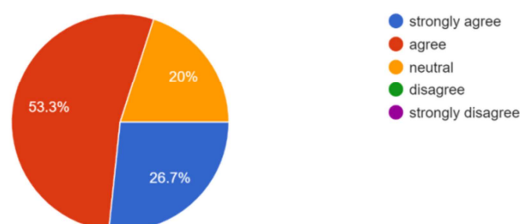
Figure 8. Analysis of students' responses to item 8.

Figure 8 indicates that most of the students remain neutral to this item. However, 26.7% agree with this item. The researcher thinks that those who chose neutral might not fully understand the question, and those who manage to do so agree, which also proves another advantage of this technique. With the same shared

percentage of 6.6%, some participants strongly agree while others strongly disagree. 0% of students disagree with this item.

The following figure 9 states the analysis of item 9 of the questionnaire; the Semantic feature helps learners easily acquire a large vocabulary size.

9-Semantic feature helps the learners to easily acquire a large vocabulary size.
15 responses



The Semantic feature helps learners easily acquire a large vocabulary size

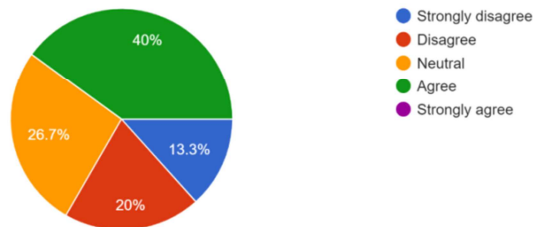
Figure 9. Analysis of students' responses to item 9.

Figure 9 indicates that most of the students agree with 53.3% or strongly agree with 26.7%. This result proves that this technique is also effective in acquiring a large number of words. However, only 20% have chosen to remain neutral to

this item. No one disagrees or strongly disagrees.

The upcoming Figure 10 shows the analysis of item 10 of the questionnaire; The semantic feature improves the students' logic.

10-Semantic feature improves the students' logic
15 responses



The semantic feature improves the students' logic.

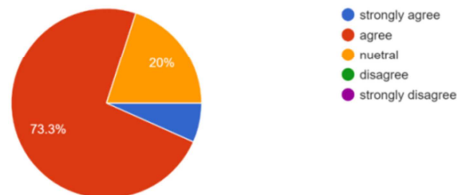
Figure 10. Analysis of students' responses to item10.

Figure 10 indicates that most of the students, of 40%, agree with this item, which proves that this technique helped them develop logical thinking. 26% remain neutral. However, 20% disagree with this item, which may prove that some students believe it did not develop logical thinking. While no one

strongly disagrees with this item.

The following figure 11 presents the analysis of item 11 of the questionnaire; The students understand more word meanings using the semantic feature technique.

11-Semantic feature lead students to relate new words to their own experiences and prior knowledge
15 responses



The students understand more word meanings using the semantic feature technique.

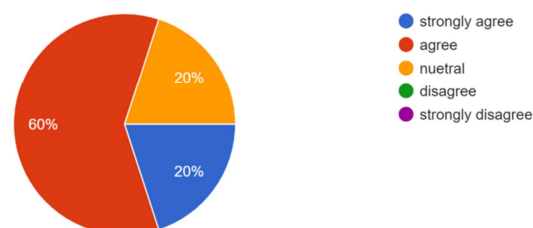
Figure 11. Analysis of students' responses to item 11.

Figure 11 indicates that most of the students, of 73.3%, agree, and also 6.7% of them strongly agree with this item which proves another positive quality of the semantic feature technique. Most of them believe that using this technique in learning new words led them to relate those words to their own

experiences and prior knowledge. However, 20% are neutral, and no one disagrees or strongly disagrees with this item.

Figure 12 presents the analysis of item 12 of the questionnaire; the semantic feature helps the students recall the words more easily.

12-Semantic feature helps the students recall the words more easily
15 responses



The semantic feature helps the students recall the words more easily

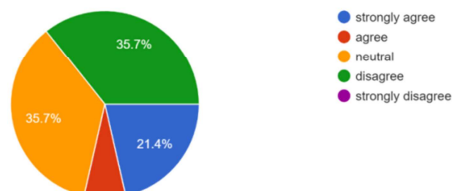
Figure 12. Analysis of students' responses to question 12.

Figure 12 indicates that most of the participants of 60%, agree with this item, and 20% strongly agree with it. 20% are neutral, and no one disagrees. This result suggests that this technique helped the students recall the words more quickly,

another valuable quality of the semantic feature technique.

Figure 13 indicates the analysis of item 13 of the questionnaire; students have no problems learning vocabulary using the semantic feature technique.

13-There are no problems facing students when learning vocabulary using the semantic feature technique
14 responses



Students have no problems learning vocabulary using the semantic feature technique

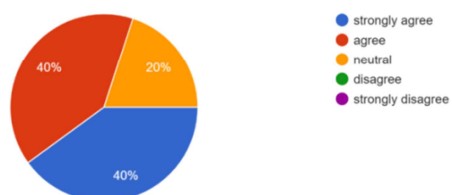
Figure 13. Analysis of students' responses to item 13.

The researcher will encounter some of the problems and challenges the participants face with this technique during the experiment, which will come later in the discussion section of the observation tool. However, students with a percentage of 21.4% strongly disagree that they claim to not facing any

problems during the process. Figure 13 indicates that 35.7% disagree with this item. Others of 35.7% have chosen neutral.

The following figure 14 indicates the analysis of item 14 of the questionnaire; the Semantic feature helps the students integrate and improve other skills such as reading and writing.

14-Semantic feature helps the students to integrate and improve other skills such as reading and writing.
15 responses



The Semantic feature helps the students integrate and improve other skills such as reading and writing

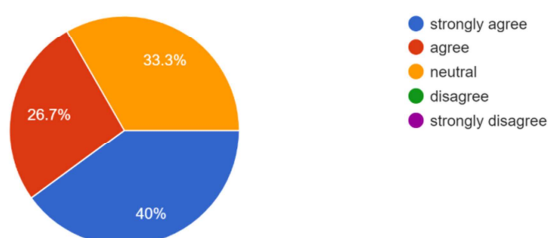
Figure 14. Analysis of students' responses to item 14.

Figure 14 indicates that most participants shared the same percentage of 40% of either agreeing or strongly agreeing with this item. When referring to question 4 of the questionnaire, the researcher noted that students did not recommend using this technique to aid in reading lessons, however in this item, they think it improves other skills such as reading and writing. However, it might seem as if there is a contradiction in their

opinions, but when looking closely, it is not. They may not like it in a reading lesson, but they think it helps them develop the skill. Others of 20% remain neutral, and no one disagrees.

The coming final figure 15 indicates the analysis of item 15 of the questionnaire; Students are more motivated to learn by using semantic feature technique.

15-Students are more motivated to learn by using semantic feature technique.
15 responses



Students are more motivated to learn by using semantic feature technique

Figure 15. Analysis of students' responses to item 15.

Figure 15 indicates that most of the participants of 40% strongly agree and 26.7% agree with this item. However, 33.3% remain neutral, and no one disagrees. This result proves that the students enjoyed learning new words and became motivated to learn more which is a significant feature that characterizes this technique.

Results Related to Research Question 2: How do they respond to this technique, and what are the challenges and difficulties they encounter?

The researcher used observation to answer this question. When observing the participants during the experiment, the researcher noted the following things.

First, participants were excited during presenting words using the semantic feature technique in the virtual classroom. Also, they responded very well- quickly and enthusiastically. Results of the exercises given after presenting each group of words to evaluate their understanding showed high scores. Four activities were presented for four weeks. The first one included seven words. The second had five words. The third included 21 words. The fourth included 44 words. The researcher gave one mark for each word. 14 students volunteered to participate in the experiment. So, the perfect total score of the whole students should be 1032 marks. They scored 976 marks out of 1032. During the experiment, students expressed fun and enjoyment. Since the experiment was done in a virtual online classroom, the What's up app was used to exchange answers for the post-evaluation instead of the electronic email to avoid any technical problem. It is easier, quicker, and requires less time and effort.

Secondly, the researcher has observed some problems that faced some of the students during the experiment. The researcher used a pilot study for the first two weeks to ensure that the students grasped the meaning of the semantic feature technique and knew what was required from them during the following weeks. She specified the first 15 minutes/30 minutes of the lecture for one day a week to present the new words. In those two weeks, she noticed that few students were shy to leave some words unanswered, so it was clear for the researcher that they cheated using a dictionary or using their mobiles to take a photo of the answers from the screen while presenting the new words. For the next four following weeks in which the experiment occurred, the researcher insisted that students should not cheat and not feel shy, leaving words unanswered. Another problem that encountered students is that some students forgot the words since they needed to join another class which created a gap between the researcher and the participant. Although the researcher sent the exercises to be filled as quickly as she could, some managed to submit quickly while others could not, and they sent it late, which caused the missing of words.

Third, the researcher noticed that sometimes in introducing some of the new words, the semantic feature way cannot stand alone to deliver the meaning of certain words. For example, the researcher recommends other ways to work together with the semantic feature as a teaching aid, such as putting words in context or examples or giving a synonymy to that word. Also,

the researcher noticed that the short time of the experiment, which was one month, may not be enough to give conclusive results.

Finally, the researcher could tell, especially from the last two exercises, that the students were weak in English. Because when they were asked to supply as many words as they could remember without any help, they answered poorly with few words and wrote wrong spelling and meaning, so these last two exercises ranked less than the others in their scores.

4.2. Discussion

Based on the findings in Figures 4-15, it can be inferred that intensive course students at Onaizah College of Sciences and Arts have positive attitudes towards using the semantic feature technique in learning new words that answer the research's first question. Their positive preferences after applying this technique in the virtual classroom suggest that it is an effective teaching tool that can facilitate learning and, therefore, helps increase student involvement. In the questionnaire, when the students were asked if they think that the semantic feature technique is effective in memorizing words, they agreed. This result corresponds with other similar research findings which proved the effectiveness of such a method. Research such as [34, 37, 55, 17, 44, 13, 35].

Their evaluation of the semantic feature as a technique for teaching words implies students' readiness for such a technique.

In analyzing the observation results, the researcher points out that the high percentage of student responses in the questionnaire in favor of the effectiveness and the usefulness of semantic feature technique in learning vocabulary correlates with their high achievement in the evaluation exercises provided after presenting the new words using semantic feature technique. This result means that the responses received from the questionnaire support the results of the observation. Both research tools—the questionnaire and the observation—confirm that the semantic feature technique is a valuable and fun technique for EFL learners, especially in learning new words.

Furthermore, observation findings helped identify some of the difficulties and challenges EFL learners face when using semantic features for learning new words in an online learning environment, which answered question two of the research. The researcher tried narrowing those problems into; 1) the time gap between participant and researcher, 2) students' cheats; 3) weak level in English. 4) students' shyness to ask or participate. The researcher suggests avoiding such problems by increasing the time allowed for each exercise so that the students can deliver activities within the lecture. The instructor should provide more supervision and guidance. To use this technique with more advanced students. To apply another teaching aid along with the semantic feature technique.

5. Conclusion

This research is one of the first studies to have suggested applying semantic feature technique as a strategy for teaching

vocabulary for EFL students. The research questions were: 1- What are intensive course students' attitudes at Onaizah College of Arts and Sciences towards using semantic feature technique in learning vocabulary? 2- How do they respond to this technique, and what are the challenges and difficulties they encounter?

Fifteen (15) students voluntarily participate in this study. Students' participation in semantic feature activities was observed for six weeks. Data for this study were obtained through observation and a questionnaire answered by the participants. Analysis of the results of the research tools following the research questions is summarized as follows; 1) students had positive attitudes towards semantic feature activities, b) students faced some challenges when applying this technique such as; a) the time gap between participant and researcher, b) students' cheats; c) weak level in English. d) students' shyness to ask or participate, 3) students were excited while using semantic feature activities and responded enthusiastically.

6. Recommendations

1. The researcher recommends further research on the

effectiveness of using the semantic feature technique in teaching vocabulary for students who suffer from language disorders such as Aphasia.

2. The researcher suggests increasing the time of the experiment by more than one month to get more precise results.
3. The researcher recommends doing the same research but with different research tools such as a pretest and posttest to measure students' proficiency level in English vocabulary before and after applying the method.
4. The researcher suggests doing the same research but on a large number of students.
5. To get more conclusive results, the researcher recommends researching two groups of the same gender and level; one is the control group, and the other is the experimental group.
6. To compare their response to this technique, t
7. The researcher suggests doing the same research but on two genders, male and female.
8. The researcher recommends researching the effectiveness of this technique on the retention or memorization of words or supporting other skills such as reading.

Appendix

The lecturer presented new words during lectures, two exercises within one week in the same following order. Students were asked to fill those tables and diagrams after class with their meanings.

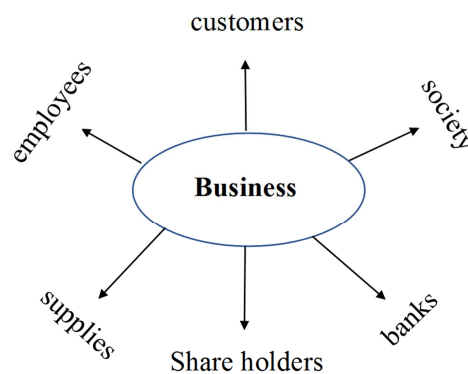
1- Bears Sheet

Table 2. Presenting bears' names according to their food features.

| Their food | | | | | |
|----------------|--------|------|---------|-------|---------|
| Types of bears | plants | fish | animals | honey | insects |
| Grizzly bear | | | | | |
| Polar bear | | | | | |
| Sun bear | | | | | |
| Sloth bear | | | | | |
| Giant panda | | | | | |

Pinterest.com

2-Business Sheet



www.cognitum.eu

Figure 16. Presenting words related to the business feature.

3- Games Sheet

Table 3. Presenting games' names according to their features.

| | individual | team | indoors | outdoor | Board game | Card game | Kids game |
|-------------|------------|------|---------|---------|------------|-----------|-----------|
| Games | | | | | | | |
| Football | | | | | | | |
| Baseball | | | | | | | |
| Marbles | | | | | | | |
| Tag | | | | | | | |
| Hide & Seek | | | | | | | |
| Scrabble | | | | | | | |
| Candy land | | | | | | | |
| Video games | | | | | | | |
| Hopscotch | | | | | | | |
| Checkers | | | | | | | |
| Golf | | | | | | | |

Sniderreadingincontentarea.weebly.com

4- Transportation Sheet 1

| | What does they need to work? | | | | | |
|----------------|------------------------------|----------|---------|------------|-------------|-------|
| Transportation | 2 Wheels | 4 Wheels | 1 wheel | Foot power | Motor power | Water |
| Bicycle | | | | | | |
| Car | | | | | | |
| Unicycle | | | | | | |
| Airplane | | | | | | |
| Boat | | | | | | |

Sideplayer.com

Figure 17. Presenting transportation names according to the method of working feature.

5- Animals Sheet:

Table 4. Presenting animals' names according to their features.

| animals | Features | | | | |
|---------|----------|---------|--------------|--------------|-------------------|
| | Can fly | Has fur | Has feathers | Can be a pet | Runs on four legs |
| dog | | | | | |
| Cat | | | | | |
| hamster | | | | | |
| buffalo | | | | | |
| tiger | | | | | |
| sparrow | | | | | |
| horse | | | | | |

Education.ufl.edu.

6- Insects Sheet:

Table 5. Presenting insects' names according to their features.

| insects | Features | | | | | |
|------------|----------|------------------|-----------|-----------|-------|--------|
| | Six legs | Three-body parts | Has wings | Lays eggs | bites | stings |
| bees | | | | | | |
| ants | | | | | | |
| mosquitoes | | | | | | |
| wasps | | | | | | |
| crickets | | | | | | |

Sniderreadingincontentarea.weebly.com

7- Transportation Sheet 2:

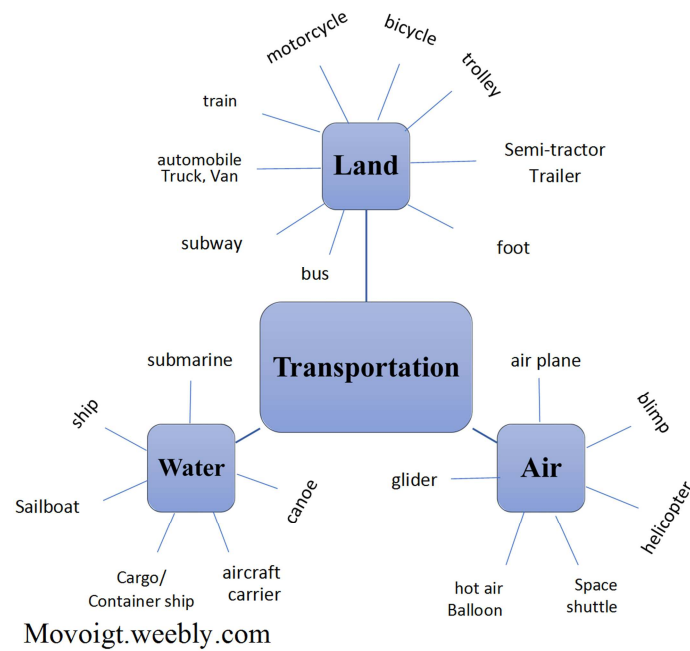


Figure 18. Presenting transportation words according to their features.

8- Water Sheet:

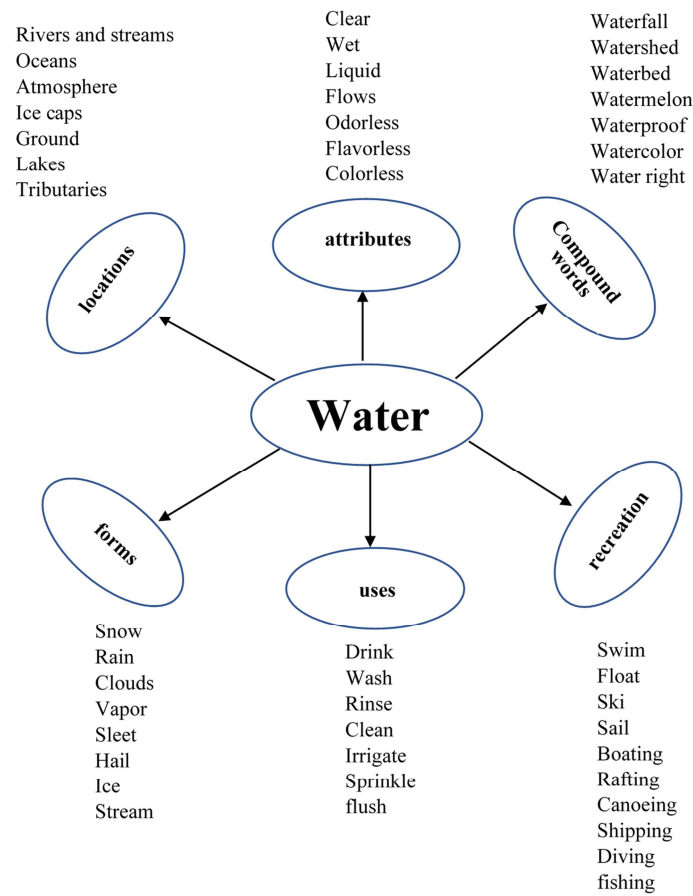


Figure 19. Presenting water words according to their features.

References

- [1] Afriani, K. (2016). TEACHING READING COMPREHENSION ON NARRATIVE TEXT THROUGH STORY MAPPING (A Pre-Experimental Study to the Tenth Grade Students of SMAN 1 Sungai Betung in the Academic Year of 2015/2016).
- [2] Afzal, N. (2019). A Study on Vocabulary-Learning Problems Encountered by B. A. English Majors at the University Level of Education. *Arab World English Journal*, 10 (3) 81-98. DOI: <https://dx.doi.org/10.24093/awej/vol10no3.6>.
- [3] Allen, P. & Harley, B (ed.) (1992). Issues and Options in Language Teaching. Oxford: Oxford University Press.
- [4] Al-Otaibi, G. (2016). The Effect of Semantic Mapping on Students Vocabulary. *Arab World English Journal*, 7 (1), 279–294. DOI: 10.24093/awej/vol7no1.16.
- [5] Alqahtani, M. (2015). The Importance of Vocabulary in Language Learning and How to Be Taught. *International Journal of Teaching and Education*, 3 (3), 21-34.
- [6] Alsaif, A. and Milton, J. (2012). 'Vocabulary input from school textbooks as a potential contributor to the small vocabulary uptake gained by English as a foreign language learner in Saudi Arabia. ', *the Language learning Journal*, 40: 1 21-33.
- [7] Altyari, A. W. (2017). English Vocabulary Uptake by Saudi Arabic-Speaking Students at Public Schools. *British Journal of English Linguistics*, 5 (1), 118–126. Retrieved from <http://www.eajournals.org/>.
- [8] Altyari, A. W. (2017). English Vocabulary Uptake by Saudi Arabic-Speaking Students at Public Schools. *British Journal of English Linguistics*, 5 (1), 10–16. Retrieved from <http://www.eajournals.org/>.
- [9] Amer, A. (2002). Advanced Vocabulary Instruction in EFL. *The Internet TESL Journal*, 8 (11). Retrieved from iteslj.org.
- [10] Amer, aly. (2019). Teaching/Developing Vocabulary Using Semantic Feature Analysis Framing the Issue, *ResearchGate*, 1–7.
- [11] Asadollahfam, H. and Shiri, P. (2013). The impact of semantic mapping instruction on Iranian EFL learners' reading comprehension of expository texts. *International Journal of Foreign Language Teaching and Research*, 1 (1): 95–106. Google Scholar.
- [12] Ashliegh, F. (2014, December 1). Vocabulary Acquisition & Semantic Feature Analysis. Retrieved April 4, 2020, from <https://www.entwellbeing.com.au/vocabulary-acquisition-semantic-feature-analysis/>.
- [13] Avrianti, N. (2015). Improving students' reading comprehension by using semantic mapping in pre-reading: A classroom action research to the tenth-grade students of a senior high school in Mempawah. WKS: Studies on English Language and Education.
- [14] Creswell, J. W. (2012). Educational research: planning, conducting and evaluating qualitative research, Fourth edition. Boston, Pearson education Inc.
- [15] Development of English language vocabulary learning for Saudi secondary schools' students", *International Journal of Humanities Social Sciences and Education (IJHSSE)*, vol 4, no. 11, 2017, pp. 183-196.
- [16] Diamond, Linda & Gulthon. (2006). Teaching Vocabulary. Online (on HTTP: www.readingrockets.org/article/9943) Retrieved on May 22, 2011.
- [17] Dilek, Y., & Yuruk, N. (2012). Using Semantic Mapping Technique in Vocabulary Teaching at Pre-Intermediate Level. *Procedia - Social and Behavioral Sciences*, 70, 1531–1544. <https://doi.org/10.1016/j.sbspro.2013.01.221>.
- [18] Efstratiadou, Antonia, Papathanasiou, Ilias, Holland, Rachel, Archonti, Anastasia, Hilari & Katerina. (2018). A Systematic Review of Semantic Feature Analysis Therapy Studies for Aphasia, *Journal of Speech, Language, and Hearing Research*, vol. 61 (5), pp: 1261-1278.
- [19] Efstratiadou, Papathanasio, Holland, Varlokosta & Hilari. (2019). Efficacy of elaborated semantic features analysis in Aphasia: a quasi-randomized controlled trial, *Aphasiology*, 33: 12, 1482-1503, DOI: 10.1080/02687038.2019.1571558
- [20] Erni. (2008). The Effectiveness of Using Semantic Feature Analysis in Teaching English Vocabulary for elementary school. A thesis of Muhammadiyah, University of Makassar.
- [21] Erten, I. H., & Tekin, M. (2008). Effects on vocabulary acquisition of presenting new words in semantic sets versus semantically unrelated sets. *The system*, 36, 407-422.
- [22] Evans, W. S., Cavanaugh, R., Gravier, M. L., Autenreith, A. M., Doyle, P. J., Hula, W. D., & Dickey, M. W. (2021). Effects of Semantic Feature Type, Diversity, and Quantity on Semantic Feature Analysis Treatment Outcomes in Aphasia. *American journal of speech-language pathology*, 30 (1S), 344–358. https://doi.org/10.1044/2020_AJSLP-19-00112.
- [23] Fattah, A. (2014, December 01). Vocabulary Acquisition & Semantic Feature Analysis. Retrieved May 08, 2020, from <https://www.entwellbeing.com.au/vocabulary-acquisition-semantic-feature-analysis/>.
- [24] Ibrahim, A, A. (2017)." Impact of utilizing semantic maps strategy on the development of English language vocabulary learning for Saudi secondary schools' students, *International Journal of Humanities Social Sciences and Education* 2017, 4 (11): 183-196.
- [25] Johnson, D. D., S. Toms-Bronowski, and S. D. Pittelman. (1982). An Investigation of the Effectiveness of Semantic Mapping and Semantic Feature Analysis with Intermediate Grade Children. Program Report 83-3. Madison: Wisconsin Center for Educational Research, University of Wisconsin.
- [26] Kristýna, K & Kristýnam V. (2017). A database of semantic features for chosen concepts (Attested in 8- to 10-year-old Czech pupils). *Topics in Linguistics*. 18. 10.1515/topling-2017-0006.
- [27] Lam, W. (2009). Treatment efficacy of semantic feature analysis (S.F.A.) on verb retrieval of a Cantonese anomic speaker, (doctoral dissertation), University of Hong Kong.
- [28] Lamb, M. K. (2012). "Semantic feature distinctiveness and frequency," Graduate Theses and Dissertations. Retrieved from <http://scholarcommons.usf.edu/etd/4354>.

- [29] Murray, L. L. (Commentary author) (2020). A meta-analysis of semantic feature analysis for Aphasia: Results indicate it works and yields information about some treatment- and person-related variables, *Evidence-Based Communication Assessment and Intervention*, 14: 4, 223-227.
- [30] Middle School Strategies. (n.d.). Retrieved on September 19, 2020, from <https://meaningfulwords.weebly.com/middle-school-strategies.html>.
- [31] Nation, I. S. P. (1990). Teaching and learning vocabulary. New York: Heinle and Hienle.
- [32] Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge: Cambridge University Press.
- [33] Nation, P., & Newton, J. (1997). 'Teaching vocabulary'. in Coady, J. & Huckin, T. (ed.) Second language vocabulary acquisition, Cambridge: Cambridge University Press., 238-254.
- [34] Natsir, R. Y. (2016). Developing Students' Vocabulary Through Semantic Feature Analysis at the Second Grade Students at SMPN 2 Sungguminasa Gowa.
- [35] Nilfroushan, Somayeh. (2012). The Effect of Teaching Vocabulary through Semantic Mapping on EFL Learners' Awareness of the Affective Dimensions of Deep Vocabulary Knowledge. *English Language Teaching*.
- [36] Pan, Q., & Xu, R. (2011). Vocabulary teaching in English language teaching. *Theory & Practice in Language Studies*, 1 (11), 1586-1589.
- [37] Pan, Y. (2017). Teaching Vocabulary to Improve Reading Comprehension. *Studies in Literature and Language*. 15 (4). Retrieved from www.cscanada.net.
- [38] R., M., Yusri, Y., & Jufri, J. (2020). Semantic Feature Analysis Model: Linguistics Approach in Foreign Language Learning Material Development. *International Journal of Instruction*, 13 (1), 185-196. DOI: 10.29333/iji.2020.13112a.
- [39] Rababah, G. (2005). Communication Problems Facing Arab Learners of English. *Journal of Language and Learning*, 3, 180-197.
- [40] Rahayu, R. (2005). English song as teaching media for students of the first year of SAP Frater Palopo. A Thesis of State University of Makassar.
- [41] Rebstock, A. (2014). Effects of Semantic Feature Analysis+ Multimodal Communication Program for Word Retrieval and Switching Behavior in Primary Progressive Aphasia (Master's thesis, Duquesne University). Retrieved from <https://dsc.duq.edu/etd/1089>.
- [42] Reza, N. A. ve Azizah, N. A. (2019). Semantic mapping strategy on students' vocabulary learning result. *Lingua Journal Pendidikan Bahasa*, 15 (2), 27-34.
- [43] Richards, J. C., & Renandya, W. A. (Eds.). (2002). Methodology in Language Teaching: An Anthology of Current Practice. New York, NY: Cambridge University Press.
- [44] Rohmatillah, R. (2017). A Study on Students' Difficulties in Learning Vocabulary. *English Education: Journal Tadris Bahasa Inggris*, 6 (1), 75-93.
- [45] Sadeghi, K. and Taghavi, E. (2014). The relationship between semantic mapping instruction, reading comprehension, and recall of Iranian undergraduates reading English texts. *MEXTESOL Journal*, 38 (1): 1-13.
- [46] Saragih, E. (2019). The effect of semantic mapping technique on technical vocabulary mastery for midwifery students. *Studies in English Language and Education*, 6 (2), 333-342. doi: 10.24815/siele.v6i2.14786.
- [47] Schmitt, N. (2000). Vocabulary in language teaching. Cambridge: Cambridge University Press.
- [48] Shameem, Tanvir. (2013, November 19). The semantic feature analysis. Retrieved May 9, 2020, from <https://tanvirhaka.blogspot.com/2013/11/semantic-feature-analysis.html>.
- [49] Tabaeifard, S. (2014). A closer look at the reasons behind code-switching used by an Iranian EFL Teacher Action research: A case study. *Global Journal of Science, Engineering, and Technology*. Issue (15), pp. 9-12 doi: 10.34005/lingua.v15i2.357.
- [50] Taylor, Cathleen & Nickels, Lyndsey & Croot, Karen. (2021). Exploring the effects of verb and noun treatment on verb phrase production in primary progressive Aphasia: A series of single-case experimental design studies. *Neuropsychological rehabilitation*. 1-43. 10.1080/09602011.2021.1879174.
- [51] Taylor, D. B. (2009). READ 6255 Presentation at Jesse Caron High School, Spring 2009.
- [52] Thaledon, S. (2020). The Use of Semantic Mapping to Improve Vocabulary Comprehension, H. R. D. Journal, 11 (1). Retrieved from <http://ojslib3.buu.in.th/index.php/hrd/article/view/6833>.
- [53] Thuy, N. N. (2013). The Effects of Semantic Mapping on Vocabulary Memorizing. Retrieved on March 2021 from <https://www.semanticscholar.org/>.
- [54] Yang, W. D., & Dai, W. P. (2012). Vocabulary Memorizing Strategies By Chinese University Students. *International Education Studies*, 5 (1), 208-214.
- [55] Zahedi, Y. and Abdi, M. (2012) The effect of Semantic Mapping Strategy on EFL Learners' Vocabulary Learning. *Procedia*. 69 (2012), 2273-2280.
- [56] Zimmerman, C. B. (1997). 'Historical trends in second language vocabulary acquisition'. In Coady, J. & Huckin, T. (ed.) second language vocabulary acquisition. Cambridge: Cambridge University Press., 5-18.