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## **Semantics Application Networking for EFL Learners' Communicative Language Learning**

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### **Abstract**

The study employs an experimental design as its chosen methodology. This study examines and juxtaposes the speaking tasks that are often given to students in the classroom and investigates the perspectives of both teachers and students regarding the overall value of the program. The study's population consisted of students who were enrolled in the first semester of the academic year 2021–2022. The current researcher employed the purposive sampling approach. The researcher utilised two courses, including a collective total of 80 students, as the sample population for this study. The results of this project are expected to yield significant data and contribute significantly to linguistic research, namely in the area of language training. The primary aim of this study was to enhance students' proficiency in spoken English through the application of semantic networking techniques. The study's findings emphasise the importance of communicative language, language learning methodologies, and semantic networking tactics in promoting students' growth in many areas.

Keywords: Communicative Language, Semantic Networking, and Language Learning Techniques

### **Introduction**

Vocabulary, an essential component of language, must be well understood in order to use the four language abilities effectively. All of a language's words are referred to as its vocabulary. The phrases "what to read," "what to speak," "what to listen to," and "what to write" have a certain order. Therefore, vocabulary skills should always be developed. In a similar spirit, Guasti (2017) stated that to comprehend a foreign language, one only has to acquire two elements: vocabulary and the skill to effectively combine words. You cannot learn a language without memorizing many of its vocabulary. There are three speaking classes that are intended to teach and practice language, according to Harmer (1993: 162-164). One of them is the exploration strategy, which encourages learners to add any words

they are already familiar with to the vocabulary list. It is advised that students complete this homework in pairs or small groups. Typically, a word that is unfamiliar to one student is known to another.

Nunan (1991, 130) proposes a strategy in this case that combines Harmer's prior strategy. This method, known as a semantic network, comprises of words that share specific semantic properties or characteristics. The purpose of language education is to enhance an individual's ability to communicate effectively in both spoken and written form in the desired language (Kohn & Hoffstaedter, 2017). However, encouraging children to speak English in class is not something that teachers can do with ease. The teachers must exercise patience as they nudge the kids to practice their speaking abilities. Speaking in front of others demands guts and good discretion. Speaking is a valuable ability. According to Heaton (1980), proficiency in English is the capacity for effective idea transmission. Or, to put it another way, English proficiency is the capacity to interact appropriately and successfully in a conversation. Many research have shown how to gauge a population's aptitude for and interest in English.

Suyuti et al. (1985), employees typically don't actively use English in discussion. It implies that there is little motivation for the employees to communicate. This situation unquestionably demonstrates how limited the employees' linguistic abilities are. According to (Sreena, & Ilankumaran (2018), oral communication is a bilateral exchange between the speaker and listener(s), involving the use of both speaking and listening abilities.

Speaking is the act of having a conversation with someone, discussing something with them, and declaring one's intentions or reasons for having an opinion. We can assume that when two people are interacting with one another, they are engaging in communicative action, says Harmer (1993), who is talking about the nature of speaking. According to Widdowson in Buhari (2004), a speaking act frequently occurs during face-to-face interactions and occurs as a part of discourse or rather as a type of verbal exchange. Because of this, communication has an impact on comprehension. He continues by saying that body language, including

gestures and facial expressions, can all help people comprehend. These developments in non-vocal speaking are all presented visually. When two individuals are conversing, we may be sure that they are typically indicating that the speaker has made a deliberate decision to address someone. We can still say that he wants to speak or has a tendency to speak even though it may be forced upon him or her in some ways; otherwise, he would remain silent. He's trying to say something, and speakers often use their words to influence how things turn out. He picks a language from the list. When a teacher is a native speaker, the number of new sentences he may construct is practically limitless.

Elements such as concepts, associations, relations, attributes, images, sensory perceptions, emotions, a sense of time, and context-awareness contribute to the formation of mental schema, which represents personal or episodic knowledge. These components are connected by a sophisticated web of verbal and nonverbal cues (Eaves & Leathers, 2017).

Semantic network theory offers a dependable and structured approach to describe and convey an individual's mental representation of factual information (declarative knowledge) (Maksimov & Golitsyna, 2022). When knowledge is elicited by knowledge probes, semantic networks and related theories, such as conceptual graphing, can predict problem-solving ability with up to 90% accuracy (Gordon & Gill, 1989). These theories are in line with the last 50 to 100 years' worth of study on human memory. One can share their knowledge with others by using a computer-based semantic networking tool to explain it to them. Any thought unit or idea that enters our minds can be categorized as a concept, the fundamental component of a networking system.

Concepts can be shared in the form of a straightforward representation based on the knowledge of a single expert or a more complex representation based on interactive expert collaboration, the fusion of independently created knowledge repositories from various experts, or external knowledge sources such as books, websites, or databases. A name for a concept may or may not exist. For instance, it is

difficult to convey in a single word both the sensory sense of the aroma of freshly baked bread and the wonderful feelings that come with acceptance and appreciation. However, they are ideas that are formed via experience and remain in the mind. In a network, every concept is interconnected with many others. Nouns belong to a distinct category of conceptions. A noun is a word that is employed as the subject or object of a verb in a phrase. It can also be referred to as the name of an object, state, quality, person, or location, according to Webster's (1981). Nouns are frequently encountered in nodes inside a semantic network. Noun notions must be used in formal schooling.

Children often acquire knowledge of nouns prior to verbs in their speech (Gogate & Maganti, 2017). De Carvalho, et al (2019) argue that nouns are more accessible and easier for young children to comprehend. Nouns are distinct from and have a more fundamental ontological status than verbs, according to historical evidence that dates back to Aristotle.

Associations are a crucial component of semantic networks. In this context, the word "association" alludes to hidden links or relationships between ideas. In reality, links belong to a different class of thoughts (Sowa, 1983). When acquiring academic material, it is common for students to take in a group of concepts from lectures or book chapters before completely understanding the relationships among those ideas (Fisher, 1990). A crucial part of learning is creating associations—unnamed links—between brand-new ideas and well-established ones. The next crucial step to gaining valuable knowledge is to determine the unique characteristics of each relationship. An association can be changed into a name link (typically stated with a verb or verb phrase) once its meaning is obvious.

A verb frequently relates to an activity or a state of being and appears in the middle of a predicate or proposition, according to Webster's (1981). As was already mentioned, verbs are harder to understand than nouns. They are frequently vague and open to several interpretations. Verbs are frequently taught later than nouns and, on average, have more

meaning changes per verb than nouns, according to both linguists and psychologists.

Changes in the number and diversity of concepts included in a semantic network, the quantity and variety of links connecting concepts, the changing of modifiers, or the general structure of one's semantic network can all be used to identify changes in conceptual comprehension (e.g., Sutton, 1980). It is possible for knowledge of very simple concepts, such as kidney, nephron, or urea, to change through time. Higher level notions, such as human anatomy or the urinary system's organ system, are also prone to change. Larger portions of a semantic network are frequently needed in order to capture the conceptual changes brought on by higher-level ideas and knowledge reorganizations. One's worldview, conceptual ecology, and beliefs about the various knowledge categories and what makes appropriate and inappropriate connections between them may all change over time (Hewson & Hewson, 1991).

For mapping conceptual change, semantic networks and related pen-and-paper methods have been utilized successfully (e.g., Gordon & Gill, 1989; West, Fensham, & Garrard, 1985). Without judging the correctness of the results, free word association techniques can also be used to generally follow the development of a knowledge structure (e.g., Thro, 1978).

Given the rationale provided above, the researcher devised two research statements in the following manner:

1. How can EFL teachers use semantics application networking to improve students' communication skills?
2. What effects and benefits do semantics application networking have on EFL language learning?

### *Instruction*

Tallis (2019) contends that our perception of the environment initially emerges through our neuromuscular system before being broadened into more conceptual domains through the utilization of metaphors and analogies. A concept could get more ingrained or intertwined in our

knowledge network as we explore further into our kinesthetic origins, making it difficult to remove or change. This may be the cause of how conceptual transformation is aided by the linking of ideas and practical experiences (see, for instance, Clement, 1982; Brown & Clement, 1989).

In a person's personal knowledge network, creating new links from a known thought cluster outward is a good illustration of how Vygotsky's (1978) theory of the zone of proximal growth pertains to learning. The right relationships can be clarified through conversation (including self-talk and reciprocal education; Palincsar & Brown, 1984). One's worldview and epistemology, which play a part in how they interpret knowledge and understanding, have a big impact on how new connections are made. The establishment of novel connections between diverse domains of knowledge is often a fundamental aspect of creative cognition and the resolution of problems (Henriksen, et al, 2017). Links are frequently clearly revealed by new discoveries.

According to Norman and Bobrow (1979), memory recall frequently starts when something in our immediate environment matches a concept that is preserved in our memory. It's normal for spreading activation, or the process whereby numerous connected thoughts appear after one is remembered.

To comprehend the word "semantic network," it is first necessary to comprehend what "semantic" and "network" mean. The term "semantic" is related to language and networks, namely (a) complex networks of interconnecting lines and (b) interconnected systems, according to Hornby (1987:775).

The study of word and phrase meanings is semantic, according to Hornby (2000:162). (2) a term, phrase, or system's meaning. Additionally, the word network (1) implies to a complex web of ducts, nerves, and other systems. (3) A network of connected computers and other technology that lets us to share our knowledge and resources. (2) A collection of businesses, associations, etc. 2000, page 854, Hornby.

Additionally, it is claimed by Echols and Shadily (1996) that a word network is a netting and that word meaning and semantics are connected. According to Sowa's 2003 definition, a semantic network is a graphic notation that is utilized to express knowledge as a network of connected nodes and arcs.

Harmer (1993, p. 165), a semantic network is about generic and specialized concepts and sense interactions. Or, to put it another way, groups of words that are joined together. Similar to this, according to Nunan (1991:130), a semantic network is made up of words that share the same semantic properties or attributes. We get to the conclusion that a semantic network is a list of words grouped according to their meanings based on the experts' explanations. Semantic networks, also known as mind maps and vocabulary networks, are not a novel method of expanding one's vocabulary. (1993, Harmer, 165)

Semantic networks perform two functions. From a collection of circumstances that are described as an overlay of a semantic network, one (1) can choose the condition that is sufficiently closed to be input. (2) Is able to connect various input components. (Sowa. 2003). The materials must then be represented after that. The students are then told to complete as many words as they can that are pertinent to the theme, with the professors providing a key word or phrase as the topic (Harmer 1993, 167).

### **Research Methodology**

This study utilises an experimental research approach to examine the efficacy of semantic application networking in enhancing communicative language abilities and language learning techniques among English as a Foreign Language (EFL) learners. The study will encompass a cohort of 40 English as a Foreign Language (EFL) learners, who will be chosen at random from a group of volunteers or from a particular EFL class or program. The participants will be categorised into two groups: the experimental group and the control group, with each group including 20 students. The participants will be chosen by purposive sampling, guaranteeing that both

groups possess a comparable distribution of language competence levels, age, and gender. The experimental group will be provided with teaching that integrates semantic application networking as a fundamental element in their language learning activities. The control group will be provided with conventional EFL teaching, excluding the implementation of semantic application networking. The project will gather data using both quantitative and qualitative methodologies. All participants will undergo pre- and post-assessment exams to evaluate their proficiency in communication and their strategies for language acquisition. In addition, qualitative insights into the participants' experiences and perceptions will be collected through questionnaires and interviews. The experimental group will participate in organised activities and exercises that include semantic application networking in their language acquisition process. The control group will adhere to a conventional EFL program. The quantitative data will be evaluated using statistical methods, such as t-tests or ANOVA, to ascertain whether there are noteworthy disparities in communicative language skills and language acquisition approaches between the two groups. The theme analysis will be conducted on the qualitative data to reveal the insights derived from the participants' input.

## **Findings and Discussion**

### **Findings**

#### *Semantics Application Networking to Improve Students' Communication Skills*

According to the data analysis, it is discovered that:

1. The results of data analysis using tests show that the two student groups were nearly similar before the interventions, with scores in vocabulary of 4,2 and 4,1 respectively. However, after the interventions, group A scored 7,8 while group B scored 7,1 only. In general, both groups improved their speaking, albeit at a different rate. While group B (the controlled class) only made advancement of 3 points (73, 17%), group A (the experiment class) advanced as much



as 3.6 points (85, 71%). Clearly, the experiment group's progress is 0.6 points, or 12, 54%, more than the controlled class's progress.

## 2. The Findings from the Hypothesis Test

The value of the t test (the calculated "t") is 2,914, according to the entire results of the hypothesis testing provided above. While the t-table value is at significance level 0, 05. The value of the t-table with degree of freedom = is 2.021. This indicates that the alternative hypothesis is accepted while the null hypothesis is rejected.

## 3. Analysis of Data via Interview

The 10 components that made up the attitude scale speaking were divided into 5 different attitude scale categories. Strongly disagree, average, agree, disagree, and agree. Twenty people successfully respond to the speaker.

### *The Effects and Benefits of Semantics Application Networking on EFL Language Learning*

The result show that nine students (45%) of the 20 students who selected the variable strongly agreed. It is a good idea to look at the percentage of the students' responses, even though 11 students (or 55%) chose "agree" in this categorization, none of them chose the ultimate options of "average," "disagree," or "strongly disagree." It shows that the students have a favorable attitude towards this project.

According to the result, 12 students (or 60%) chose the response option "strongly agree," whereas only 8 students (or 40%) chose "agree" for this category. Because none of the students chose the option average, disagree, or strongly disagree, we may say that the rate percentage of responses is positive. It suggests that the students have a positive attitude towards this project. Out of 20 students, 10 (or 50%) chose strongly agree, compared to 8 (or 40%) who chose agree and 2 (10%) who chose average, as shown in the table above. Nobody who chose the variables did so in

agreement or severe disagreement. The rate percentage of the students' responses makes it evident that they have a positive attitude. By looking at the table above, we can see that 14 students (or 70%) chose strongly agree, as opposed to 6 respondents (or 30%), who chose agree. The variable average was not chosen by any responders, disagree. and strongly disagree. It shows that the students have a favorable attitude towards this project.

Only 5 students (or 25%) of the 20 students who replied to the item chose strongly agree, according to the data in the table above, while 15 students (or 75% of the students) selected agree. None of them select the final three alternatives of average, disagree, or strongly disagree. The rate percentage of the students' responses suggests that they have a favorable opinion of this item. In the table above, just one student (15%) chose variable average, while thirteen students (65%) chose disagree. Only six (30%) students chose "strongly disagree," with no other students choosing "strongly agree and agree." According to the table above, the students were confident that learning language through semantic networks was not challenging for them.

Only one student (5%) out of the 20 students chose variable average, while 17 students (85%) chose disagree and 2 students (10%) strongly disagreed, as seen in the above table. They don't strongly disagree and none of them do. The frequency of the students who selected highly agree, or 4 students (20%), may be inferred from the table above. The rate percentage of the students' responses shows that they have a good attitude and did not find learning vocabulary using a semantic network to be uninteresting. R indicates that the students' attitude towards this task is positive even if 16 students (80%) chose "agree," but none chose "average," "disagree," or "strongly disagree."

We were able to conclude that, of the 20 students, 12 (or 160%) chose highly agree, while 8 (or 40%) chose agree based on the data in the aforementioned table. The remaining three factors, average, disagree, or strongly disagree, were not chosen by any of the 20 students. The students

have a favorable attitude towards this item, as seen by the rate percentage of their responses.

Only one student (5%) out of twenty picked variable average, 14 (70%) disagree, and five (.25%) selected strongly disagree, according to the data above. None of them are vehemently opposed and disagree. The percentage of students that responded shows that they are not confused about acquiring vocabulary using a semantic network and that they have a good attitude.

## **Discussion**

Effective communication is a cornerstone of success in various fields. Proficiency in communicative language is not limited to linguistic competence but extends to the ability to convey ideas, negotiate, and collaborate across diverse contexts. Whether in the business world, academic research, or interpersonal relationships, the capacity to express thoughts and ideas clearly and persuasively is indispensable (Hua, 2018). Communicative language skills empower individuals to engage in meaningful dialogue, solve complex problems, and foster mutual understanding (Uysal, et al, 2022). In educational settings, emphasising communicative language instruction prepares students for real-world interactions and equips them with the tools needed to excel in diverse fields by honing their ability to express themselves fluently and engage with others effectively.

The methodologies used for language learning are crucial in determining students' capacity to acquire, retain, and use linguistic talents. Various methodologies for language acquisition, such as immersion, communicative language teaching, or task-based learning, have distinct advantages and benefits. They cater to a wide range of learning styles and also meet the varying needs of learners in different disciplines of study (Liu, 2020). The language learning methodologies have a significant effect on students' motivation, engagement, and ability to remember language knowledge, which in turn affects their academic and career achievements.

An appropriately selected strategy can boost learners' self-confidence and motivate them to strive for language proficiency as a lifelong ability, which is extremely valuable in today's interconnected and multilingual world.

Semantic networking techniques utilise the potential of linkages, connections, and contextual comprehension in the process of language acquisition. Through the process of connecting words, concepts, and ideas, learners are able to achieve a more profound understanding of language and enhance their ability to remember it. This method is especially advantageous for fostering critical thinking and innovative problem-solving abilities, as it stimulates learners to establish connections between language, real-life scenarios, and other academic disciplines (Hoyer & Van Gool, 2022). Semantic networking solutions not only enhance the process of language acquisition but also empower students to effectively utilise their knowledge in other academic fields. The capacity to employ semantic networks for accessing and employing language in many settings is a portable aptitude that surpasses mere language acquisition, rendering it a valuable resource for students pursuing careers in a wide range of sectors such as science, the humanities, or commerce.

## **Conclusions**

The researcher came to the following conclusion in light of the data analysis and discussion in the chapter before: It is successful when learners who are being taught using semantic networks advance. It is asserted that the vocally instructed students' advancement from a low level to a high one has improved. It progresses from a modest level to a rather high level of difficulty. The speaking abilities of students who are taught verbally versus those who are taught using a semantic network are very different. Compared to verbal explanation, semantic networks have a wider range of applications. The use of a semantic network in the speaking lessons is well received by the students.

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