

Intertwinement of mental lexicon and word production in teaching Turkish as a foreign language

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ABSTRACT

The aim of this study is to underline the contingent problems of learners of Turkish, which is an agglutinative language and to shed light on power of mental lexicon. In this descriptive study, vocabulary challenge is investigated as it is one of the main problems for learners studying Turkish as a foreign language (TFL). This study provides information about Turkish morphology and accentuates how mental lexicon contributes foreign learners to produce Turkish words regarding form, function, and practice. Findings recommends mental lexicon be calibrated in curricula since vocabulary production is an important factor for foreign learners who come from different language families and instructional background. This study is assumed to contribute TFL teachers to have a different point of view.

Keywords: Vocabulary, mental lexicon, Teaching Turkish as a foreign language.

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INTRODUCTION

Vocabulary and lexicon

Vocabulary is described as the sounds or the group of sounds, or words that have meaning in the Turkish Dictionary by the Association of Turkish Language (TDK, 2010: 1264). Some scientists draw attention towards vocabulary as the combination of united thoughts and sounds of any language which has entitled signs, concepts, sound aspects, and understanding and narrating other components in the language (Aksan, 1980; Barın, 2003; Benzer, 2020; Gökdayı, 2016; Kana and Keskin, 2014); and some regard it as the tool which acts as a sign and can only be used by humans and the lingual integrity that has meaning and is the head of the clause in the dictionary of that language and the sound or the group of sounds which has meaning and has an active role in the building a sentence (Alyılmaz and Şengül, 2017; Kantemir, 1997; Şengül, 2014; Tüm, 2016). Güneş (2016) points out that the definition of vocabulary towards the following three aspects:

- "A sound or a group of sounds which has meaning or function and can be used solely"
- "The smallest meaningful units in a sentence or the speech units which find meaning in a sentence although

they do not have any meaning alone (i.e. prepositions)"

- "The smallest meaningful units in the language which help people to understand each other as a result of putting the units together in a specific order".

These three aspects are phonetic cues (word), graphic cues (written structure), and meaningful input (cultural and situational aspect). Every word has phonetic and graphic structures, yet, not every word has meaning. Therefore, words are differentiated in two categories: *lexical* words and *functional* words. The former is considered a being, an object, or an action and it contains concrete facts. With these words, beings or actions come to life in our minds during reading or listening process. The latter are the words which do not have any concrete equivalent, and sometimes do not have any meaning such as "or, with, and, for, but, yet, until, since".

Harris and Spay (1990) address words in two dimensions called *expressive* and *perceived*. Therefore, when these two dimensions come together, using the language is engraved in mind. A person, who does reading and listening, engraves, categorizes, evaluates, understands the meaning of any word and prepares it for the communication in their minds; and with the help of

speaking and writing, they execute the action within a context by using the words productively. Therefore, the objects, signs, and concepts in mind are uttered through words. These words mean the appearance of the intellectual and symbolic beings as sounds in speaking and as letters in writing. In this context, this means that the more vocabulary a person has, the more effectively they can utter their feelings and thoughts. In other words, the effective usage of the fundamental language skills such as understanding and narrating are directly linked to the rich vocabulary storage. Any individual thinks with words and concepts, and expresses what they create in their minds with speech or speech patterns (Karatay, 2007: 144). Words also have important roles in the existence of language improvement, flourishing the thesaurus, and the completion of the mental development.

Thesaurus (vocabulary set) is the combination of words of a person, group or the whole language (Turkish Dictionary, TDK 2005; Korkmaz, 1992); it is also the word patterns which derive from the concepts belonging to foreign words, idioms, proverbs, and the words from science, arts and technical fields besides the fundamental or core words (Aksan, 1980). Shortly, the vocabulary set is the accumulation of words which a person has acquired or experienced and stored in their minds. In fact, not only it consists of merely words as separated units but also proverbs, idioms and phrases which can be seen in academic and social life. In that case, there are two groups called *active vocabulary set*, and *passive vocabulary set* (Karatay 2007: 145) or *receptive vocabulary set* and *productive vocabulary set* (Kurudayıoğlu, 2018). Active vocabulary set is the productive part which a person uses in everyday life and transmits their ideas according to their needs, the place and time. Passive vocabulary set is the part which is rarely used actively, yet it is stored more than the active part and be only used in understanding the language while using. Using the language skills in social, academic or other areas depends on how much a person develops their mental lexicon.

Mental lexicon

Mental lexicon, which is also known as internal or subjective dictionary, is all the information abundance that a person has in their own language. In every speaker's mind, there is a systematic dictionary related to the structure, sound and meaning of words (Treisman, 1964). In fact, mental lexicon, besides being the existence of vocabulary, is a complex system which includes all the morphemic, phonetic, lexical, and syntactic information and the combination of world information system which is stored through experience. In this system, all the information is stored in a person's mind like a dictionary. Learned vocabulary and

information about the vocabulary such as sound, spelling, and meaning are stored and the storing capacity is emphasized to be limitless (Buzan, 1991; Yalçın, 2002: cited in Kurudayıoğlu, 2018: 16). Because words are stored as abstractly and invisibly, having information on how many words or terms the mind of a person learns or stores seems impossible. Words are not stored randomly in this storage; they are in infinite quantity and can be found easily from the memory storage. In other words, human mind is both flexible and expandable while constructing specific information. Random concrete words and images can easily be remembered and reframed. Yet, verbal data in great amounts can be recalled from the memory if only it is organized well (Aitchison, 2003). It is pointed out that there are 25.000-35.000 words in mental lexicon of well-educated people (Güneş, 2016).

Exemplifying of words in the mental lexicon

A new word is associated with the existing words stored in a specific subject/theme. It is possible to remember the word families, to add various information on the targeted words, to find the synonyms/antonyms, and to remember the sub-groups (i.e., kalem 'pen'; kurşun kalem meaning pen(cil), activating several meanings such as pencil, exam pencil, colorful-pencil, fountain pen, ballpoint pen, board marker, eraser, pencil-case, sharpener, write, sign, underline, put a signature, eye-liner, metal, wood, three, branch of tree, ink, ink box, letter, writer, author, etc...). In this case, using the mental lexicon in morphemic, phonetic, lexical, and syntactic levels becomes easier. Therefore, a concept like pencil is likely to lead organization of information concretely and visually in the mind to make the words and their visualization of relationships of the others. Mind maps help to see the concept as a whole with the parts which make the concept, to keep the information related to the concept in mind longer, to comprehend it easily, to gather new information related to the concept, and to see the relations of these with the concept. Moreover, it helps students learn their prior knowledge related to the concept and to make a written text become clearer (Ministry of National Education, MEB, 2005) as indicated in Figure 1.

The types of mental lexicon

Two types of mental lexicon used to be referred: 'verbal' and 'visual mental dictionary'. Verbal mental lexicon is the one where the words are recorded through listening and is utilized while speaking; and the visual mental lexicon is the one where the words are recorded through reading and is utilized while writing. However, the recent studies have shown that individuals do not write like they

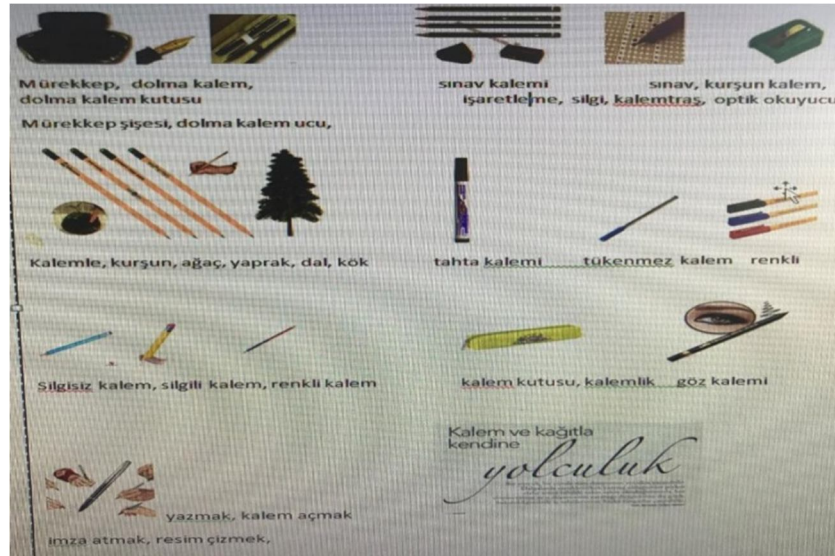


Figure 1. Mental lexicon for 'pencil' and its association.

read, but they write as they speak making the same mistakes they do while speaking in their writing and that the mental lexicon is actually sole. Therefore, it has recently been argued that there is only one mental lexicon and it should be developed spirally. In other words, mental lexicon is first constructed verbally and all the sounds, syllables, and words learned through listening are placed here. This information is used during reading and writing. With reading and writing, the images of letters, syllables, and words start to be transmitted to the mental lexicon; therefore, both verbal and written information appear in the mental lexicon. However, the mental and traditional dictionaries are based on different rules and principles in terms of their structures as indicated in Table 1 (Aitchison, 2003:10; Gui, 2000: 252).

Table 1 reveals that there are great differences observed between the dictionaries, so are slight similarities. In accessing these dictionaries, three significant theories stand out: Direct Access Theory for traditional one, and Pronunciation Mediation Theory and Binary Path Model Theory for mental lexicon. In the direct access theory, the meaning of a word is directly gathered from the presented data. Nevertheless, in pronunciation mediation theory, the morphemic structures require a process in which the structures transmit from the lexical forms to articulatory signs and to the last meaning of the words. Binary path model theory adopts an approach in which both the structural and lexical sides of the words are processed. Various relations and concept networks being in touch with each other steps get involved in organization of the dictionary. Traditional dictionary, as book like materials, contains all alphabetically ordered words in the language, and it is concrete; yet, the mental lexicon order is more flexible on an abstract level as of semantic and pronunciation order as well as mental

lexicon and dictionary order. Words related to each other in semantic, phonological, morphological, lexical order are stored in semantic network; words with similar sounds are stored in the phonetic network, words with morphological units are stored in lexicon, words with irregular forms of verbs or adjectives are stored respectively. There are also differences in accessing the dictionaries. In the mental lexicon, there is high speed and mapping of the words both to their meanings and functions. Therefore, by triggering meanings through signals via cognitive activation, fast learning or recalling occurs in the brain.

The association between the brain and the mental lexicon

Chomsky, the Pioneer of the generative linguistics, argued that the human language can only be produced with the cognitive processes in the human mind. In this approach, infinite number of sentences can be constructed by only using finite number of units and rules. Studies reveal that the language centers are gathered in 3 areas in the brain: Broca's Area, Wernicke's Area and Angular Gyrus Area. Broca's Area does its duty in forming the sounds and converting them into language; Wernicke's Area consists of coding and understanding of converting the form of what is heard into what is said, and Angular Gyrus helps to perform the complex lexical and other centers' functions. The network between the Broca's and Wernicke's areas provides uninterrupted communication in form of reciprocal hearing and speaking; and a person repeats the sounds correctly. In the network between Wernicke's and Angular Gyrus, meaning functions is created as a whole as both auditory

Table 1. Traditional and mental lexicon order.

Traditional dictionary	Mental lexicon
Direct Access Theory	Pronunciation Mediation Theory, Binary Path Model Theory.
Alphabetical Lexicon Order	Not instructed in alphabetical lexicon order. There is the mental and selective lexicon order.
Independent Word List	Word net categorized in a particular characteristics and relevancy
Limited number of words and their meanings	Much richer knowledge than a limited number of words and their meanings
Semantic and pronunciation included	Semantic and pronunciation order
Word net in a particular order	Semantic and sound web storages
Syllabification and/or (pronunciation) order	Not only in the pronunciation and syllabification order, but also in indexing form according to meaning.
Meaning in order	Mapping according to meaning and function
Receptive	Receptive and productive
Unchangeable and unimproveable	Open to change and improvement
A particular pace	Pace changes

and visually. And, the network between Angular Gyrus and Broca's is the occurrence of reading aloud. These three relationships have an important role in executing the comprehension and narration skills healthily and effectively (Tanrıdağ, 1993). In Figure 2, in which part of the brain speaking, listening, reading, lexicalizing, and conjugating takes place can be seen.

As seen in Figure 2, the linguistic processes occur in different areas in the brain when a person articulates the language. That is to say, while the mind contains conscious processes of human brain such as learning, thinking, perceiving, and comprehension, the functions of the words including the language skills are stored in different places. For instance, to be able to articulate the words in communication, you need to hear first. This is realized as in the drawing (see. left and top in figure 2); then, you need to take turns in the communication the actions of speaking as in the drawing down (see. left and bottom); if you need to produce some more sentences in order to keep conversation going, you need your brain to produce words (see. right and bottom). In case, you need to see what is spoken on a paper (see. right and top). And, application of this process is adopted by the mental lexicon. However, our vocabulary set in our mental lexicon is limitless and also divided into two sub-categories as *active mental lexicon* and *passive mental lexicon*. The former is the words whose meanings are well known during listening or reading, and they are words which are actively and constantly used in writing and speaking in everyday life. Active mental lexicon is used in productive phase, and contributes to the production of new information, thoughts and projects. The magnitude of the active mental lexicon is assessed by speaking and writing activities. Having a big active mental lexicon helps students be more successful in their education. Passive mental lexicon might activate process of realization and comprehension process during listening and reading in case it is needed.

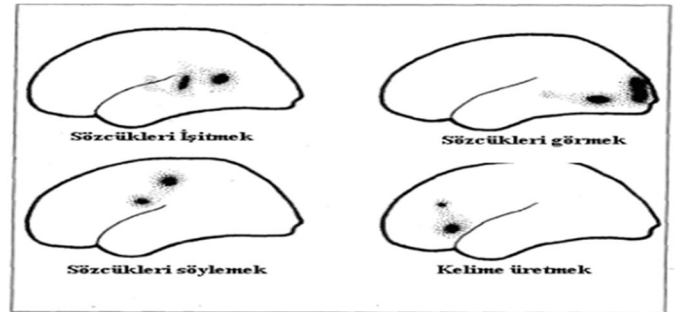


Figure 2. Language-based activities in the brain (Greenfield, 2000: cited in Kurudayıoğlu, 2018, 5).

Mental lexicon hypothesis and lexicalization

Mental Lexicon Hypothesis was proposed by Treisman (1964) for the first time; however, it is still under debate and emphasized by the linguists that there should be further studies on the matter. Treisman mentions the connection between seeing an object, perceiving and recognizing it in the Feature Integration Hypothesis. He emphasizes that perceiving an object requires an attention and this comprises specific characteristic maps emboldening color, orientation, localization, movement, loop, and depth. And, all these features help contextual meanings to occur and make them easier to be constructed concrete through revival of mind. Hence, when an individual reads or listens to any lexicon, their mental dictionaries is activated by articulatory, semantics, morphemic and functional information of the words that are quickly reached by establishing networks as quickly as possible. The information consisted of symbols creates a network model for individuals. In this model, words stored in semantics network are shaped in a specific order from top to bottom interconnecting each other and connects with different semantics networks

(e.g. the word *cow* reminds several categories from its being bovine animals, cattle, buffalo, female, heifer, steak, calf, bull, male, bullock, ox, to milk, cream, meat, minced meat, cowbarn, and so on). Sorting, categorizing, analyzing and synthesizing of all information in a wide network are important elements of permanent vocabulary learning. Therefore, it is important to present words to individuals in a context with numerous examples and various mental activities. The best way of understanding and learning new words is using the meaning of them in real life situations, associating them with experience, and constructing them in mind. Recently, how new words are put into the mental lexicon has greatly been researched and delved into several questions of "How does a reader transmit the word after he/she sees it? Which processes does the reader operate? Which processes make this procedure easier?" Researchers, in the field of developing the mental lexicon further, studied two models called as *indirect* and *direct* ones for word improvement (Fayol and Gombert, 1999).

Indirect improvement

It is the improvement of mental lexicon inductively and learning vocabulary through personal readings. In this model, the sources are various media tools in addition to speaking with friends, peers and adults. Learning activities conducted in the indirect development model to improve the active mental lexicon are motivating students to read intensively and extensively. Because permanent learning occurs through intensive and extensive readings, and gradually improving or expanding the reading process, students also prepare their environment for active learning.

Direct improvement

It is about improving student's active mental lexicon. Techniques such as analyzing the morphological features of words, activating the background knowledge related to lexicons, analyzing structures that appears in the context and even among the lines, investigating the general constructions and concepts found in the context, examining phrases and sentences which contain lexicons, searching definitions of the concepts in deep meaning are applied for deductive and direct improvement.

In the process of improving learners' vocabulary knowledge and skills indirectly or directly, there are three important duties to fulfill for teachers: a) choosing the vocabulary items to teach, b) deciding to which categories these words belong and c) choosing the right teaching techniques to realize permanent learning. Learning techniques can be listed as identifying the synonyms of the words or identifying the words, putting

the words into sentences, expecting students to guess meanings of words with the help of the clues. Taking all these into account, activities to improve active mental lexicon need to take a great deal of attention.

Mental lexicon and teaching vocabulary in teaching Turkish as a foreign language (TFL)

In teaching TFL, word production and applying grammatical structures correctly to improve the communication skills have gained much more importance than expected. Since Turkish is an agglutinative language, a learner whose native language is not agglutinative one may have difficulties to be able to produce Turkish vocab when compared with other languages like English (i.e., yap-ar-**ken** means **while** doing; yap-**a-rak** means **by** doing; yap-**ma-dan** means **without** doing or **before** doing; yap-tı-**ğ-ım-da**-when **I do** or **did**; yap-**ınca-** **when I do**; yaparsam-**if I do**). If the aim is to draw attention of foreign learners to grasp meaning of vocabulary correctly, effectively, and actively, they should be exposed to be using them and practicing them directly in their lives. In other words, by developing their vocabulary knowledge and skills, they could detect these units in a constructive approach. To ensure that, activities to improve learners' mental skills such as reflection, classification, investigation, inference, making associations, doing analysis-synthesis, and evaluation should be included; thus, learning words, discovering their meanings, and constructing them in the mind become easier and easier. To be able to apply these processes mentally, it is crucial to emphasize different functions (noun, verb, adjective, adverb, pronoun, and preposition, etc.), frequency, choice of them regarding specific fields, and contexts of the words (Güneş, 2016). In teaching TFL, word production covers teaching vocabulary by improving various elements and skills such as affixes, roots, grammar, reading, writing, speaking, comprehension, etc. rather than merely by memorization of words. Primarily, teaching vocabulary is comprised in five stages: a) meaning, b) meaningful relationship between/among words, c) emphasizing teaching vocabulary used in real life situations, d) correct or appropriate articulation, writing and using them, and e) forming grammatical structures, their usage, and riddles (Ari, 2006). No doubt, each of these stages is crucial to maintain permanent learning and there is a great burden not only for learners but also for TFL teachers. TFL teachers should provide specific knowledge and skills in vocabulary production process regarding learners' levels. As Turkish an agglutinative language, they should be provided with information and examples of lexicons as follows:

1. *Activating meanings and functions of words learned:* The appearance and production of words may differ in

Turkish when compared to other languages (native language/1st+2nd language). For instance, in verbal statements there is a regular structuring of words: a) **Gör-dü-m.** means 'I saw'; **Gör-üyor-um** means 'I see'; **Gör-ebilir-im** means 'I can see'; **görünce** means 'when I see', **görerek** means **by** seeing. In the mental lexicon, it will be easier to visualize to see the form for other verbs that look similar. Dönmek is 'to return' and as happens in a above, it might be found in the mental lexicon as **Döndüm**, **Dönüyorum**, **Dönebilirim**, **dönünce**, **dönerek** and so on. The same patterns could be constructed by applying to other verbs. In word production, there is regular structuring as well: b) **sözlük** means 'dictionary'; **sözlükçe** means 'glossary'; **sözlükler** means the plural form of 'dictionaries'; **sözlükten** means ablative case of noun 'from the dictionary'; **sözlüğümden** becomes possessive form that means 'from my dictionary'. Regarding the mental lexicon, it becomes easier to attach suffixes to words to construct meanings. When regarding pluralization, the mental storage will recall the suffix **-ler** or **-lar** and within the plurality all words would be attached within the same manner through the wording. This is realized by the mental lexicon.

2. *Internalizing the functions and derivations of words:* The functions and derivations may differ from other languages or may not have any equivalent (native/1st+2nd language). For instance, **güzel** araba means 'nice car'; Araba **güzel** gidiyor means 'The car goes well'. Even though it is hard for foreign learners of Turkish to remember which one is appropriate to apply during the production process, the mental lexicon might categorize, analyze and construct them in the mind easily).

3. *Emphasizing the characteristics and terminological meanings of words:* The characteristics and terminological meanings of the words TFL learners know are likely to be different when compared to other languages (native/1st+2nd language). For example, **bilgi** meaning 'information', para 'money' can be transformed into plural form whereas this is likely to be impossible in other languages). Nevertheless, it is the power of the mental lexicon to recall abstract nouns that take plural form are exceptions in Turkish and let foreign learners feel relaxed to use the appropriate forms in their storage.

4. *Getting learners adopt the habit of looking up in their dictionaries for unknown or unfamiliar words and structures to learn their appropriate meanings:* The order of the letters forming words TFL students know may be different or have no equivalent in the dictionary from their language (ç, ğ, ü, ı, ö, ş). For instance, the letter 'c' is pronounced as /s/ in Russian, its place is in last rows in the Cyril Alphabet and Russian dictionary. Another example is for silent letter (i.e., ğ), which cannot be heard when pronounced, in this manner, it may be difficult for TFL learners to learn. However, the mental lexicon is never based on alphabetical order in the mind and any letter might be recalled from the storage in seconds. In

addition, when Turkish language is examined syntactically, the order of words in a sentence appears to be differently constructed. (i.e., "Ben **seni** görüyorum". "**Seni** görüyorum ben". "Görüyorum **seni** ben". However, this syntax is formed merely in one way "I + **see** + you." in English as the simple present tense whereas the sentence in Turkish is in the present continuous tense). However, this flexibility might be recalled from the mental lexicon and lets learners choose whatever structure they would like to produce. Even though word order does not so flexible as much as seen, from the initial stages, foreign learners would become familiar the flexible rules of syntax.

5. *Introducing the meanings of abbreviations and punctuations:* The abbreviations and punctuation rules in other languages that TFL students know or learn may cause them to have difficulties in learning Turkish. For instance, the abbreviation RSVP –"Repondez s'il vous plait", which is derived from French and requires you to respond whether or not you will attend occasions or invitations, may not be very important in other cultures. The abbreviation, ABD in Turkish could be either Amerika Birleşik Devletleri referring to 'USA' or Anabilim Dalı (Department of any Faculty in Universities). While in America, the date is written in month/day/year format, it is written in day/month/year format in Turkish. For instance, when you invite a TFL student to an occasion dated 8/2/2020, he may perceive the date as the second of June rather than eight of February. Making comparison interlanguages in the mental lexicon lets foreign learners call and evaluate their knowledge of foreign languages, and activate their productive skills.

As accentuated in aforementioned examples, there appears a necessity to connect cognitive associations so that word construction is produced. Thus, vocabulary should be taught in appropriate vocabulary teaching techniques for TFL learners to identify, comprehend and locate vocabulary in their mental lexicon. These techniques can be classified fourfold: a) learning new vocabulary, b) discovering meanings of words, c) guessing the meaning of unknown word in the context, d) creating mind maps or clusters, respectively.

a) Technique of learning new vocabulary: In order to grasp the meaning of unknown or unfamiliar words in the context, a TFL learner is expected to get benefit from the clues (sound-form clues, grammatical clues, syntactic clues, and contextual clues) in the context.

i. *Sound-form clues:* Words are comprised of sounds and letters. These clues help learners identify words from their sounds or forms (i.e., Suffixes **-cı/çı/cu/çu** are used to make professions, these clues may help learners become familiar about Turkish vowel harmony as in bankacı 'bank officer', çiçekçi 'flowerest', sucu 'water-bearer', sütçü 'milkman', and so on).

ii. *Grammatical clues:* They give a chance to see the

morphological changes in word structure or in sentence form in the mental lexicon since attached suffixes adopt different functional aspects (Ali iyi çiçek-**çi**. means 'Ali is a good floweriest. '; Ali çiçek-çi-lik-**te** iyi means Ali is good **at** horticulture' and Ali çiçek-çi-lik-**ten** iyi anlıyor means Ali understand horticulture well.), çiçekçilikten in Turkish is used differently than in English and it literally means 'from horticulture'. This kind of expectations is also regularly stored in mental lexicon so that it is called when necessary.

iii. *Content clues*: They are the visual or structural clues to help attribute a meaning to words. A text is skimmed, and clues giving information about the text such as title, images, preliminary questions at pre-reading, structure of the text, comprehension questions at post-reading are examined ("Her işte bir hayır vardır." is a statement which has the meaning of "Every cloud has a silver lining" even though 'hayır' has also two meaning of 'no' and 'donation' in Turkish.).

iv. *Syntactic clues*: The common word order of a sentence is analyzed, and whether or not there is a morphological indication in the word is checked. Items to search in a sentence or context are as follows:

- The order of the derivational and inflectional suffixes in words (i.e., Kredi kart-lar-ım (my credit cards' rather than Kredi kart-ım-lar 'my credit -s-card').

- Affirmative and negative configuration of the operational words (i.e., 'Hasta **değil**-im' 'I am **not** sick' rather than 'Hasta-y-ım değil', 'I am sick not'; and "Bil-**mi**-yor-**du**-m" 'literally meaning is I was not knowing -it means 'I **did not** know' rather than 'Bil-me-dim', which has no common usage in Turkish language even though it is literally common way to construct a verb in negative form in English.),

- The usage of conjunctions and their associations with the punctuation marks ('... için üzgünüm' , 'I am sorry for...' rather than 'Üzgünüm ki'; 'Ali **ki**, eve geldi.', 'literally Ali **that** he came' rather than ' Eve gelen Ali', 'Ali **who comes** home'),

- Grasping a visually-presented word in a context and associating it with the background image in the mind (Aylin göz kalemini ver-**me**-di., 'Aylin **did not give** her eye-liner.', Aylin göz kalemini **ver-me-me-(y)e** karar-ı(y)dı., 'Aylin was decided **not to give** her eye-liner.').

b) Technique of discovering the meaning of the words: Learning new words for the known concepts, making their meaning clear, and identifying new concepts are crucial in activating the passive mental lexicon. This is required to accentuate what is assumed in its literal meaning and to communicate better. In such instances, a student might have difficult time in choosing the appropriate one among the words (Saatim **yok**., 'I **have no** watch. '; Zamanım yok, 'I **have** no time. '; Tam ay, 'Full moon' gördüm. rather than -Dolu-n-ay-ı gördüm.). Scanning the meaning in a text, conducting mental

activities, finding the central meaning of a text, and using their traditional and mental lexicons could be recommended to learners to find the most appropriate meaning in a dictionary.

c) Technique of inferring the meaning of a word in the context: Guessing the meaning from other words given within the same line or upper and lower lines in the text is the other crucial way to comprehend the meaning of newly inputted word. It helps students understand text better, improve and enrich their mental lexicon because what points are to be considered in identifying the meaning of a word is emphasized. A new word somehow is associated with already known words in a specific concept in various ways (noun, verb, preposition, adverb, gerund, etc.). The steps below are followed in this process:

i. The grammaticalisation of the word, the suffixes, and the order are examined (görüş-mü-yor-lar-mış., literally meaning 'It is said that **they** do not see **each other**'). These kinds of structures are stored in the mental lexicon and become available when needed. They also provide activation of utility for other forms of verbs in mind.

ii. The localisation of the word, any clue near the word is more beneficial than the clue which is far (Ali-**ler**-le uzun zaman-dır görüş-mü-yor-lar-mış, meaning ' it is said that they have not seen **the** Ali (**and his family/group**) for a long time').

As exemplified above, learning vocabulary is not solely learning the words by hearth; yet, learning them thoroughly in a context by activating their background knowledge in the issue. Therefore, which class and category a word belongs to should be implicated and accentuated in a context regarding its meaning and/or function for TFL learners (Tüm, 2016). Learning, discovering, and referring meaning in a text are techniques to activate mental activities, and using mental lexicons for learners to establish well-produced statements in their target language. Consequently, being exposed to several examples separated or in contexts helps learners become aware of diversity of linguistic usage of words and store them in their active or passive dictionary in their mental lexicon.

RESULTS

This study aims to present the forming and functioning systems of lexicon for foreign language learners whose native or foreign languages have different linguistic (morphological, syntactic, phonological, and semantic) rules when compared to Turkish and its bases on theory. It is also aimed at emphasizing that Pragmatics Theory and Feature Integration Theory, emboldening classification and categorization to let foreign language learners benefit and detect vocabulary formulation since

there is an association between word classification skills and learning vocabulary. Therefore, activities related to mental skills such as comparing, classifying, categorizing, associating, and integration have crucial role in identifying the similar and different aspects of words during learning vocabulary process. Throughout these cognitive and mental-based activities, TFL students can enrich their mental lexicons through the inductive method, and they can transform the affixes into a fun and motivational form although Turkish is an agglutinative language. One of the important contributions to activate mental lexicon is embedded in curriculum rather than teaching vocabulary theme-based divided into several units. To make vocabulary production fun, different techniques can be used in a balanced way but expanding the diversity of lexicon within cognition via a well-planned curriculum that focuses on mental dictionary process rather than attaching vocabulary list related to contexts of units. Especially with the help of instructional technologies, word production has also become easier by inserting much more creative clusters of words and their sub-meanings. Briefly, foreign language learners can be expected to expand their vocabulary storage or bring up this storage into earth by personal experiences and thoughts about creating new words since their cognitive, productive, and lexical awareness will be improved by activating their mental lexicon.

DISCUSSION

The order of the inflectional and derivational affixes, which is the most problematic area in TFL word production is a great burden or challenge for any foreign learners of Turkish language. Yet, these constructions would be learned by letting learners identify written words of target language with different symbols or letters in their wide mental lexicon. This problem results from the fact that learners come from different linguistic backgrounds (i.e., alphabets, language families that are close or far toward Turkish, articulation, etc.) should be overcome by organizing several genres of reading texts enriched within vocabulary and diversity of structures adequately embodied according to their levels. Learners who read a lot recognize words, their forms, functions and find their meanings faster since they can be stored in their mental storage during their reading process. Hence, in the mind each word associated with other words or stored in a long term memory plays an effective role to produce any discourse (Cem Değer *ibid.*, 2020; Şen, 2019). By the application of the Feature Integration Theory or Pragmatics Theory, senses will be activated or stimulated. This is how any word or discourse production will be realized. In brief, it should be ensured that learners read constantly to enrich their mental lexicons, recognize words at a glance, and find the meanings of words. In conclusion, learners are motivated through well-designed materials prepared according to

curriculums that draw attention to lexical dictionary in order to reach a sufficient communicative level in foreign language. It should be remembered that learning vocabulary would be calibrated in curriculum more rather than leave learners grasp on their own. In TFL, there are few Graded Readers to support learners to expand their vocabulary. This study deduces vocabulary learning requires being exposed to discourse in different genres and techniques so that TFL learners feel more motivated towards Turkish words and word production and feel the depth of mental lexicon that accelerates their storage in practice.

Funding

This work was supported by the Çukurova University Scientific Research Project Funding [SBA-2020-12630].

REFERENCES

- Aitchison, J. (2003).** Words in the mind: An Introduction to the Mental Lexicon. Oxford: Blackwell.
- Aksan, D. (1980).** Türkiye Türkçesinin Dünü, Bugünü, Yarını. Ankara: Bilgi Yayınevi.
- Alyılmaz, S., and Şengül, K. (2017).** Yabancı Dil Olarak Türkçe Öğretiminde Dil Öğrenme Stratejileri. Kesit Yayınları
- Arı, G. (2006).** Kelime Öğretimi. Kuramdan Uygulamaya Türkçe öğretimi, (Ed. Cemal Yıldız), Ankara: Pegem A Yayıncılık.
- Barın, E. (2003).** Importance of basic vocabulary on teaching of Turkish to foreigners. TUBAR, 8, 311-317.
- Benzer, A. (2020).** Yabancı Dil Olarak Türkçe Öğretiminde İşlevsel Dil Bilgisi. Ankara: Pegem Akademi.
- Buzan, T. (1991).** Use Your Perfect Memory. New York: Penguin Greenfield.
- Cem Değer, A., Çetin, B., and Oflaz, Köleci, E. (2020).** Kuramdan Uygulamaya Yabancılara Türkçe Dilbilgisi Öğretimi. (6. Edition). Ankara: PegemAkademi.
- Fayol M. and Gombert J.E. (1999).** "L'apprentissage de la Lecture et de l'Écriture, (Eds. J. A. Rondal and E. Esperet), *Manuel de Psychologie de l'enfant*. Bruxelles: Mardaga.
- Gökdayı, H. (2016).** "Yabancılara Türkçe Öğretiminde Sözcük Öğretimi ve Kalıp Sözcük / Words and Formulaic Expressions in Teaching Turkish as a Foreign Language", *TURKISH STUDIES -International Periodical for the Languages, Literature and History of Turkish or Turkic*, 11(19): 379-394.
- Gui, S. C. (2000).** Psycholinguistics (New Edition). Shanghai: Foreign Language Education Press.
- Güneş, F. (2016).** Kelimeleri Gücü ve Zihinsel Sözlük. Siirt Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (1). <http://dergipark.gov.tr/susbid/issue/17335/181025>.
- Harris E.J. and Spay E.R. (1990).** How to Increase Reading Ability, a Guide to Developmental and Remedial Methods. New York: Longman.
- Kana, F. and Keskin, D. (2014).** Yabancı Dil Olarak Türkçe Sözcük Öğretimi. Yabancı Dil Olarak Türkçe Öğretimi: Kuramlar, Yaklaşımlar, Etkinlikler (Edt. A. Şahin). Ankara: Pegem Akademi.
- Kantemir, E. (1997).** Yazılı ve Sözlü Anlatım. Ankara: Engin Yayınevi.
- Karatay, H. (2007).** Kelime Öğretimi. GÜ. Gazi Eğitim Fakültesi Dergisi, 27(1): 141-153.
- Korkmaz, Z. (1992).** Gramer Terimleri Sözlüğü. Ankara: TDK Yayınları.
- Kurdayioğlu, M. (2018).** Kelime Hazinesinin Zihinsel Boyutu. Ana Dili Eğitimi Dergisi, 6(1): 1-16.
- Şen, Ü. (2019).** Yabancı Dil Olarak Türkçe Öğretimi. Ankara: Pegem Akademi.
- Şengül, K. (2014).** Türkçenin Yabancı Dil Olarak Öğretiminde Alfabe Sorunu. Uluslararası Türkçe Edebiyat Kültür Eğitim Dergisi, 3(1):

325-339.

Tanrıdağ, O. (1993). Afazi, Ankara: GATA Basımevi.

TDK-TÜRKÇE SÖZLÜK (1998). 9.Baskı. Ankara: Türk Dil Kurumu Yayınları.

Treisman, A. M. (1964). Selective Attention in Man. British Medical Bulletin, 20, 12-16.

Tüm, G. (2016). Overcoming lexical difficulties for learners learning Turkish. 1st International Symposium of Teaching Turkish as a Foreign Language, 23-36.

Citation: Tüm, G. (2020). Intertwinement of mental lexicon and word production in teaching Turkish as a foreign language. African Educational Research Journal, 8(3): S145-S153.
