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Mechanisms and Methods of Mental Lexicon Formation and Acquisition in Arabic: A Theoretical and Applied Study

Arapçada Zihinsel Söz Varlığının Oluşumu ve Edinimine İlişkin Mekanizmalar ve Yöntemler: Kuramsal ve Uygulamalı Bir Çalışma

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Abstract

The mental lexicon constitutes a dynamic cognitive system through which lexical items are acquired, organized, stored, interconnected, and retrieved during language comprehension and production. This study examines the principal mechanisms and methods involved in the formation and acquisition of the Arabic mental lexicon from both theoretical and applied perspectives. It focuses on the phonological, morphological, syntactic, and semantic components that shape lexical knowledge and enable speakers to process and use Arabic vocabulary effectively. The study also considers the contribution of the Holy Quran, Arabic poetry, literary and linguistic texts, everyday language use, cultural interaction, formal education, and modern scientific disciplines to the expansion of learners' lexical repertoires. Drawing on a descriptive and analytical approach, the article explains how auditory perception, morphological derivation, syntactic organization, semantic association, repetition, contextual exposure, and active language practice facilitate the storage and retrieval of lexical units. Particular attention is given to the distinctive derivational and structural properties of Arabic and their role in establishing connections among roots, patterns, meanings, and grammatical functions within the mind. The study argues that lexical acquisition is a continuous process extending from early childhood through the successive stages of education and intellectual development. It concludes that combining the Arabic linguistic heritage with insights from psycholinguistics, cognitive linguistics, neurolinguistics, computational linguistics, and language education can strengthen lexical competence. Such integration may contribute to developing learners who are linguistically proficient, cognitively flexible, and capable of employing Arabic creatively in traditional and contemporary contexts.

Keywords: mental lexicon; Arabic language; vocabulary acquisition; lexical processing; psycholinguistics; language education

Türkçe Öz

Zihinsel söz varlığı, sözcüklerin dilin anlaşılması ve üretilmesi sırasında edinildiği, düzenlendiği, depolandığı, birbiriyle ilişkilendirildiği ve gerektiğinde hatırlandığı dinamik bir bilişsel sistemdir. Bu çalışma, Arapçadaki zihinsel söz varlığının oluşumunda ve ediniminde etkili olan temel mekanizma ve yöntemleri kuramsal ve uygulamalı açılardan incelemektedir. Araştırmada, sözcük bilgisini biçimlendiren ve konuşurların Arapça kelimeleri etkili biçimde işlemesine ve kullanmasına imkân veren ses bilgisel, biçim bilgisel, söz dizimsel ve anlam bilimsel bileşenler ele alınmaktadır. Ayrıca Kur'an-ı Kerim, Arap şiiri, edebî ve dilsel metinler, günlük dil kullanımı, kültürel etkileşim, örgün eğitim ve çağdaş bilimsel disiplinlerin öğrencilerin söz varlığını geliştirmedeki katkıları değerlendirilmektedir. Betimleyici ve çözümleyici yaklaşıma dayanan çalışma; işitsel algı, biçimsel türetme, söz dizimsel düzenleme, anlamsal ilişkilendirme, tekrar, bağlamsal karşılaşma ve etkin dil kullanımının sözcük birimlerinin depolanmasını ve hatırlanmasını nasıl kolaylaştırdığını açıklamaktadır. Arapçanın kendine özgü türetimsel ve yapısal özelliklerinin kökler, kalıplar, anlamlar ve dil bilgisel işlevler arasında zihinsel bağlantılar kurulmasındaki rolüne özel önem verilmektedir.

Çalışmada, sözcük ediniminin erken çocukluk döneminde başlayan ve eğitim ile zihinsel gelişimin farklı aşamalarında devam eden kesintisiz bir süreç olduğu ileri sürülmektedir. Sonuç olarak Arap dil mirasının ruh dilbilim, bilişsel dilbilim, sinir dilbilim, hesaplamalı dilbilim ve dil eğitimi alanlarının bulgularıyla bütünleştirilmesinin sözcüksel yeterliliği geliştirebileceği belirtilmektedir. Bu bütünleşme, Arapçayı geleneksel ve çağdaş bağlamlarda yaratıcı biçimde kullanabilen, dilsel bakımdan yetkin ve bilişsel açıdan esnek öğrencilerin yetiştirilmesine katkı sağlayabilir.

Anahtar Kelimeler: zihinsel söz varlığı; Arap dili; sözcük edinimi; sözcüksel işleme; ruh dilbilim; dil eğitimi

Introduction

Language proficiency depends not only on knowledge of grammatical rules but also on the ability to acquire, organize, retrieve, and appropriately employ words in different communicative contexts. The cognitive system responsible for these processes is generally described as the mental lexicon. Unlike a printed dictionary, which presents words as externally arranged entries, the mental lexicon is an internal and continuously developing network of lexical knowledge. It contains information about the pronunciation, orthographic form, morphological structure, grammatical properties, meanings, associations, and contextual uses of words. It therefore occupies a central position in language comprehension, production, learning, and intellectual development.

The study of the mental lexicon is particularly important in relation to Arabic because of the language's structural richness and distinctive system of lexical generation. Arabic possesses extensive derivational resources through which numerous related words can be produced from roots and morphological patterns. These relationships allow speakers to connect lexical forms with semantic fields and grammatical functions. At the same time, this structural complexity may present difficulties for learners who have not developed sufficient phonological awareness, morphological knowledge, contextual understanding, or experience in using vocabulary. Effective Arabic instruction must consequently extend beyond the memorization of isolated words and facilitate the construction of interconnected lexical networks.

The formation of the mental lexicon begins during the earliest stages of human development. Before producing complete words and sentences, children encounter language through auditory perception, imitation, repetition, gesture, and interaction. Their initial lexical representations gradually develop into more complex systems as they learn to distinguish sounds, recognize recurring forms, associate words with meanings, and combine lexical units in grammatical structures. This developmental process does not end in childhood. It continues throughout formal education and adult life as individuals encounter new academic, cultural, scientific, and technological concepts.

In the Arabic linguistic and cultural tradition, several sources have historically contributed to lexical acquisition. The Holy Quran, Arabic poetry, literary works, scholarly writings, oral communication, and the classical lexicographical tradition have enriched speakers' linguistic repertoires and preserved multiple levels of expression. These sources expose learners to diverse structures, rhetorical forms, semantic relationships, and contexts of use. However, effective acquisition requires more than exposure. Learners must be able to interpret unfamiliar expressions, establish connections between new and previously acquired words, recognize morphological relationships, and retrieve lexical items when communicating or producing knowledge.

Contemporary developments have expanded both the sources and requirements of Arabic vocabulary acquisition. Cultural exchange, translation, digital communication, specialized sciences, and technological innovation continuously introduce new concepts and terminological demands. Consequently, the Arabic mental lexicon must be viewed as an adaptable system capable of accommodating lexical innovation while maintaining connections with the language's established structural and cultural foundations. This perspective is especially relevant to computational linguistics, neurolinguistics, psycholinguistics, cognitive linguistics, and language education, all of which offer new approaches to understanding how lexical information is represented and processed.

Despite the importance of lexical competence for academic achievement and intellectual development, difficulties in understanding and using Arabic vocabulary remain evident among many pupils and university students. These difficulties may result from limited reading, insufficient contextual practice, an overreliance on memorization, weak command of morphological and semantic relationships, or inadequate integration of classical sources with contemporary instructional methods. Learners may recognize a word in one context but remain unable to interpret its extended meanings or employ it accurately in another. This indicates that lexical knowledge is multidimensional and includes receptive, productive, structural, and contextual abilities.

Against this background, the present study investigates the mechanisms and methods through which the Arabic mental lexicon is formed and acquired. It concentrates on four interrelated components: phonological, morphological, syntactic, and semantic knowledge. It also examines the role of educational, literary, cultural, and scientific resources in expanding lexical competence. By combining theoretical explanation with applied observations, the study seeks to clarify how Arabic words enter the mind, how they are classified and interconnected, and how they can be retrieved and used effectively.

The study proceeds from the assumption that lexical acquisition is a continuous cognitive and educational process rather than the simple accumulation of isolated vocabulary. Its principal objective is to identify the mechanisms that support the development of a rich and functional Arabic mental lexicon. It further aims to demonstrate that integrating the Arabic linguistic heritage with contemporary linguistic and educational approaches can enhance learners' comprehension, expression, academic performance, and creative use of language.

Literature Review

The concept of the mental lexicon has intellectual foundations in both the Arabic linguistic tradition and modern linguistic theory. Classical Arabic scholars examined the relationships among lexical roots, sounds, morphological structures, meanings, and patterns of usage long before the emergence of psycholinguistics as a distinct discipline. Their discussions of lexicography, derivation, semantic indication, and linguistic competence provide an important theoretical basis for understanding how Arabic vocabulary is structured, acquired, and mentally represented.

Classical Arabic lexicography was closely connected with the collection, clarification, classification, and preservation of linguistic knowledge. Ibn Jinni's analysis of Arabic linguistic structure and Ibn Manzur's lexicographical treatment of the root 'j-

m demonstrate the importance traditionally assigned to explanation and the removal of lexical ambiguity (Ibn Jinni, n.d.; Ibn Manzur, n.d.). In this tradition, the dictionary was not understood merely as a list of words. Rather, it represented an organized system for documenting relationships among roots, derived forms, meanings, and contexts of use. Al-Batli (1992) explains that Arabic dictionaries employed different organizational principles, including phonetic, alphabetical, and root-based arrangements. Such systems are relevant to the mental lexicon because they reflect alternative ways in which lexical information can be categorized and retrieved.

The phonological organization of early Arabic dictionaries provides a particularly important example. The lexicographical tradition associated with al-Khalil ibn Ahmad al-Farahidi arranged lexical material according to the articulation points of Arabic sounds. This method connected phonological analysis with lexical classification and demonstrated that sound patterns could function as an organizing principle for vocabulary. The introduction to *Al-Sihah* similarly discusses the methodological foundations of classical dictionary construction and the organization of lexical entries. From a cognitive perspective, these principles correspond to the role of phonological representations in recognizing, storing, and retrieving words.

The *Mu'jam Alfaz al-Qur'an al-Karim* illustrates another significant dimension of Arabic lexical organization by documenting Quranic vocabulary and its semantic uses (Arabic Language Academy, 1988). The Quran has historically served as a major source of lexical knowledge, grammatical evidence, semantic development, and rhetorical expression. Its vocabulary provides learners with examples of words functioning across different contexts and semantic relationships. Consequently, engagement with Quranic language may contribute to the development of a mental lexicon that incorporates phonological, morphological, syntactic, semantic, and contextual information.

Classical accounts of meaning also offer valuable insights into lexical processing. Al-Jurjani (1983) treats meaning through a system of definitions and conceptual relationships, while al-Zarkashi (1992) discusses indication as a relationship through which the mind moves from a signifier to what it signifies. Al-Alami (2000) similarly examines the mechanisms of semantic indication in linguistic and legal-theoretical traditions. These approaches suggest that lexical understanding is relational rather than limited to isolated word definitions. Meaning emerges through connections among linguistic forms, concepts, contexts, and inferential processes. Al-Tahanawi's terminology-oriented work further shows that specialized knowledge requires the systematic organization of concepts and their corresponding terms.

The relationship between vocabulary and syntactic organization occupies an equally important place in classical Arabic theory. Abd al-Qahir al-Jurjani (1991) argues that individual words become communicatively meaningful through their arrangement within structured discourse. This principle indicates that lexical competence cannot be separated from syntactic competence. A learner may know the dictionary meaning of a word but remain unable to use it effectively without understanding its grammatical functions and relationships with surrounding lexical units. Therefore, the mental lexicon must contain information about both word meaning and combinational possibilities.

Ibn Khaldun (2003) approached language proficiency as an acquired capacity strengthened through repeated practice and sustained exposure. His account emphasizes that linguistic competence is not established by knowing grammatical rules alone; it develops through the habitual use of language within meaningful communicative environments. This perspective is consistent with contemporary approaches that distinguish explicit linguistic knowledge from the ability to retrieve and employ vocabulary fluently. Ibn Khaldun's observations also support the view that repeated engagement with high-quality linguistic models contributes to the gradual consolidation of lexical knowledge.

Modern structural linguistics introduced a systematic distinction between language as a social system and speech as its individual realization. Saussure (1998) emphasized that linguistic units acquire their values through relationships within the broader language system. Applied to the mental lexicon, this position means that words are represented not as independent items but as elements within networks of contrasts and associations. Phonological, grammatical, and semantic relationships contribute to the identification and interpretation of each lexical unit.

Generative linguistics developed this perspective by treating lexical knowledge as part of the speaker's internal linguistic competence. Chomsky (1993) describes linguistic knowledge as a mentally represented system that enables speakers to understand and produce an unlimited number of expressions. From this perspective, the lexicon interacts with phonological, morphological, syntactic, and semantic components. Al-Fasi al-Fihri (1993) applies comparable linguistic principles to Arabic and describes the speaker's lexical and grammatical knowledge as an internally organized system. His work is particularly relevant to explaining how Arabic lexical entries are associated with structural and semantic information in the speaker's mind.

Research on child language acquisition adds a developmental dimension to the study of the mental lexicon. Ibrahim et al. (1997) examine children's language in relation to its actual conditions and future development, emphasizing the importance of the linguistic and educational environment. Abu Ilyas (2005) focuses on preschool language as a process involving both acquisition and communication. These studies indicate that vocabulary development begins through perception, imitation, interaction, repetition, and contextual use. As children mature, their vocabulary becomes increasingly differentiated and organized according to phonological, morphological, grammatical, and semantic relationships.

Alawi (2016) connects linguistics with children's linguistic development and draws attention to problems related to the school lexicon. His discussion suggests that educational materials may not always correspond to learners' cognitive and linguistic levels. When instructional vocabulary is insufficiently contextualized or poorly sequenced, students may experience difficulties in comprehension and retention. Bin Zarrouk (1995) likewise examines theories of linguistic proficiency among Arab scholars, highlighting the importance of practice and cumulative language experience in developing competence.

Ma'touq (1996) addresses linguistic output as a consequence of the interaction among lexical knowledge, intellectual capacity, cultural exposure, and communicative practice. Linguistic productivity depends on more than the number of known words; it also requires the ability to select, combine, and adapt lexical items to different contexts. This understanding reinforces the

distinction between receptive vocabulary, consisting of words that a learner recognizes, and productive vocabulary, consisting of words that can be accurately retrieved and used.

The existing literature thus provides substantial insights into individual dimensions of Arabic lexical knowledge. Classical scholars offer sophisticated accounts of roots, derivation, phonological organization, syntactic arrangement, and semantic indication, while modern linguistics examines internal linguistic competence, structural relations, language acquisition, and lexical production. Nevertheless, these perspectives are frequently studied in isolation. Relatively limited attention has been given to their integration within a unified account of the Arabic mental lexicon.

The present study addresses this gap by bringing together the Arabic linguistic heritage and modern approaches from psycholinguistics, cognitive linguistics, neurolinguistics, and language education. It conceptualizes the mental lexicon as a dynamic system in which phonological, morphological, syntactic, and semantic representations interact. It also examines the practical mechanisms through which this system develops, including listening, reading, repetition, derivation, contextual interpretation, cultural interaction, and active language use.

Methodology

Research Design

This study adopted a qualitative, descriptive, and analytical research design to examine the mechanisms through which the Arabic mental lexicon is formed, organized, enriched, and activated. The research is theoretical and interpretive rather than experimental. It does not measure lexical acquisition among a specific group of participants; instead, it synthesizes linguistic concepts, classical Arabic scholarship, modern linguistic theories, and educational practices relevant to vocabulary acquisition.

The descriptive approach was used to identify and explain the principal concepts associated with the mental lexicon, including lexical storage, retrieval, linguistic competence, and vocabulary acquisition. The analytical approach was employed to classify the components of the Arabic mental lexicon and examine the relationships among its phonological, morphological, syntactic, and semantic dimensions. A comparative dimension was also incorporated to identify areas of continuity and difference between classical Arabic linguistic thought and modern theories of language acquisition and lexical representation.

Research Questions

The study was guided by the following questions:

1. How can the mental lexicon be conceptualized within Arabic linguistic studies?
2. What phonological, morphological, syntactic, and semantic components contribute to the formation of the Arabic mental lexicon?
3. How do classical and modern linguistic perspectives explain lexical acquisition and linguistic competence?
4. What sources, mechanisms, and educational practices contribute to the enrichment of learners' Arabic mental lexicons?
5. How can traditional Arabic linguistic resources be integrated with contemporary approaches to language education?

Sources and Scope of the Study

The study was based on a purposively selected body of primary and secondary sources relevant to Arabic lexicography, semantics, syntax, linguistic competence, child language acquisition, and language education. The primary materials included classical Arabic dictionaries, linguistic works, rhetorical and semantic treatises, and discussions concerning the role of the Holy Quran, Prophetic Hadith, Arabic poetry, and established language use in vocabulary development.

The secondary sources consisted of modern works addressing structural linguistics, generative linguistics, psycholinguistics, cognitive approaches to language, child language development, educational lexicography, and lexical competence. The study drew particularly on the contributions of Ibn Jinni, Ibn Manzur, Abd al-Qahir al-Jurjani, Ibn Khaldun, al-Zarkashi, Ferdinand de Saussure, Noam Chomsky, Abd al-Qadir al-Fasi al-Fihri, and contemporary researchers concerned with Arabic language acquisition.

Sources were included when they addressed at least one of the following areas:

- The definition or organization of lexical knowledge;
- Arabic phonological, morphological, syntactic, or semantic structure;
- The acquisition and development of linguistic competence;
- The storage, association, retrieval, or productive use of vocabulary;
- The educational contribution of religious, literary, cultural, or communicative materials;
- Methods for strengthening learners' receptive and productive vocabulary.

Works unrelated to lexical formation, language acquisition, Arabic linguistic structure, or educational applications were excluded from the main analysis.

Data Collection

The research material was collected through documentary analysis. Relevant arguments, definitions, classifications, and illustrative examples were extracted from the selected sources. Particular attention was paid to discussions of the Arabic root-and-pattern system, phonetic organization, syntactic arrangement, semantic indication, vocabulary memorization, contextual learning, expression, cultural interaction, and language games.

Because the study did not use a fixed electronic corpus, the term "data" refers to concepts, textual evidence, theoretical propositions, and educational observations identified in the selected literature. Quranic language, Prophetic Hadith, Arabic poetry, prose, and lexicographical examples were treated as linguistic and pedagogical resources rather than as quantitatively sampled corpus data.

Analytical Framework

The collected material was analyzed through thematic content analysis. The analysis was organized around four principal components of the mental lexicon:

1. **Phonological component:** the auditory and articulatory representation of words, including sounds, syllables, pronunciation, and phonological recognition;
2. **Morphological component:** roots, patterns, derivational processes, inflectional forms, and relationships among members of the same lexical family;
3. **Syntactic component:** the grammatical classification of lexical items and their permissible positions and functions within sentences;
4. **Semantic component:** word meanings, associations, contextual interpretations, semantic extension, and relationships between signifiers and concepts.

A second level of analysis classified the principal means of lexical acquisition according to their educational and cognitive functions. These means included the Holy Quran, Prophetic Hadith, Arabic poetry, everyday language use, oral and written expression, reading and reception, intercultural learning, and language games. Each means was examined in terms of its potential contribution to lexical exposure, comprehension, retention, retrieval, and productive use.

Analytical Procedure

The analysis was conducted in five stages. First, the central terms—*lexicon*, *mind*, *mental lexicon*, and *acquisition*—were conceptually defined. Second, the selected literature was reviewed to identify statements concerning the structure and development of lexical knowledge. Third, these statements were coded according to the phonological, morphological, syntactic, and semantic framework. Fourth, the identified mechanisms were associated with relevant methods of lexical acquisition, including memorization, repetition, derivation, contextual interpretation, communication, cultural exposure, and creative expression. Finally, classical and contemporary perspectives were compared and synthesized to formulate an integrated explanation of Arabic mental-lexicon formation.

The analysis moved from conceptual description to functional interpretation. It first established what constitutes the mental lexicon and subsequently considered how its components interact during vocabulary acquisition and use. This procedure made it possible to connect theoretical linguistic concepts with their potential educational applications.

Trustworthiness and Interpretive Validity

Several measures were adopted to strengthen the credibility of the analysis. Concepts were examined across multiple classical and modern sources rather than being based on a single theoretical authority. The four-component analytical framework was applied consistently throughout the study. Interpretations were also compared with the original contexts in which the selected scholars discussed language, meaning, competence, or acquisition.

The study distinguished between claims explicitly stated in the sources and interpretations developed by the researcher. Transliteration and translated titles were used to make Arabic sources accessible to an international readership. Nevertheless, all bibliographic details and translated terminology should be checked against the editions consulted before final publication.

Ethical Considerations

The study relied exclusively on published linguistic, literary, and educational materials. It did not involve human participants, personal information, animals, interviews, surveys, or experimental procedures. Accordingly, institutional ethics approval and informed consent were not required. All ideas derived from earlier scholarship were attributed to their respective sources.

Methodological Limitations

The study is limited by its theoretical and documentary character. It does not experimentally test the effectiveness of the identified acquisition methods or measure learners' lexical performance. No participant sample, psycholinguistic task, classroom intervention, or statistical analysis was employed. Furthermore, the sources represent different historical periods and theoretical traditions, which may use related concepts in different ways.

The findings should therefore be interpreted as an integrated conceptual framework rather than empirical proof of causal relationships. Future research could test this framework through lexical-decision tasks, word-association experiments, classroom interventions, learner corpora, vocabulary assessment instruments, or comparative studies involving native and non-native learners of Arabic.

Results

The thematic analysis of the selected classical and modern linguistic sources revealed that the Arabic mental lexicon is not a passive collection of isolated words. It functions as a dynamic, multidimensional, and continuously developing cognitive network. Within this network, lexical items are connected through their sounds, orthographic forms, roots, morphological patterns, grammatical functions, meanings, contexts, and cultural associations. The findings can be organized into six principal themes.

1. The Mental Lexicon as an Integrated Cognitive System

The first finding is that the mental lexicon should be distinguished from a conventional printed dictionary. A printed dictionary arranges lexical entries according to an external organizational system, whereas the mental lexicon represents internally organized linguistic knowledge. It enables individuals to recognize, interpret, store, associate, and retrieve words during comprehension and production.

The analyzed sources indicate that lexical knowledge contains several kinds of information simultaneously. Knowing an Arabic word involves recognizing its pronunciation and written form, identifying its root and morphological pattern, understanding its grammatical category, interpreting its meaning within a particular context, and determining how it can be combined with other words. Therefore, lexical competence cannot be reduced to recalling dictionary definitions.

This finding is consistent with al-Fasi al-Fihri's (1993) account of the speaker's internally organized lexical and grammatical knowledge. It also corresponds to Chomsky's (1993) view that linguistic competence is an internal system that supports

the comprehension and production of language. The mental lexicon thus operates as an active interface between linguistic knowledge, memory, cognition, and communicative performance.

2. Interaction Among Four Lexical Components

The second finding concerns the interaction among the phonological, morphological, syntactic, and semantic components of lexical representation.

The **phonological component** enables the learner to recognize and distinguish the sound structure of words. Auditory exposure, correct pronunciation, repetition, recitation, and attention to articulation contribute to the establishment of stable phonological representations. The phonetic organization employed in early Arabic lexicography, particularly in the tradition of al-Khalil ibn Ahmad al-Farahidi, demonstrates the historical importance assigned to sound in identifying and organizing Arabic words.

The **morphological component** is particularly significant in Arabic because words are frequently connected through roots and patterns. Knowledge of a root permits learners to recognize relationships among several derived forms and to infer aspects of their meanings. Morphological awareness therefore expands vocabulary more efficiently than the memorization of unrelated lexical items. It allows learners to construct lexical families and recognize systematic relationships between form and meaning.

The **syntactic component** determines how a lexical item functions within an utterance. Words acquire more precise meanings when they are placed in grammatical structures. The analysis supports Abd al-Qahir al-Jurjani's (1991) argument that words become fully meaningful through their arrangement and relationships within discourse. Lexical acquisition must consequently include information about grammatical category, syntactic position, collocation, and combinational restrictions.

The **semantic component** connects linguistic forms with concepts, referents, associations, and contextual meanings. The findings show that meanings are not fixed units stored independently from context. They may expand, narrow, shift, or acquire figurative and specialized uses. The classical distinction among verbal, conventional, and rational indication demonstrates an early awareness that understanding depends on different relationships between signs and meanings (Al-Alami, 2000; Al-Zarkashi, 1992).

These four components were found to be analytically distinguishable but functionally interdependent. Effective lexical retrieval occurs when a learner can integrate the sound, form, grammatical behavior, and meaning of a word.

3. Lexical Acquisition as a Lifelong Developmental Process

The third finding is that mental-lexicon formation begins before formal schooling and continues throughout life. During early childhood, lexical development proceeds through auditory exposure, imitation, repetition, interaction, gesture, and the gradual association of sounds with people, objects, actions, and events. Formal education subsequently expands this foundation by introducing written forms, grammatical relationships, literary vocabulary, disciplinary terminology, and abstract meanings.

The analysis indicates that maturation alone does not guarantee lexical development. The richness and accessibility of the mental lexicon are influenced by the quality of linguistic input, frequency of exposure, meaningful interaction, reading practices, educational guidance, and opportunities for active use. This finding corresponds with Abu Ilyas's (2005) understanding of preschool language as an interaction between acquisition and communication. It also supports Ibn Khaldun's (2003) view that linguistic proficiency develops through sustained practice and exposure rather than through knowledge of rules alone.

Vocabulary acquisition remains continuous because social, cultural, scientific, and technological developments constantly generate new terms and uses. The mental lexicon must consequently remain adaptable and responsive to emerging communicative requirements.

4. Classical Texts as Sources of Lexical Enrichment

The fourth finding concerns the linguistic and educational value of the Holy Quran, Prophetic Hadith, Arabic poetry, and other established textual traditions. These sources expose learners to a broad range of vocabulary, morphological forms, syntactic structures, semantic relationships, and rhetorical techniques.

The Holy Quran was identified as a particularly rich source of eloquent Arabic vocabulary and contextualized meaning. Recitation may strengthen phonological recognition, while guided interpretation may develop semantic and syntactic awareness. However, memorization without comprehension is insufficient for establishing productive lexical competence. Learners need appropriate explanation, contextual analysis, and opportunities to employ acquired vocabulary.

Prophetic Hadith similarly provides access to concise expressions, established usages, and culturally significant concepts. Classical works dealing with uncommon vocabulary in Hadith demonstrate the need to interpret words within their historical and textual environments.

Arabic poetry contributes through rhythm, repetition, imagery, semantic density, and memorable linguistic patterns. It exposes learners to literal and figurative meanings while strengthening recall, expression, and rhetorical awareness. Nevertheless, the educational value of poetry depends on selecting texts suited to learners' linguistic proficiency and providing adequate contextual support.

These findings indicate that classical texts should not be treated solely as materials for memorization. They are more effective when used as resources for integrated phonological, morphological, syntactic, semantic, and cultural analysis.

5. Active Use as the Mechanism of Lexical Consolidation

The fifth finding is that repeated and purposeful use transforms receptive vocabulary into productive vocabulary. Reading and listening introduce lexical items, but speaking, writing, composition, discussion, and creative expression require learners to retrieve and apply them. Retrieval strengthens access to stored lexical knowledge and makes words more readily available for subsequent communication.

Written and oral expression were therefore identified as central mechanisms for activating the mental lexicon. During expression, learners select words, adapt their grammatical forms, arrange them syntactically, and evaluate their meanings in relation to communicative intentions. This process connects lexical knowledge with broader intellectual and creative abilities.

The result supports Ma'touq's (1996) position that linguistic output emerges from the interaction of lexical knowledge, culture, cognition, and practice. It also confirms that vocabulary size alone is not an adequate indicator of proficiency. A rich but

inaccessible vocabulary cannot support fluent communication. Lexical competence requires both the availability of linguistic information and the ability to retrieve it efficiently.

6. Cultural Interaction and Language Games as Supporting Mechanisms

The sixth finding is that cultural experience and structured language games can broaden lexical knowledge. Language carries cultural concepts, practices, values, and forms of social interaction. Intercultural learning introduces learners to new semantic fields and communicative conventions, enabling them to understand how meanings vary across communities and contexts.

Language games may also support vocabulary development when they are designed according to clear educational objectives. Word association, riddles, lexical classification, root-and-pattern activities, semantic mapping, storytelling, and contextual guessing can encourage attention, repetition, retrieval, and collaborative learning. Their effectiveness depends on their connection to learning outcomes, age appropriateness, linguistic accuracy, and integration with broader instruction. Entertainment alone does not guarantee lexical development.

Discussion

The Structure of the Arabic Mental Lexicon

The results demonstrate that the Arabic mental lexicon is best understood as a network rather than a list. Words are linked through multiple relationships, including phonological similarity, shared roots, morphological patterns, grammatical categories, semantic associations, collocations, and cultural contexts. This network model explains how speakers may recognize unfamiliar derived words by connecting them with known roots and patterns.

The result is particularly relevant to Arabic because the root-and-pattern system offers powerful mechanisms for lexical expansion. Teaching words as members of morphological families may enable learners to establish stronger and more economical mental connections than teaching each word independently. For example, when learners understand the relationship among a root, its derived verbs, nouns, participles, and abstract forms, they acquire a structured lexical network rather than several disconnected items.

However, morphological relationships do not by themselves determine complete meanings. Derived forms must still be encountered within authentic syntactic and semantic contexts. Therefore, morphology-based instruction should be combined with sentence-level analysis, contextual interpretation, and communicative practice. This integrated approach reflects the interaction among the four components identified in the results.

Continuity Between Classical and Modern Linguistic Thought

The analysis reveals significant areas of continuity between classical Arabic scholarship and modern linguistic approaches. Classical scholars did not use the contemporary expression “mental lexicon” in its present psycholinguistic sense, but they extensively investigated its constituent processes. Their works examined sound organization, derivation, grammatical arrangement, semantic indication, eloquence, usage, and the acquisition of linguistic proficiency.

The phonological organization of early dictionaries reflects an awareness that sound provides a basis for lexical classification. Classical derivational analysis demonstrates the importance of morphological relationships. Abd al-Qahir al-Jurjani's (1991) theory of arrangement establishes that meaning arises through syntactic relationships rather than through isolated words. Accounts of semantic indication by al-Zarkashi (1992), al-Jurjani (1983), and al-Alami (2000) similarly show that comprehension involves relationships between linguistic forms, concepts, and contexts.

Modern theories provide a cognitive framework for integrating these insights. Saussure's (1998) relational view of the linguistic system explains how lexical units derive value through contrasts and associations. Chomsky's (1993) treatment of internal linguistic knowledge places lexical and grammatical competence within the speaker's cognitive system. Al-Fasi al-Fihri (1993) brings comparable theoretical questions into direct engagement with Arabic structure.

The contribution of the present study lies in connecting these traditions. Rather than treating classical Arabic linguistics and modern cognitive theories as competing frameworks, the results indicate that they can be used complementarily. Classical scholarship provides detailed language-specific observations, whereas modern linguistics offers models for explaining their cognitive organization and processing.

From Memorization to Meaningful Acquisition

Memorization emerged as a recurring theme in the analyzed literature, particularly in relation to the Holy Quran, Hadith, poetry, and early education. Memorization can contribute to phonological familiarity, automatic recall, and the preservation of complex structures. Nevertheless, the findings suggest that memorization is most effective when combined with understanding and application.

A learner may memorize a passage without being able to interpret its vocabulary or transfer its expressions to a new context. This represents formal retention rather than complete lexical acquisition. Full acquisition requires the learner to recognize the word, identify its relevant meaning, understand its structural relationships, retrieve it when necessary, and employ it appropriately.

Accordingly, the pedagogical question should not be whether memorization is inherently beneficial or ineffective. The more important issue is how memorized material is processed. Guided explanation, morphological analysis, semantic mapping, contextual comparison, and productive exercises can convert memorized forms into usable lexical knowledge. This interpretation also provides a balanced approach to the debate concerning the timing and role of Quranic memorization in childhood education.

Receptive and Productive Lexical Competence

The findings support a distinction between receptive and productive vocabulary. Receptive knowledge allows learners to recognize words while listening or reading. Productive knowledge allows them to retrieve and use those words accurately in speech and writing. The latter requires stronger integration of phonological, morphological, syntactic, and semantic information.

Reception through Quranic passages, poetry, stories, prose texts, drama, and educational media expands learners' exposure to vocabulary. However, production through conversation, composition, retelling, explanation, and creative writing activates that

vocabulary. A balanced instructional program should therefore establish a cycle of exposure, interpretation, association, retrieval, production, and feedback.

This cycle also clarifies the role of the teacher. Teachers should not merely provide definitions; they should guide learners in discovering relationships among lexical items and applying them in diverse contexts. For instance, a new word can be connected to its root, derivatives, antonyms, synonyms, common collocations, figurative meanings, and examples of use. Such multidimensional instruction is more likely to produce stable and accessible mental representations.

Educational Implications

Several educational implications follow from the findings. First, Arabic vocabulary should be taught through lexical networks rather than isolated lists. Root-based grouping, morphological families, semantic fields, and contextual associations can help learners establish systematic connections.

Second, instructional materials should integrate listening, speaking, reading, and writing. Learners need to hear words accurately, observe their written forms, analyze their structures, interpret them in context, and use them productively. Separating these skills may limit the consolidation of lexical knowledge.

Third, classical and contemporary materials should be combined. Quranic texts, Hadith, poetry, and classical prose provide linguistic depth and cultural continuity, while modern texts, media, scientific terminology, and digital resources ensure relevance to contemporary communication. The objective is not to replace one source with another, but to construct a lexicon capable of operating across historical, academic, cultural, and technological contexts.

Fourth, language games should be selected according to defined cognitive and linguistic objectives. A game should require meaningful lexical recognition, classification, inference, or retrieval. Root-identification exercises, word-family challenges, semantic maps, puzzles, and collaborative storytelling may be particularly appropriate for Arabic.

Fifth, vocabulary assessment should evaluate more than recognition. Learners should be asked to explain meanings, identify derivational relationships, distinguish contextual uses, complete sentences, produce collocations, and employ words in original discourse. Such assessment would more accurately represent the multidimensional nature of the mental lexicon.

Ancient Linguistic Richness and Contemporary Specialization

The comparison between ancient and contemporary knowledge environments suggests a shift from broad encyclopedic linguistic exposure toward specialized vocabularies. Classical scholars often engaged with multiple intellectual fields through shared literary and linguistic traditions. Contemporary learners, by contrast, encounter increasingly specialized scientific and technological terminology.

This change does not necessarily indicate a simple decline in linguistic ability. Rather, it reflects a transformation in the organization and distribution of knowledge. Modern specialization may enrich particular semantic domains while reducing exposure to others. Digital technologies similarly have both supportive and disruptive possibilities. They can provide extensive lexical resources, searchable corpora, electronic dictionaries, multimedia pronunciation, and interactive exercises, but passive or fragmented use may weaken sustained reading and contextual learning.

The appropriate educational response is therefore not the rejection of technology but its purposeful integration. Digital tools should be used to strengthen lexical networks, contextual exposure, morphological awareness, and active retrieval. Computational approaches may be especially valuable for visualizing root families, tracking frequency, comparing contexts, and designing adaptive vocabulary activities.

Theoretical Contribution and Need for Empirical Testing

The study produces an integrated conceptual model in which mental-lexicon development occurs through the interaction of linguistic structure, cognitive processing, cultural exposure, and active practice. Its main theoretical contribution is the synthesis of classical Arabic linguistic principles with modern accounts of internal lexical knowledge.

Because the research is documentary and interpretive, its findings do not establish causal effects. Claims concerning the educational effectiveness of Quranic memorization, poetry, language games, morphological instruction, and intercultural learning require empirical testing. Future studies could compare different instructional methods, measure lexical growth over time, examine retrieval speed, or investigate how native and non-native learners organize Arabic roots and patterns.

Experimental and classroom-based research could determine whether integrated instruction produces better retention and transfer than isolated vocabulary teaching. Learner corpora could also reveal how lexical knowledge develops in authentic written and spoken production. Such research would convert the present conceptual framework into testable educational models.

Overall, the results indicate that developing a rich Arabic mental lexicon requires more than exposure to a large number of words. It depends on establishing organized relationships among sound, structure, grammar, meaning, context, culture, and use. The strongest lexical development occurs when learners repeatedly encounter words in meaningful settings, analyze their linguistic properties, connect them with existing knowledge, and actively employ them in communication.

Results

The thematic analysis of the selected classical and modern linguistic sources revealed that the Arabic mental lexicon is not a passive collection of isolated words. It functions as a dynamic, multidimensional, and continuously developing cognitive network. Within this network, lexical items are connected through their sounds, orthographic forms, roots, morphological patterns, grammatical functions, meanings, contexts, and cultural associations. The findings can be organized into six principal themes.

1. The Mental Lexicon as an Integrated Cognitive System

The first finding is that the mental lexicon should be distinguished from a conventional printed dictionary. A printed dictionary arranges lexical entries according to an external organizational system, whereas the mental lexicon represents internally organized linguistic knowledge. It enables individuals to recognize, interpret, store, associate, and retrieve words during comprehension and production.

The analyzed sources indicate that lexical knowledge contains several kinds of information simultaneously. Knowing an Arabic word involves recognizing its pronunciation and written form, identifying its root and morphological pattern, understanding its grammatical category, interpreting its meaning within a particular context, and determining how it can be combined with other words. Therefore, lexical competence cannot be reduced to recalling dictionary definitions.

This finding is consistent with al-Fasi al-Fihri's (1993) account of the speaker's internally organized lexical and grammatical knowledge. It also corresponds to Chomsky's (1993) view that linguistic competence is an internal system that supports the comprehension and production of language. The mental lexicon thus operates as an active interface between linguistic knowledge, memory, cognition, and communicative performance.

2. Interaction Among Four Lexical Components

The second finding concerns the interaction among the phonological, morphological, syntactic, and semantic components of lexical representation.

The phonological component enables the learner to recognize and distinguish the sound structure of words. Auditory exposure, correct pronunciation, repetition, recitation, and attention to articulation contribute to the establishment of stable phonological representations. The phonetic organization employed in early Arabic lexicography, particularly in the tradition of al-Khalil ibn Ahmad al-Farahidi, demonstrates the historical importance assigned to sound in identifying and organizing Arabic words.

The morphological component is particularly significant in Arabic because words are frequently connected through roots and patterns. Knowledge of a root permits learners to recognize relationships among several derived forms and to infer aspects of their meanings. Morphological awareness therefore expands vocabulary more efficiently than the memorization of unrelated lexical items. It allows learners to construct lexical families and recognize systematic relationships between form and meaning.

The syntactic component determines how a lexical item functions within an utterance. Words acquire more precise meanings when they are placed in grammatical structures. The analysis supports Abd al-Qahir al-Jurjani's (1991) argument that words become fully meaningful through their arrangement and relationships within discourse. Lexical acquisition must consequently include information about grammatical category, syntactic position, collocation, and combinational restrictions.

The semantic component connects linguistic forms with concepts, referents, associations, and contextual meanings. The findings show that meanings are not fixed units stored independently from context. They may expand, narrow, shift, or acquire figurative and specialized uses. The classical distinction among verbal, conventional, and rational indication demonstrates an early awareness that understanding depends on different relationships between signs and meanings (Al-Alami, 2000; Al-Zarkashi, 1992).

These four components were found to be analytically distinguishable but functionally interdependent. Effective lexical retrieval occurs when a learner can integrate the sound, form, grammatical behavior, and meaning of a word.

3. Lexical Acquisition as a Lifelong Developmental Process

The third finding is that mental-lexicon formation begins before formal schooling and continues throughout life. During early childhood, lexical development proceeds through auditory exposure, imitation, repetition, interaction, gesture, and the gradual association of sounds with people, objects, actions, and events. Formal education subsequently expands this foundation by introducing written forms, grammatical relationships, literary vocabulary, disciplinary terminology, and abstract meanings.

The analysis indicates that maturation alone does not guarantee lexical development. The richness and accessibility of the mental lexicon are influenced by the quality of linguistic input, frequency of exposure, meaningful interaction, reading practices, educational guidance, and opportunities for active use. This finding corresponds with Abu Ilyas's (2005) understanding of preschool language as an interaction between acquisition and communication. It also supports Ibn Khaldun's (2003) view that linguistic proficiency develops through sustained practice and exposure rather than through knowledge of rules alone.

Vocabulary acquisition remains continuous because social, cultural, scientific, and technological developments constantly generate new terms and uses. The mental lexicon must consequently remain adaptable and responsive to emerging communicative requirements.

4. Classical Texts as Sources of Lexical Enrichment

The fourth finding concerns the linguistic and educational value of the Holy Quran, Prophetic Hadith, Arabic poetry, and other established textual traditions. These sources expose learners to a broad range of vocabulary, morphological forms, syntactic structures, semantic relationships, and rhetorical techniques.

The Holy Quran was identified as a particularly rich source of eloquent Arabic vocabulary and contextualized meaning. Recitation may strengthen phonological recognition, while guided interpretation may develop semantic and syntactic awareness. However, memorization without comprehension is insufficient for establishing productive lexical competence. Learners need appropriate explanation, contextual analysis, and opportunities to employ acquired vocabulary.

Prophetic Hadith similarly provides access to concise expressions, established usages, and culturally significant concepts. Classical works dealing with uncommon vocabulary in Hadith demonstrate the need to interpret words within their historical and textual environments.

Arabic poetry contributes through rhythm, repetition, imagery, semantic density, and memorable linguistic patterns. It exposes learners to literal and figurative meanings while strengthening recall, expression, and rhetorical awareness. Nevertheless, the educational value of poetry depends on selecting texts suited to learners' linguistic proficiency and providing adequate contextual support.

These findings indicate that classical texts should not be treated solely as materials for memorization. They are more effective when used as resources for integrated phonological, morphological, syntactic, semantic, and cultural analysis.

5. Active Use as the Mechanism of Lexical Consolidation

The fifth finding is that repeated and purposeful use transforms receptive vocabulary into productive vocabulary. Reading and listening introduce lexical items, but speaking, writing, composition, discussion, and creative expression require learners to

retrieve and apply them. Retrieval strengthens access to stored lexical knowledge and makes words more readily available for subsequent communication.

Written and oral expression were therefore identified as central mechanisms for activating the mental lexicon. During expression, learners select words, adapt their grammatical forms, arrange them syntactically, and evaluate their meanings in relation to communicative intentions. This process connects lexical knowledge with broader intellectual and creative abilities.

The result supports Ma'touq's (1996) position that linguistic output emerges from the interaction of lexical knowledge, culture, cognition, and practice. It also confirms that vocabulary size alone is not an adequate indicator of proficiency. A rich but inaccessible vocabulary cannot support fluent communication. Lexical competence requires both the availability of linguistic information and the ability to retrieve it efficiently.

6. Cultural Interaction and Language Games as Supporting Mechanisms

The sixth finding is that cultural experience and structured language games can broaden lexical knowledge. Language carries cultural concepts, practices, values, and forms of social interaction. Intercultural learning introduces learners to new semantic fields and communicative conventions, enabling them to understand how meanings vary across communities and contexts.

Language games may also support vocabulary development when they are designed according to clear educational objectives. Word association, riddles, lexical classification, root-and-pattern activities, semantic mapping, storytelling, and contextual guessing can encourage attention, repetition, retrieval, and collaborative learning. Their effectiveness depends on their connection to learning outcomes, age appropriateness, linguistic accuracy, and integration with broader instruction. Entertainment alone does not guarantee lexical development.

Discussion

The Structure of the Arabic Mental Lexicon

The results demonstrate that the Arabic mental lexicon is best understood as a network rather than a list. Words are linked through multiple relationships, including phonological similarity, shared roots, morphological patterns, grammatical categories, semantic associations, collocations, and cultural contexts. This network model explains how speakers may recognize unfamiliar derived words by connecting them with known roots and patterns.

The result is particularly relevant to Arabic because the root-and-pattern system offers powerful mechanisms for lexical expansion. Teaching words as members of morphological families may enable learners to establish stronger and more economical mental connections than teaching each word independently. For example, when learners understand the relationship among a root, its derived verbs, nouns, participles, and abstract forms, they acquire a structured lexical network rather than several disconnected items.

However, morphological relationships do not by themselves determine complete meanings. Derived forms must still be encountered within authentic syntactic and semantic contexts. Therefore, morphology-based instruction should be combined with sentence-level analysis, contextual interpretation, and communicative practice. This integrated approach reflects the interaction among the four components identified in the results.

Continuity Between Classical and Modern Linguistic Thought

The analysis reveals significant areas of continuity between classical Arabic scholarship and modern linguistic approaches. Classical scholars did not use the contemporary expression "mental lexicon" in its present psycholinguistic sense, but they extensively investigated its constituent processes. Their works examined sound organization, derivation, grammatical arrangement, semantic indication, eloquence, usage, and the acquisition of linguistic proficiency.

The phonological organization of early dictionaries reflects an awareness that sound provides a basis for lexical classification. Classical derivational analysis demonstrates the importance of morphological relationships. Abd al-Qahir al-Jurjani's (1991) theory of arrangement establishes that meaning arises through syntactic relationships rather than through isolated words. Accounts of semantic indication by al-Zarkashi (1992), al-Jurjani (1983), and al-Alami (2000) similarly show that comprehension involves relationships between linguistic forms, concepts, and contexts.

Modern theories provide a cognitive framework for integrating these insights. Saussure's (1998) relational view of the linguistic system explains how lexical units derive value through contrasts and associations. Chomsky's (1993) treatment of internal linguistic knowledge places lexical and grammatical competence within the speaker's cognitive system. Al-Fasi al-Fihri (1993) brings comparable theoretical questions into direct engagement with Arabic structure.

The contribution of the present study lies in connecting these traditions. Rather than treating classical Arabic linguistics and modern cognitive theories as competing frameworks, the results indicate that they can be used complementarily. Classical scholarship provides detailed language-specific observations, whereas modern linguistics offers models for explaining their cognitive organization and processing.

From Memorization to Meaningful Acquisition

Memorization emerged as a recurring theme in the analyzed literature, particularly in relation to the Holy Quran, Hadith, poetry, and early education. Memorization can contribute to phonological familiarity, automatic recall, and the preservation of complex structures. Nevertheless, the findings suggest that memorization is most effective when combined with understanding and application.

A learner may memorize a passage without being able to interpret its vocabulary or transfer its expressions to a new context. This represents formal retention rather than complete lexical acquisition. Full acquisition requires the learner to recognize the word, identify its relevant meaning, understand its structural relationships, retrieve it when necessary, and employ it appropriately.

Accordingly, the pedagogical question should not be whether memorization is inherently beneficial or ineffective. The more important issue is how memorized material is processed. Guided explanation, morphological analysis, semantic mapping, contextual comparison, and productive exercises can convert memorized forms into usable lexical knowledge. This interpretation also provides a balanced approach to the debate concerning the timing and role of Quranic memorization in childhood education.

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Second, instructional materials should integrate listening, speaking, reading, and writing. Learners need to hear words accurately, observe their written forms, analyze their structures, interpret them in context, and use them productively. Separating these skills may limit the consolidation of lexical knowledge.

Third, classical and contemporary materials should be combined. Quranic texts, Hadith, poetry, and classical prose provide linguistic depth and cultural continuity, while modern texts, media, scientific terminology, and digital resources ensure relevance to contemporary communication. The objective is not to replace one source with another, but to construct a lexicon capable of operating across historical, academic, cultural, and technological contexts.

Fourth, language games should be selected according to defined cognitive and linguistic objectives. A game should require meaningful lexical recognition, classification, inference, or retrieval. Root-identification exercises, word-family challenges, semantic maps, puzzles, and collaborative storytelling may be particularly appropriate for Arabic.

Fifth, vocabulary assessment should evaluate more than recognition. Learners should be asked to explain meanings, identify derivational relationships, distinguish contextual uses, complete sentences, produce collocations, and employ words in original discourse. Such assessment would more accurately represent the multidimensional nature of the mental lexicon.

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This change does not necessarily indicate a simple decline in linguistic ability. Rather, it reflects a transformation in the organization and distribution of knowledge. Modern specialization may enrich particular semantic domains while reducing exposure to others. Digital technologies similarly have both supportive and disruptive possibilities. They can provide extensive lexical resources, searchable corpora, electronic dictionaries, multimedia pronunciation, and interactive exercises, but passive or fragmented use may weaken sustained reading and contextual learning.

The appropriate educational response is therefore not the rejection of technology but its purposeful integration. Digital tools should be used to strengthen lexical networks, contextual exposure, morphological awareness, and active retrieval. Computational approaches may be especially valuable for visualizing root families, tracking frequency, comparing contexts, and designing adaptive vocabulary activities.

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Experimental and classroom-based research could determine whether integrated instruction produces better retention and transfer than isolated vocabulary teaching. Learner corpora could also reveal how lexical knowledge develops in authentic written and spoken production. Such research would convert the present conceptual framework into testable educational models.

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Table 1

Analytical Framework for Examining the Arabic Mental Lexicon

Analytical dimension	Linguistic information represented	Principal cognitive operation	Arabic-specific feature	Observable lexical outcome
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Phonological	Phonemes, syllables, stress, pronunciation, and auditory form	Recognition and phonological retrieval	Articulation points, emphatic sounds, and phonological variation	Accurate recognition, pronunciation, and recall
Orthographic	Written form and letter sequence	Visual identification and form–sound mapping	Context-dependent letter forms and diacritics	Accurate reading and written word recognition
Morphological	Roots, patterns, affixes, inflection, and derivation	Decomposition, classification, and lexical-family activation	Nonconcatenative root-and-pattern morphology	Recognition and generation of related words
Syntactic	Word class, grammatical function, agreement, and combinational restrictions	Structural integration and sentence construction	Case, agreement, and flexible word order	Grammatically appropriate lexical use
Semantic	Literal, contextual, figurative, and specialized meanings	Meaning activation, selection, and inference	Polysemy and historically layered semantic fields	Context-sensitive comprehension
Pragmatic-cultural	Register, communicative purpose, cultural associations, and usage conventions	Contextual adaptation and interpretation	Quranic, literary, formal, and contemporary registers	Socially and culturally appropriate expression

Note. The dimensions are analytically separable but operate interactively during lexical recognition, comprehension, and production.

Table 2
Alignment of Research Questions, Data Sources, and Analytical Procedures

Research question	Documentary evidence examined	Analytical procedure	Expected analytical output
How is the mental lexicon conceptualized in Arabic linguistic studies?	Classical dictionaries, works on definitions, and modern linguistic studies	Conceptual and terminological analysis	An operational definition of the Arabic mental lexicon
Which components constitute Arabic lexical knowledge?	Works on phonology, morphology, syntax, semantics, and linguistic competence	Deductive thematic coding	A multidimensional lexical framework
How do classical and modern perspectives explain lexical acquisition?	Classical Arabic scholarship and modern structural, generative, and acquisition theories	Comparative interpretive analysis	Areas of convergence, divergence, and complementarity
Which resources contribute to lexical enrichment?	Quranic, Hadith, poetic, literary, educational, and cultural materials	Functional classification	A taxonomy of lexical-acquisition resources
Which activities facilitate lexical retention and productive use?	Discussions of memorization, repetition, reading, expression, communication, and games	Mechanism–outcome mapping	A process model of lexical consolidation
How can traditional and contemporary approaches be integrated?	Findings from all thematic categories	Integrative synthesis	Pedagogical principles for Arabic vocabulary instruction

Note. “Expected analytical output” refers to the type of knowledge produced through documentary analysis rather than an experimentally measured outcome.

Table 3
Principal Sources of Arabic Lexical Acquisition and Their Cognitive Contributions

Acquisition source	Dominant input mode	Primary lexical contribution	Cognitive mechanism	Pedagogical condition
Holy Quran	Oral and written	Eloquent vocabulary, phonological patterns, syntactic structures, and contextual meanings	Recitation, repetition, association, and semantic interpretation	Memorization should be accompanied by guided comprehension
Prophetic Hadith	Oral and written	Concise expressions, established usage, and culturally embedded terminology	Contextual inference and form–meaning association	Difficult and historically specific words require explanation
Arabic poetry	Oral, written, and performative	Figurative language, rhythm, imagery, and rhetorical vocabulary	Mnemonic reinforcement and semantic elaboration	Texts should correspond to learners’ proficiency levels

Literary and prose texts	Written	Narrative, descriptive, argumentative, and disciplinary vocabulary	Contextual learning and discourse integration	Vocabulary should be examined within complete passages
Everyday interaction	Primarily oral	High-frequency vocabulary, collocations, and pragmatic conventions	Repeated retrieval and communicative adjustment	Learners require meaningful and sustained interaction
Written and oral expression	Productive	Activation and consolidation of existing vocabulary	Retrieval practice and syntactic integration	Corrective feedback should address meaning and use
Intercultural learning	Multimodal	New concepts, registers, and culturally specific meanings	Conceptual expansion and comparison	New terms should be connected with prior knowledge
Language games	Interactive and multimodal	Rapid recognition, classification, association, and retrieval	Attention, repetition, and feedback	Games must serve explicit linguistic objectives
Digital linguistic resources	Digital and multimodal	Contemporary terminology, pronunciation, and contextual examples	Search, comparison, visualization, and adaptive repetition	Resources must be accurate and pedagogically structured

Table 4*Thematic Findings from the Documentary Analysis*

Main theme	Synthesized finding	Supporting theoretical tradition	Implication
Networked lexical representation	Arabic words are mentally represented through multiple structural and semantic relationships rather than as isolated entries	Classical lexicography; structural and cognitive linguistics	Vocabulary should be taught through networks and lexical families
Component interaction	Phonological, morphological, syntactic, and semantic information operates jointly during lexical processing	Generative linguistics; psycholinguistic accounts of lexical knowledge	Instruction should integrate form, structure, meaning, and use
Morphological productivity	Root-and-pattern awareness supports the recognition and production of related lexical forms	Arabic morphological and lexicographical traditions	Morphological analysis can accelerate vocabulary expansion
Contextual determination of meaning	Lexical meaning is selected and refined through syntactic, textual, and cultural context	Classical semantics; relational theories of language	Isolated translation is insufficient for complete acquisition
Lifelong lexical development	Mental-lexicon formation begins in early childhood and continues through education and social experience	Child-language and competence-development studies	Vocabulary instruction should be cumulative and developmentally sequenced
Input–output interdependence	Exposure expands receptive knowledge, while expression converts knowledge into productive competence	Usage-based educational perspectives	Reading and listening should be followed by speaking and writing
Heritage–modernity integration	Classical materials and contemporary resources provide complementary forms of lexical knowledge	Arabic heritage and modern applied linguistics	Curricula should combine classical, scientific, and digital vocabulary
Guided memorization	Memorization supports retention but does not ensure contextual or productive competence	Classical educational thought and modern memory principles	Memorized material requires interpretation and application
Cultural embeddedness	Vocabulary carries social, historical, and cultural knowledge	Sociolinguistic and intercultural perspectives	Lexical education should include cultural and pragmatic information

Note. Findings were generated through conceptual comparison and thematic synthesis; they should not be interpreted as statistically tested causal relationships.

Table 5*Comparison of Classical and Contemporary Perspectives on Arabic Lexical Knowledge*

Dimension	Classical Arabic perspective	Contemporary linguistic perspective	Integrated interpretation
Lexical organization	Words are organized through roots, articulation, derivation, and semantic categories	Lexical units are represented in associative cognitive networks	Root-based organization constitutes one layer of a broader mental network

Sound	Phonetic properties and articulation guide correct usage and dictionary organization	Phonological representations support recognition and retrieval	Phonological accuracy facilitates stable lexical access
Morphology	Derivation generates extensive families of related words	Morphological decomposition connects complex forms to stored representations	Root-and-pattern awareness strengthens lexical efficiency
Syntax	Meaning emerges through the arrangement and relationship of words	Lexical entries include grammatical and combinational information	Word knowledge includes knowledge of permissible structural use
Semantics	Meaning involves relations among expressions, concepts, and contextual indications	Meaning activation is dynamic, relational, and context-sensitive	Context selects among interconnected semantic possibilities
Acquisition	Competence develops through memorization, imitation, practice, and exposure to authoritative language	Acquisition develops through input, interaction, processing, and retrieval	Effective learning combines structured exposure with active use
Linguistic competence	Repeated practice produces an established linguistic disposition	Internalized knowledge enables comprehension and production	Competence combines stored knowledge with accessible performance
Cultural transmission	Language preserves religion, literature, identity, and inherited knowledge	Language mediates socialization and intercultural meaning	Lexical development is both cognitive and cultural

Table 6
Proposed Process Model of Arabic Mental-Lexicon Development

Stage	Learner activity	Mental operation	Representation developed	Expected function
1. Exposure	Hearing or reading a lexical item	Attention and initial recognition	Preliminary phonological or orthographic form	Familiarity
2. Form analysis	Identifying sounds, letters, roots, and patterns	Segmentation and morphological decomposition	Structured lexical form	Word identification
3. Meaning construction	Interpreting the item within context	Association and semantic inference	Contextualized meaning	Comprehension
4. Network integration	Connecting the item with synonyms, antonyms, derivatives, and concepts	Categorization and relational mapping	Integrated lexical network	Depth of lexical knowledge
5. Consolidation	Repeating, reviewing, and encountering the item across contexts	Memory strengthening	Stable lexical representation	Retention
6. Retrieval	Recalling the item during a task	Controlled or automatic lexical access	Accessible representation	Fluency
7. Productive application	Using the item in speech or writing	Selection and syntactic integration	Productive lexical competence	Accurate communication
8. Adaptive extension	Applying the item to new registers or meanings	Generalization and pragmatic adjustment	Flexible lexical representation	Transfer and creativity

Note. The stages are recursive rather than strictly linear. Learners may return to earlier stages when encountering a word in a new context.

Table 7
Pedagogical Propositions Derived from the Findings

Proposition	Recommended instructional practice	Avoidable limitation	Suggested assessment
Teach lexical relationships	Present roots, patterns, derivatives, semantic fields, and collocations together	Memorizing unrelated word lists	Word-family construction
Integrate linguistic components	Combine pronunciation, morphology, syntax, and meaning in each vocabulary lesson	Teaching definition without structural use	Contextual sentence production
Connect input with output	Follow reading and listening with speaking and writing activities	Passive exposure without retrieval	Oral retelling or written synthesis
Contextualize heritage texts	Explain vocabulary and structures in Quranic, Hadith, poetic, and classical passages	Memorization without comprehension	Paraphrase and contextual interpretation

Use multiple encounters	Recycle words across texts, tasks, and registers	One-time presentation	Delayed retrieval assessment
Employ purposeful games	Use riddles, classification, semantic mapping, and word-family challenges	Entertainment without measurable learning goals	Pre-task and post-task lexical recall
Integrate contemporary terminology	Include scientific, technological, and intercultural vocabulary	Limiting instruction to historical registers	Discipline-specific vocabulary task
Assess depth and accessibility	Measure meaning, structure, association, context, and production	Recognition-only tests	Mixed receptive–productive assessment

Conclusion

This study examined the mechanisms and methods involved in the formation and acquisition of the Arabic mental lexicon by integrating insights from classical Arabic scholarship, modern linguistics, and language education. The analysis demonstrates that the mental lexicon is not a static repository of isolated words. It is a dynamic cognitive network in which lexical items are organized through phonological, orthographic, morphological, syntactic, semantic, pragmatic, and cultural relationships. Lexical competence consequently involves more than knowing the dictionary meaning of a word; it requires the ability to recognize its form, understand its structural properties, interpret it contextually, connect it with existing knowledge, and retrieve it appropriately during communication.

The findings indicate that the phonological, morphological, syntactic, and semantic components of lexical knowledge are analytically distinguishable but functionally interdependent. Phonological representations support the recognition and retrieval of spoken words, while orthographic knowledge facilitates their identification in written texts. Morphological awareness is particularly important in Arabic because its root-and-pattern system enables learners to connect individual words with broader derivational families. Syntactic knowledge determines how words may be combined and used within sentences, whereas semantic and pragmatic knowledge enables learners to select contextually appropriate meanings. Effective vocabulary acquisition therefore depends on the integration of these components rather than on the isolated teaching of word definitions.

The study further establishes that mental-lexicon formation is a cumulative and lifelong process. It begins in early childhood through listening, imitation, repetition, and interaction and subsequently develops through formal education, independent reading, cultural participation, disciplinary study, and professional experience. Every stage of education introduces distinctive lexical demands. Consequently, vocabulary curricula must be developmentally sequenced and responsive to learners' changing cognitive, academic, and communicative needs.

The analysis also reveals considerable continuity between classical Arabic linguistic thought and contemporary theories of lexical representation. Classical scholars examined sound organization, derivation, syntactic arrangement, semantic indication, and linguistic proficiency, even though they did not employ the contemporary psycholinguistic term *mental lexicon*. Modern structural, generative, cognitive, and educational approaches provide explanatory models through which these earlier insights can be synthesized. The Arabic linguistic heritage and modern linguistic theory should therefore be treated as complementary sources of knowledge rather than as mutually exclusive traditions.

The Holy Quran, Prophetic Hadith, Arabic poetry, dictionaries, literary texts, stories, cultural interaction, and established language use were identified as important sources of lexical enrichment. Their contribution, however, depends on how they are used pedagogically. Memorization can strengthen phonological familiarity and recall, but it does not independently guarantee semantic understanding or productive competence. Memorized and received vocabulary must be explained, contextualized, connected to related lexical forms, and employed in oral and written expression.

One of the study's most important conclusions is that active use consolidates lexical knowledge. Listening and reading contribute to receptive vocabulary, whereas speaking, writing, discussion, composition, and creative expression transform receptive knowledge into productive competence. Repeated retrieval across different contexts strengthens accessibility and enables learners to use words with increasing accuracy, flexibility, and fluency. Structured language games may support this process when they require meaningful recognition, classification, association, inference, and retrieval.

Contemporary media and digital technologies also have a significant role in lexical development. They can broaden access to dictionaries, corpora, pronunciation models, educational content, and specialized terminology. At the same time, inaccurate language, fragmented exposure, and passive consumption may interfere with the development of coherent lexical knowledge. The educational value of technology therefore depends on linguistic accuracy, instructional design, and opportunities for active engagement.

Overall, the study proposes that Arabic lexical education should move from word accumulation toward network construction. Learners should be taught to connect words through their sounds, roots, patterns, grammatical functions, semantic fields, collocations, contexts, and cultural associations. Such an approach can improve comprehension, academic achievement, expressive capacity, and linguistic creativity.

The study's conclusions must nevertheless be interpreted within the limits of its qualitative and documentary design. No learners were tested, no classroom intervention was conducted, and no quantitative relationships were measured. The findings offer an integrated theoretical framework rather than empirical proof of the effectiveness of particular instructional methods. This framework provides a foundation for future psycholinguistic, corpus-based, experimental, and classroom research on the Arabic mental lexicon.

Recommendations

Based on the findings, the study proposes the following recommendations:

1. Adopt an integrated model of vocabulary instruction.
Arabic vocabulary should be taught by combining pronunciation, orthography, morphology, syntax, semantics, pragmatics, and contextual usage. Presenting only a translation or dictionary definition does not provide complete lexical knowledge.
2. Organize vocabulary through roots and morphological families.
Teachers and textbook designers should present related derivatives together and explain their shared roots, patterns, grammatical categories, and semantic relationships. This can help learners recognize unfamiliar words and expand their vocabulary systematically.
3. Replace isolated word lists with lexical networks.
New words should be connected with synonyms, antonyms, collocations, semantic fields, associated concepts, and examples of use. Visual semantic maps and lexical-family charts may support these connections.
4. Balance receptive and productive learning.
Reading and listening activities should be followed by speaking, writing, paraphrasing, summarizing, discussion, and composition. Learners must retrieve and use newly acquired vocabulary rather than merely recognize it.
5. Integrate classical sources with contemporary language.
Curricula should draw on the Holy Quran, Prophetic Hadith, Arabic poetry, classical prose, and lexicographical heritage while also incorporating contemporary literature, journalism, scientific terminology, digital communication, and intercultural contexts.
6. Combine memorization with comprehension and application.
Memorized Quranic passages, Hadith, poetry, or literary extracts should be accompanied by explanation of vocabulary, morphological analysis, contextual interpretation, and productive activities. Memorization should function as a foundation for understanding rather than as the final instructional objective.
7. Sequence vocabulary according to educational level.
Primary, intermediate, secondary, and university curricula should define appropriate lexical outcomes for each stage. Vocabulary selection should consider frequency, conceptual difficulty, morphological complexity, learner needs, and communicative relevance.
8. Strengthen the role of dictionaries in education.
Learners should be trained to use monolingual Arabic dictionaries, specialized dictionaries, and reliable electronic lexical resources. Dictionary instruction should include root identification, interpretation of entries, differentiation among meanings, and selection of contextually appropriate definitions.
9. Use purposeful and age-appropriate language games.
Riddles, word-family exercises, semantic classification, contextual guessing, lexical puzzles, and collaborative storytelling should be designed around explicit learning objectives. Their effectiveness should be evaluated through retrieval and application tasks.
10. Improve the linguistic quality of educational media.
Television, radio, digital platforms, publishers, and educational-content producers should promote accurate and accessible Arabic. Media organizations should involve language specialists in reviewing terminology, subtitles, educational programs, and public communication.
11. Develop teachers' knowledge of lexical instruction.
Teacher-training programs should include mental-lexicon theory, Arabic morphology, contextual vocabulary teaching, lexical assessment, corpus use, and strategies for converting receptive vocabulary into productive competence.
12. Apply technology through a pedagogically guided framework.
Digital dictionaries, learner corpora, pronunciation tools, spaced-retrieval systems, and interactive platforms should support structured lexical learning. Technology should supplement teacher guidance and meaningful communication rather than encourage passive exposure.
13. Assess lexical depth as well as lexical size.
Vocabulary assessment should measure pronunciation, morphological awareness, grammatical behavior, contextual meaning, collocation, semantic relationships, and productive use. Recognition-based tests alone cannot adequately evaluate lexical competence.
14. Design specialized lexical programs for non-native speakers.
Arabic-as-a-second-language programs should progressively integrate phonological training, root-and-pattern awareness, high-frequency vocabulary, contextual reading, and communicative production. Differences between Modern Standard Arabic and spoken varieties should be addressed systematically.
15. Create contemporary Arabic lexical databases and learner corpora.
Universities, language academies, and research centers should collaborate on searchable databases documenting frequency, derivational relationships, collocations, semantic change, disciplinary terminology, and learner errors.
16. Promote interdisciplinary research.
Research on the Arabic mental lexicon should connect Arabic linguistics with psycholinguistics, cognitive science, neurolinguistics, computational linguistics, education, and language technology. This would support more comprehensive explanations of lexical storage and retrieval.
17. Empirically test the proposed framework.
Future studies should employ classroom experiments, lexical-decision tasks, word-association tests, eye-tracking,

reaction-time measures, longitudinal vocabulary assessments, and learner-corpus analysis. Such methods can test which instructional mechanisms produce measurable improvements.

18. Conduct comparative studies across learner groups.
Future research should compare children and adults, native and non-native speakers, different educational levels, and learners exposed to different instructional environments. These comparisons could clarify how lexical organization changes across age, proficiency, and context.
19. Investigate the influence of digital media on Arabic lexical competence.
Empirical research is needed to determine how social media, electronic reading, automated translation, and AI-supported learning affect vocabulary depth, retention, retrieval, and linguistic accuracy.
20. Establish lexical development as a central educational objective.
Educational policy should recognize the mental lexicon as a foundation of reading comprehension, academic learning, critical thinking, and effective expression. Vocabulary development should be integrated across subjects rather than confined to language classes.

Declarations

Ethics Approval and Consent to Participate:

This study is based exclusively on the analysis of published linguistic, literary, and educational sources. It did not involve human participants, animals, personal data, interviews, surveys, or experimental procedures. Therefore, ethics committee approval and informed consent were not required.

Consent for Publication:

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Author Contributions:

Belkacem Ben Ziane was solely responsible for the conceptualization, methodology, investigation, analysis, interpretation, original manuscript preparation, critical revision, and approval of the final version.

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Use of Generative Artificial Intelligence:

Generative artificial intelligence tools were used for language refinement, structural organization, and editorial assistance during manuscript preparation. They were not treated as sources of evidence or scholarly authority. The author reviewed, verified, revised, and approved the entire manuscript and assumes full responsibility for its accuracy, originality, citations, arguments, and conclusions.

Ethical Approval

This study is based exclusively on the analysis of published texts, documentary and archival sources, and secondary literature. It does not involve human participants or animal subjects, and therefore ethics committee approval was not required. All sources are cited in accordance with academic integrity and copyright principles.

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Declaration of Generative AI and AI-Assisted Technologies

The authors declare that no generative artificial intelligence (AI) or AI-assisted technologies were used in the design of the study, data collection, analyses, or interpretation of the scientific content of this manuscript. Any language-editing support was reviewed and verified by the authors, who take full responsibility for the content of the published article.

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Genişletilmiş Özet

Giriş

Zihinsel söz varlığı, bireyin bir dile ait sözcükleri edinmesini, sınıflandırmasını, depolamasını, birbiriyle ilişkilendirmesini ve iletişim sırasında geri çağırmasını sağlayan dinamik bir bilişsel sistemdir. Basılı sözlüklerden farklı olarak zihinsel söz varlığı, sözcükleri yalnızca tanımlarıyla değil; ses özellikleri, yazılı biçimleri, kökleri, morfolojik kalıpları, dil bilgisel işlevleri, anlamları ve kullanım bağlamlarıyla birlikte temsil eder. Bu nedenle dil yeterliliği, bilinen sözcüklerin sayısından çok, sözcükler arasındaki ilişkilerin kurulmasına ve bu sözcüklerin uygun bağlamlarda kullanılabilmesine bağlıdır.

Arapça, kök ve kalıp temelli yapısı, geniş türetme olanakları, çok anlamlılığı ve tarihsel metin birikimi nedeniyle zihinsel söz varlığının incelenmesi bakımından özel bir öneme sahiptir. Aynı kökten türeyen sözcükler arasında biçimsel ve anlamsal ilişkilerin bulunması, öğrencilerin yeni sözcükleri daha sistematik biçimde öğrenmesine imkân sağlamaktadır. Bununla birlikte, öğrencilerin yalnızca sözcük anlamlarını ezberlemesi, bu yapısal ilişkileri kavramaları ve sözcükleri üretken şekilde kullanmaları için yeterli değildir.

Kur'an-ı Kerim, hadisler, Arap şiiri, sözlükler, edebî metinler ve günlük dil kullanımı tarih boyunca Arapça söz varlığının edinilmesinde temel kaynaklar olmuştur. Günümüzde bunlara medya, kültürlerarası iletişim, bilimsel terminoloji ve dijital kaynaklar da eklenmiştir. Ancak bu kaynakların sözcüksel gelişime katkısı, öğrencilerin sözcükleri yalnızca görmesi veya ezberlemesiyle değil; anlamlandırması, sınıflandırması ve etkin biçimde kullanmasıyla gerçekleşmektedir.

Bu çalışmanın amacı, Arapçada zihinsel söz varlığının oluşumunu sağlayan temel bileşenleri açıklamak ve sözcük edinimini destekleyen geleneksel ve çağdaş yöntemleri bütüncül bir çerçevede incelemektir. Çalışmada ayrıca klasik Arap dil düşüncesi ile modern dilbilim kuramları arasındaki ilişkiler değerlendirilmekte ve bulguların Arapça öğretimine yönelik sonuçları tartışılmaktadır.

Yöntem

Araştırmada nitel, betimleyici ve çözümleyici bir çalışma deseni benimsenmiştir. Çalışma deneysel veya nicel bir araştırma değildir; katılımcı, anket, görüşme, sınıf uygulaması ya da istatistiksel veri içermemektedir. Araştırmanın temel materyalini klasik Arap dilbilimi, sözlükbilim, anlam bilimi, söz dizimi, dil edinimi, çocuk dili ve modern dilbilim alanlarında yayımlanmış çalışmalar oluşturmaktadır. Bu nedenle araştırmada veri toplama yöntemi olarak doküman incelemesi kullanılmıştır.

Kaynaklar amaçlı seçim yoluyla belirlenmiştir. Zihinsel söz varlığının tanımı, sözcüksel bilginin düzenlenmesi, Arapçanın ses ve biçim yapısı, dilsel yeterlilik, sözcük edinimi, sözcüklerin saklanması ve geri çağırılması ile eğitimsel uygulamaları ele alan çalışmalar incelemeye dâhil edilmiştir. İbn Cinnî, İbn Manzûr, Abdülkâhir el-Cürânî, İbn Haldûn ve Zerkeşî gibi klasik bilginlerin görüşleri; Saussure, Chomsky ve Abdülkadir el-Fâsî el-Fihri gibi modern dilbilimcilerin yaklaşımlarıyla karşılaştırılmıştır.

Toplanan materyal tematik içerik analiziyle incelenmiştir. İlk aşamada sözlük, zihin, zihinsel söz varlığı ve edinim kavramları tanımlanmıştır. İkinci aşamada kaynaklardaki görüşler ses bilgisel, biçim bilgisel, söz dizimsel ve anlam bilimsel bileşenler altında kodlanmıştır. Üçüncü aşamada Kur'an-ı Kerim, hadis, şiir, günlük kullanım, sözlü ve yazılı anlatım, metin alımlama, kültürlerarası öğrenme ve dil oyunları gibi edinim kaynakları sınıflandırılmıştır. Son aşamada klasik ve çağdaş yaklaşımlar karşılaştırılarak bütüncül bir açıklama geliştirilmiştir.

Çözümlemenin güvenilirliğini desteklemek amacıyla kavramlar birden fazla klasik ve modern kaynak üzerinden değerlendirilmiş ve aynı tematik çerçeve çalışma boyunca tutarlı biçimde uygulanmıştır. Bununla birlikte araştırmanın dokümana

dayalı olması, belirlenen yöntemlerin öğrencilerin başarıları üzerindeki etkisini doğrudan ölçmeyi mümkün kılmamaktadır. Bu nedenle ulaşılan sonuçlar, deneysel olarak doğrulanmış nedensel ilişkiler değil, kuramsal ve eğitimsel önermeler olarak değerlendirilmelidir.

Bulgular ve Tartışma

Araştırmanın ilk bulgusu, Arapça zihinsel söz varlığının birbirinden bağımsız sözcüklerden oluşan durağan bir depo olmadığıdır. Sözcükler; ses benzerliği, yazılı biçim, ortak kök, morfolojik kalıp, dil bilimsel kategori, anlam ilişkisi, eşdizimlilik ve kültürel bağlam aracılığıyla birbirine bağlanan çok boyutlu bir ağ içinde temsil edilmektedir. Bir sözcüğü bilmek, yalnızca onun sözlük anlamını hatırlamak değil, sözcüğün nasıl telaffuz edildiğini, hangi kökten türediğini, cümlede nasıl işlediğini ve farklı bağlamlarda hangi anlamları kazandığını bilmeyi gerektirmektedir.

İkinci bulgu, ses bilimsel, biçim bilimsel, söz dizimsel ve anlam bilimsel bileşenlerin karşılıklı etkileşim içinde çalıştığını göstermektedir. Ses bilimsel temsil sözcüğün işitilmesini ve tanınmasını kolaylaştırırken biçim bilimsel bilgi, kök ve kalıplar üzerinden sözcük ailelerinin kurulmasını sağlamaktadır. Söz dizimsel bilgi, sözcüğün cümle içerisindeki görevini ve diğer sözcüklerle birleşme olanaklarını belirlemektedir. Anlam bilimsel bileşen ise bağlama uygun anlamın seçilmesini ve sözcüğün kavramsal ilişkiler içerisine yerleştirilmesini mümkün kılmaktadır.

Üçüncü bulgu, sözcük ediniminin erken çocukluk döneminden başlayarak yaşam boyunca devam eden bir süreç olduğudur. Dinleme, taklit, tekrar ve sosyal etkileşim, ilk sözcüksel temsillerin oluşmasını sağlamaktadır. Örgün eğitim, okuma, kültürel katılım ve bilimsel öğrenme ise bu temsilleri genişletmektedir. Her eğitim kademesinin farklı sözcüksel gereksinimleri bulunduğundan öğretim programlarının aşamalı şekilde düzenlenmesi gerekmektedir.

Kur'an-ı Kerim, hadisler, Arap şiiri ve klasik metinler; sözcük, yapı, anlam ve üslup bakımından önemli kaynaklar olarak belirlenmiştir. Ancak ezberleme tek başına üretken yeterlilik oluşturmamaktadır. Ezberlenen dilsel malzemenin açıklanması, bağlam içinde çözümlenmesi ve sözlü ya da yazılı anlatımda kullanılması gerekmektedir.

Son olarak dil oyunları, kültürlerarası öğrenme ve dijital kaynakların, açık eğitimsel hedeflerle kullanıldığında sözcük tanıma ve geri çağırmaı destekleyebileceği sonucuna ulaşılmıştır. Bulgular genel olarak klasik Arap dil düşüncesi ile modern zihinsel söz varlığı yaklaşımları arasında önemli bir tamamlayıcılık bulunduğunu göstermektedir.

Sonuç ve Öneriler

Çalışma, Arapçada zihinsel söz varlığının oluşumunun ses, yazı, morfoloji, söz dizimi, anlam, bağlam ve kültürün karşılıklı etkileşimine dayandığı sonucuna ulaşmıştır. Sözcüksel yeterlilik, sözcüklerin sayısal olarak biriktirilmesiyle değil, sözcükler arasında düzenli ve erişilebilir ilişkiler kurulmasıyla gelişmektedir. Bu nedenle Arapça öğretiminin temel amacı, öğrencilere birbirinden bağımsız sözcük listeleri ezberletmek yerine, işlevsel sözcüksel ağlar oluşturmalarını sağlamak olmalıdır.

Arapçanın kök ve kalıp sistemi, sözcük ediniminin sistematik biçimde geliştirilmesi için önemli olanaklar sunmaktadır. Öğrenciler bir kökü, o kökten türeyen sözcükleri ve bu sözcüklerin anlamsal ilişkilerini birlikte öğrendiğinde yeni biçimleri tanıma ve üretme yeterliliği kazanabilir. Ancak biçim bilimsel öğretim, bağlamsal okuma, söz dizimsel çözümleme ve iletişimsel uygulamalarla desteklenmelidir.

Öğretim programlarında alıcı ve üretici beceriler arasında denge kurulmalıdır. Okuma ve dinleme yoluyla edinilen sözcükler; konuşma, yazma, özetleme, yeniden anlatma ve tartışma etkinlikleriyle etkinleştirilmelidir. Kur'an-ı Kerim, hadis, şiir ve klasik metinlerin öğretiminde ezberleme; anlamlandırma, sözcük çözümleme ve uygulama çalışmalarıyla birleştirilmelidir. Klasik kaynakların yanında çağdaş bilimsel, teknolojik ve kültürlerarası terminolojiye de yer verilmelidir.

Ders kitapları ve müfredatlar her eğitim kademesine uygun sözcüksel hedefler belirlemelidir. Sözcük seçimi yapılırken kullanım sıklığı, kavramsal güçlük, biçimsel karmaşıklık ve öğrencilerin iletişim gereksinimleri dikkate alınmalıdır. Öğretmenlerin zihinsel söz varlığı, Arapça morfolojisi, bağlamsal sözcük öğretimi ve sözcüksel değerlendirme konularında eğitilmesi de önem taşımaktadır.

Gelecekteki araştırmalarda bu kuramsal çerçevenin sınıf deneyleri, sözcüksel karar görevleri, çağrışım testleri, tepki süresi ölçümleri, öğrenci derlemleri ve boylamsal değerlendirmelerle sınanması önerilmektedir. Anadili Arapça olanlarla Arapçayı ikinci dil olarak öğrenenlerin sözcüksel örgütlenmeleri karşılaştırılabilir. Ayrıca dijital medya, yapay zekâ destekli öğrenme ve elektronik sözlüklerin sözcüklerin kalıcılığı, erişilebilirliği ve doğru kullanımı üzerindeki etkileri ampirik olarak incelenmelidir.