

Lexical Bundles in EFL Contexts: A Systematic Review of Research in the MENA Region

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Abstract

Lexical bundles, recurrent sequences of words that frequently co-occur in specific registers, perform an important role in facilitating coherence and fluency in written and spoken English. In spite of various studies on the use of lexical bundles within various contexts, there is an absence of a systematic review of the research on using lexical bundles in the Middle East and North Africa (MENA) region. This systematic review fills that gap by examining how previous studies in the MENA region have described the forms and functions of lexical bundles in different types of communication and how these bundles are used in teaching. The study uses PRISMA guidelines to review findings from studies published between 2017 and 2025, using established databases like Scopus, Google Scholar, Wiley online Library, and ProQuest. Following the protocol of retrieval and filtering, a total of 31 (n=31) journal articles and dissertations were reviewed and data was coded according to distribution by country and year, bundle structure, function, genre and pedagogical implications in a replicable format. The analysis showed that most research on lexical bundles in EFL emerged from Saudi Arabia and Iran, particularly in the last 9 years. Studies tend to focus on structure rather than on function, as well as comparisons between native and non-native use of bundles. Although there is increasing interest in the pedagogical possibilities of bundle studies, this review points to the lack of sufficient studies on L1 Arabic speakers and recommends furthering the research on various aspects of lexical bundles among learners from the MENA region.

Keywords: lexical bundles, systematic literature review, English as a Foreign Language, MENA, Oman

1. Introduction

The study of multiword expressions, commonly referred to as lexical bundles, is an important area of corpus and applied linguistics owing to its role in facilitating fluency and cohesion, and in aiding communication in written and spoken discourse (Biber & Barbieri, 2007; Biber et al., 2004; Conrad & Biber, 2005, Hyland, 2008). Lexical bundles fulfill critical discourse functions, including expressing stance, organizing information, and referring to specific content or attributes while also contributing to fluency and naturalness. Studies (Chen & Baker, 2010; Cortes, 2004) have shown that proficient writers use a range of lexical bundles that are precise and functionally varied. Frequently used by native speakers of English, such bundles are important to second and foreign language learners of English who would benefit from their usage as scaffolding in language learning. However, EFL learners often struggle to recognize, understand, and appropriately use these bundles. (Ädel, & Erman, 2012; Chen & Baker, 2010). This is due, in part, to traditional EFL instruction's emphasis on isolated vocabulary and grammar rules, rather than on phraseological competence. Moreover, the writing and speaking produced by EFL learners often lack the cohesive and idiomatic qualities found in native- speaker discourse, highlighting a gap that has clear pedagogical implications. Although several corpus-based studies have explored lexical bundles in academic writing and speech, many of these are focused on native speaker corpora or on English as a Second Language (ESL) contexts, primarily within Anglophone countries (Cortes, 2004; Hyland & Jiang, 2018; Simpson-Vlach & Ellis, 2010). In contrast, there is a relative scarcity of research examining how EFL learners, especially those learning in non- English-speaking environments, use lexical bundles in productive and receptive skills. Consequently, this study aims to conduct a systematic literature review of research on lexical bundles in an EFL context of the MENA (Middle East and North Africa; see Figure 1) region, a geographical area which has been insufficiently documented so far (Sanosi & Mohammed, 2024, p. 116).

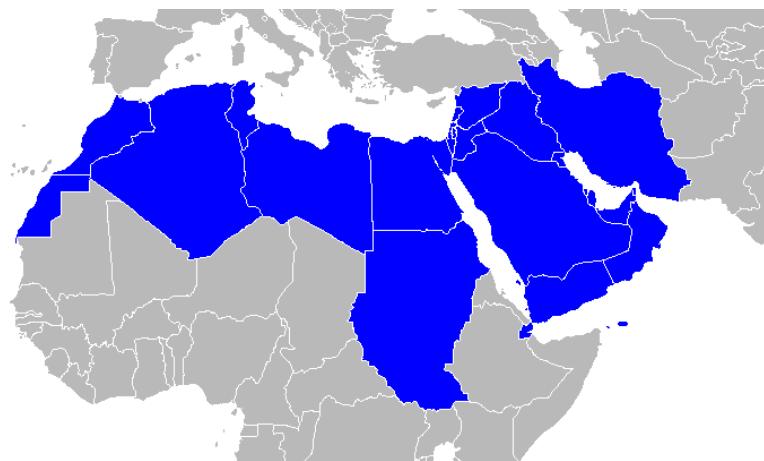


Figure 1. MENA region via Wikimedia Commons

2. Systematic Literature Review

A systematic literature review is a rigorous structured and organized process to identify, filter and critically appraise existing research on a specific area. It follows an established protocol, including predefined criteria to select studies, assess their quality, and examine gaps in the research. The primary requirements of SLR are that they should be exhaustive and reproducible (Cabrera & Cabrera, 2023; Snyder, 2019). As the Cochrane Handbook (2011) states, “The key characteristics of a systematic research are: an explicit, reproducible methodology; a systematic search that attempts to identify all studies that would meet the eligibility criteria” (Higgins, 2008). In Education and in the Humanities, SLR is seen to be more complex than in Health Sciences and Engineering owing to “the different types of publications, or even the absence of a common language among researchers, since it is common for research in these areas to be published in other languages not just in English” (Mangas-Vega et al., 2018, p. 1). Often seen as a follow up to scoping reviews which could be used to determine whether the literature on an area is extensive, whether a full systematic review is necessary and will yield useful information to identify methodology and share findings (Arksey & O’Malley, 2005; Okoli, 2015), a systematic literature review aims to identify gaps and create opportunities for further empirical research (Georgopoulou et al., 2025). It aims to “follow a structured and pre-defined process that requires rigorous methods to ensure that the results are both reliable and meaningful to end users” (Munn et al., 2018). The focus of this paper is to engage in a systematic literature review of the use of lexical bundles in EFL contexts.

The present systematic literature review examines the research within EFL contexts in the past 8 years, i.e., from January 2017 to January 2025. While using Kachru’s (1990) notion of concentric circles to identify EFL [English as a Foreign Language] as the English that is spoken in non-native English-speaking countries, the review focuses specifically on research from the MENA region, which has hitherto not been highlighted. According to OECD (Organization for Economic Co-operation and Development, 2011), MENA comprises Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, the United Arab Emirates, the West Bank and Gaza, and Yemen. This geographical configuration was important for the present study as it enabled the inclusion of both parts of the Arabian and Persian Gulf, while eliminating more frequently researched areas in EFL, including China, Thailand and Malaysia. The time period 2017-2025 was also finalized to enable inclusion of early studies in countries which found no representation in recent years, thereby invisibilizing them.

The central guiding question for this systematic literature review was:

What has been the focus of research on lexical bundles in the MENA region in the past 8 years?

Associated questions include:

- What categories are most commonly investigated in EFL lexical bundle research in the MENA region?
- What pedagogical findings and implications are discussed in EFL lexical bundle studies in the MENA region?

3. Methodology

As outlined by Li et al. (2025) and Dan et al. (2024), an initial scoping of the research area was undertaken by the researchers. The possible timeline, the exact keywords and the database to be investigated, and the time frame for completion of these tasks were first decided in order to obtain an overview of the available research. The study followed the initial procedures to conduct a systematic literature review as outlined by Kitchenham (2004). These include planning, conducting and reporting the existing literature. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines for flowcharts were used to map the literature.

The initial databases from where the sources were retrieved included Scopus, Web of Science, ProQuest, Google Scholar and Open Directory. However, following SLR protocol and after eliminating all repetitions, only Scopus, Google Scholar and ProQuest were retained for the purposes of this study. It was decided to include Google Scholar, unlike previous systematic reviews on lexical bundles (Dan et al. 2024; Li et al. 2025; Nasrabad et al., 2020), as the representation in Scopus pointed to specific geographical locations to the detriment of

other research in peer reviewed journals. Hence, a comprehensive view of the research was not being reflected. Using these databases ensured comprehensiveness, disciplinary width, transparency and replicability as outlined by Arksey & O’Malley (2005) and Page et al. (2020). Other “grey” (Benzies et al., 2006; Mahood et al., 2014) sources which are not typically peer reviewed, such as conference proceedings, conferences, books and book chapters, were not included in the dataset as the rigor of the content is not immediately ascertainable. While initially a timeline of 5 years was decided, the research showed publications prior to 2020 which gave wider geographical representation. It was thus decided to use 2017 as the cut-off date. The process of searching and undertaking further steps was “sequential” (Carcary et al., 2018) as the team first decided on the research question, the databases, the final list of sources as well as the process of analysis. Similar to Dan et al. (2024), a systematic protocol was followed which included documenting databases, keywords, filtering irrelevant sources, and coding them according to established criteria.

PRISMA (2020) was adapted for inclusions, exclusions, and identifications. Figure 2 below describes the phases of the systematic review, as outlined by PRISMA.

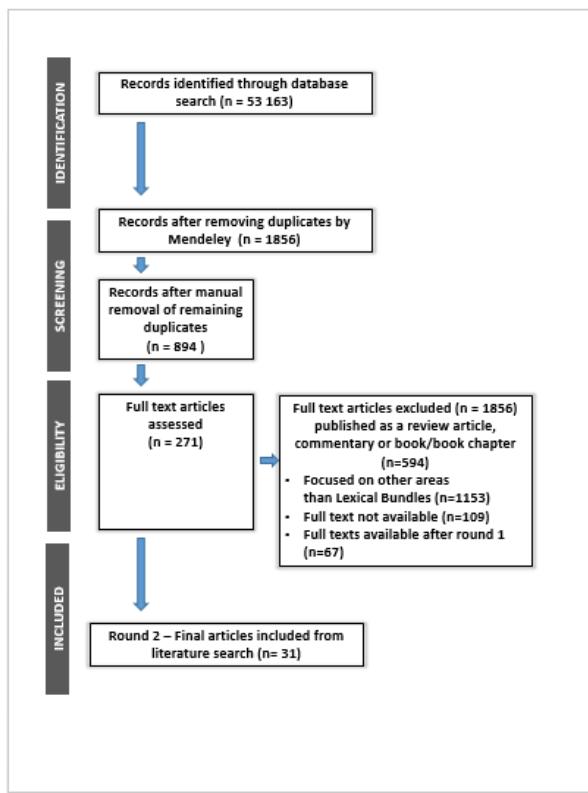


Figure 2. PRISMA (2020) protocol to conduct a Systematic Literature Review (Page et al., 2020)

The resultant procedure is outlined below in Table 1 and attached in Appendix A. The database is given in alphabetical order.

Table 1. Keywords used to identify articles from the database

| Database | Keywords |
|--|--|
| Google Scholar Article title-Abstract-Keywords | ‘lexical bundle’ OR ‘discourse’ bundle’ AND ‘EFL’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘corpus’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘formulaic expressions’ ‘lexical bundle’ OR ‘discourse bundle’ AND a specific MENA country |
| ProQuest Article title-Abstract-Keywords | ‘lexical bundle’ OR ‘discourse’ bundle’ AND ‘EFL’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘corpus’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘formulaic expressions’ ‘lexical bundle’ OR ‘discourse bundle’ AND a specific MENA country |
| Scopus Article title-Abstract-Keywords | ‘lexical bundle’ OR ‘discourse’ bundle’ AND ‘EFL’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘corpus’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘formulaic expressions’ ‘lexical bundle’ OR ‘discourse bundle’ AND a specific MENA country |
| Web of Science Article title-Abstract-Keywords | ‘lexical bundle’ OR ‘discourse’ bundle’ AND ‘EFL’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘corpus’ ‘lexical bundle’ OR ‘discourse bundle’ AND ‘formulaic expressions’ ‘lexical bundle’ OR ‘discourse bundle’ AND a specific MENA country |

4. Filtering of Data

The data was filtered based on the following criteria: date of publication, language of publication, area and country of research, author affiliation as indicated in Table 2 [with first author being from a MENA nation, as stated above]:

Table 2. Details of Data Filtering

| Filtering Item | Filtering type |
|--------------------|---|
| Date | >January 2017 and <January 2025 |
| Language | Languages other than English |
| Subject of study | Only lexical bundles in the Middle East |
| Area of study | English as a Foreign Language |
| Research context | A MENA nation [as outlined above] |
| Author affiliation | A MENA nation [as outlined above] |

The initial search, including Scopus, Google Scholar, Web of Science, and ProQuest, listed 53,163 entries for the search words “Lexical Bundles in EFL”. As MENA is not a category used in linguistics, it was decided to remove EFL and insert specific countries into the search bar. The countries mentioned above as being categorized as MENA were inserted separately, such as Lexical Bundles AND Iran; Lexical Bundles AND Egypt. The resultant search, done repeatedly, was for ‘lexical bundles AND [name of country]’. An initial list of 1856 documents was retrieved and exported to an Excel sheet. All duplicates were then removed using Mendeley and Microsoft Excel and unique references were retained using the title, abstract and full text option. A total of 894 sources remained. These sources were then filtered for inclusion or exclusion. The criteria were based on the focus of the study which was to include research that was based in the MENA region. Institutional affiliations were primarily considered for inclusion, except in one case where the affiliation was in a non-MENA country but the data was based in Iran. Upon repeated searches with different search words like ‘Saudi Arabia’, ‘UAE’, ‘Iran’, 271 entries were filtered. The remaining articles were then removed after a more comprehensive reading of the contents of the article in the next stage.

This brought the total number of research articles on the use of lexical bundles in the MENA region to 64, as indicated in Table 3.

Table 3. Total Number of Sources in Second Round

| | |
|----------------|----|
| Scopus | 16 |
| Web of Science | 3 |
| ProQuest | 18 |
| Google Scholar | 27 |
| Total | 64 |

These sources were then checked again for relevance. Articles which used ‘EFL’ and had the name of a MENA country but were not relevant to the present study were removed. The final total number of sources, including journal articles and dissertations, were 31. They can be divided as outlined in Table 4.

Table 4. Final list of sources for the literature review

| | |
|----------------|----|
| Scopus | 8 |
| Web of Science | 3 |
| Google Scholar | 17 |
| ProQuest | 3 |
| Total | 31 |

1. Coding of Data

Based on the work of Dan et al. (2024), a coding framework was established which categorized the finalized studies using the following classifications: (1) Country of data collection (2) chronological distribution of studies by year (3) research methodologies (4) genre of research focus (5) research corpus and (7) findings of the research. A complete visualized table of sources is provided in Appendix 1.

5. Results of Data

5.1 Country-wise Distribution of Sources

A country-wise distribution of publications on the use of lexical bundles in EFL contexts within the MENA region suggests an overwhelming tilt towards research based in Iran and the Kingdom of Saudi Arabia (KSA). This is in alignment with the studies that show a rise in publications in EFL-related areas in Iran, China, and Saudi Arabia (Chen & Abdullah, 2024). In fact, according to a geographical distribution map by Chen & Abdullah (2024), who studied the number of publications by country, “Iran emerges as the most significant contributor, with 272 publications, accounting for 24.91 % of the overall corpus. China closely follows with 240 documents, and Saudi Arabia ranks third with 78 publications. The remaining seven countries, namely the United States, Spain, Japan, Indonesia, Turkey, Malaysia, and South Korea, have each contributed more than 30 publications to the field” (p. 5). In fact, similar studies which have reviewed geographical distribution (Dan et al., 2024) have shown only Saudi Arabia in the MENA region to have a sufficient number of publications on research bundles, with Li et al. (2025) stating that Iran and Egypt can be seen to be “moderate users” (p. 5) of corpus-based instruction research. The concentration of lexical bundle research in Saudi Arabia and Iran can be attributed to a combination of educational, linguistic, and policy-driven factors that make these countries fertile ground for applied linguistics inquiry. With their L1 Arabic and Persian respectively, Saudi Arabia and Iran have long worked on the challenges of the acquisition of English in

its various forms. Teaching and using lexical bundles at various levels, from primary schools to higher education and research, has been a consistently developing area of linguistic focus. Both countries also have a long standing and well-established research culture in linguistics and applied linguistics, with access to higher education opportunities in graduate programs that encourage and facilitate EFL studies. This is further evidenced in the number of conferences and other related areas of learner corpora. Other countries in the region, such as Algeria, Morocco and Oman, are represented by single publications on lexical bundles, pointing to opportunities for further research in this area from corpus and pedagogical perspectives. Figure 2 below is a visual representation of this country-wise distribution:

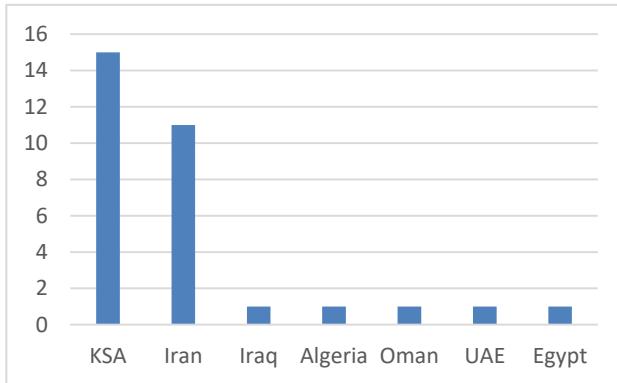


Figure 2. Country- wise distribution of publications on lexical bundles [2017 – 2025]

5.2 Chronological and Journal Distribution of Publications

The distribution of publications per year is given in Figure 3. As indicated, it can be seen that there are very few studies between 2017 and 2020 on exploring lexical bundles in EFL contexts in any country in the MENA region. This trend picks up after 2020, with the maximum number of publications in 2023. This pattern shows an increasing interest in sustained studies on bundle research, peaking and sustaining in 2023-2024. This upward trend reflects a growing recognition of the importance of investigating lexical bundles and their use within EFL contexts in the MENA region, although it has still not sufficiently become a central concern in relation to other sociolinguistic aspects of EFL studies.

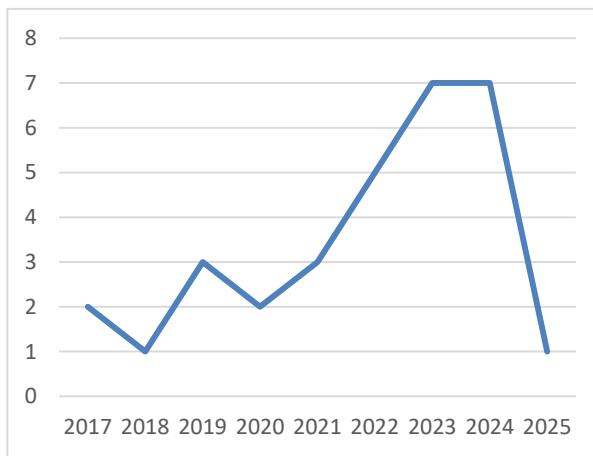


Figure 3. Number of publications on lexical bundles per year

The research has been published in a variety of journals, primarily focusing on Language, Education, and Second and Foreign Languages. There is representation of *Journal of English for Academic Purposes* (3), *Theory and Practice in Language Studies* (2), *Journal of Language and Education* (2) and *Russian Journal of Linguistics* (2) among others, including *TESOL International Journal*, *Language Learning in Higher Education* and *Arab World English Journal*. All journal publications are peer reviewed and the dissertations on ProQuest are from renowned universities.

5.3 Methodological Division of Sources

Lexical bundles are investigated using a variety of concordance software and methods as outlined by Biber et al. (2021), who initially used Wordsmith, and Anthony (2006) who developed AntConc and LancBox developed by Lancaster University. In the sources investigated, Anthony's (2024) Antconc (3.3.2 through to version 4.1) was the most popular software (Saadatara et al., 2023; Shahraki & Astakati, 2024), followed by LancBox 6.0 (Jabeen & Alsmari, 2023), and Wordsmith 4. 0 (Alkhasawneh, 2024). For text analysis, BNC 2024 (British National Corpus) was also used, followed by n-grams in SketchEngine for analysis (Alhusban & Vijaykumar, 2021;

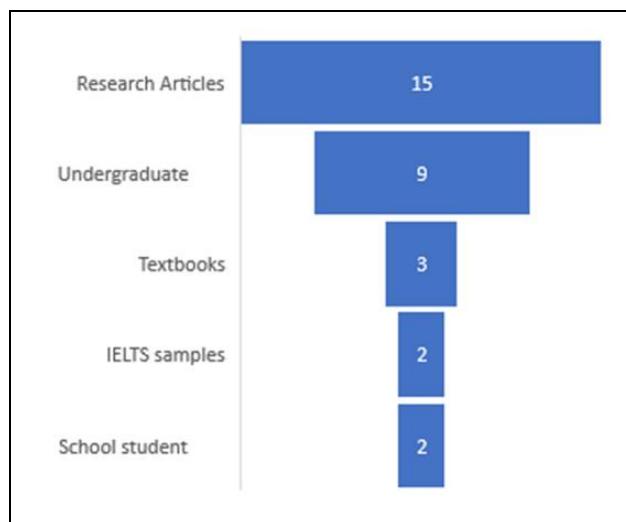
Alzahrani, 2020; Mirzaei et al., 2023). These tools were used to analyze frequency as suggested by Biber (2004). They used frequency thresholds—typically requiring a bundle to occur a minimum number of times per million words—to filter for significance. Most studies used the established corpus work of Biber et al.'s (2021), Biber & Barbieri's (2007) and Chen & Baker's (2010) structural variation, and Hyland's (2008) functional variations. Other methods include mixed approaches, particularly for research which investigated the pedagogical possibilities of lexical bundles. This consists of quasi-experimental groups, establishing an experimental and control group, along with pedagogical interventions (Saadatara et al., 2023). These usually follow descriptive and exploratory work, particularly in cases where the focus is on the IELTS exams and its writing component.

Corpus of research

Most research was based on 4-word bundles (Alhusban & Vijaykumar, 2021; Alkhasawneh, 2024; Hadizadeh & Jahangitian, 2022; Sanosi, 2022; Shahraki & Astakati, 2024; Shirazizadeh & Amirkazlani, 2021) although some studies also focus on 3-word bundles (Alhusban & Vijaykumar, 2021). 3- to 6- word bundles were analyzed by Mirzaei et al. (2023). This is in keeping with Hyland's (2008) comment that 4-word bundles are most commonly used in academic writing: "I decided to focus on 4-word bundles because they are far more common than 5-word strings and offer a clearer range of structures and functions than 3-word bundles" (p. 8). A total of 500 000 (Estaji & Montazeri, 2022) words to 5 million words (Alasmari, 2022) have been used for corpus analysis. The range of studies have used 250000 tokens (Sanosi, 2022) to 187889 tokens (Alhusban & Vijaykumar, 2021).

The data for the corpus was derived from various sources, such as undergraduate writing, faculty and graduate student research articles, discipline-specific textbooks, school student writing as well as short compositions such as e-mails. As can be seen from Table 5 below, the number of publications on research articles (including PhDs and faculty publications) exceeds the number of undergraduate and school student writings. One source (Sanosi, 2022) compares data of writing by learners and scholars. This data contradicts the findings of Dan et al. (2024, p. 200) who found that "most studies (n=15) evaluated undergraduate theses, while the remainder assessed Master theses (n=7) and PhD theses (n=6)". The division of research articles by the genre from where the corpus is generated is given in the graph below:

Table 5. Corpus generated by genre



Studies also compare native and non-native English writing (Alhusban & Vijaykumar, 2021; Azadneia, 2023; Hadizadeh & Jahangitian, 2022; Sanosi, 2022; Shahraki & Astakati, 2024; Vaziri, et al., 2024). Most research shows that native English speakers tend to use a larger variety of lexical bundles (Sanosi, 2022) while non-native speakers use a quantitatively larger number but a smaller range (Hadizadeh & Jahangitian, 2022). Jabeen and Alsmari (2023), and Jabeen and Almutairi (2023), in a comparative study of the use of hedges and boosters among Saudi and Australian PhD students, found that Saudi writers tended to use hedges instead of boosters, as opposed to Australian native English speakers who used more boosters. Of the functional bundles, text- oriented bundles were the most common, rather than research-oriented or participant- oriented (Shahraki & Astakati, 2024). Another variation of data was the distinction between EFL and ESL writers (Azadneia, 2023) where it was found that writers with more exposure to native language contexts, such as graduate students studying in English speaking countries, showed sufficiently varied use of lexical bundles than those who remained within an EFL context. Hadizadeh and Jahangitian (2022) and Shahraki and Astaraki (2024), however, found that non-native Iranian speakers of English used a wider and larger number of lexical bundles. They attribute this to academic writing courses that focus on lexical phrases and bundles, as they typically tend to undergo multiple writing sessions and workshops as academics (Hadizadeh & Jahangitian, 2022, p. 65). Qualitatively, the bundles often vary with a change in context. Alhusban and Vijaykumar (2021) found that non-native English speakers more often used participant-oriented bundles, such as "I have to agree" and "It is clear", rather than those found in the BAWE (British Academic Written English) corpus which includes, in a similar category, bundles like "it is difficult to" and "it may be possible" (p. 20). They also found an absence in the use of the passive voice in the LCAW (Learner Corpus of Academic Writing).

In the study in the MENA region, 2 corpora have thus far been produced: ASAWE (Arab Scholars' Academic Written English Corpus) created by Mohammed and Sanosi (2024) who produced a substantive corpus of academic English as used by Arabic L1 speakers, and OCAW (Omani Corpus of Academic Writing) created by Mathew and McCallum (2024), a corpus of English as used by Business and Engineering students in Oman.

The themes under which research in the MENA region can be categorized are summarized in Table 6:

Table 6. Summary of findings on studies on Lexical Bundles usage

| Theme | Example Studies |
|--|--|
| Native vs. non-native use of lexical bundles | Hadizadeh & Jahangirian (2022); Sanosi (2022) |
| Hedges vs. boosters | Jabeen & Alsmari (2023); Jabeen & Almutairi (2023) |
| Functional bundle preferences | Shahraki & Astakati (2024) |
| EFL vs. ESL exposure | Azadneia (2023) |
| Iranian EFL variation | Hadizadeh & Jahangirian (2022); Shahraki & Astaraki (2024) |
| Context-dependent qualitative differences | Alhusban & Chintalapalli (2021) |
| Voice usage | Akeel (2024) |
| Development of MENA region corpora | Mohammed & Sanosi (2024); Mathew & McCallum (2024) |

5.4 Genre and Discipline Specific Sources

As various works (Chen & Baker, 2010; Karabacak & Qin, 2013; Liu & Chen, 2020) have previously suggested, lexical bundles are evident across different genres and levels. Similarly, within the MENA region, a variety of genres have been explored to identify function, variety, and structure of writing in English. This includes academic research papers (Alkhasawneh, 2024; Basim, 2020; Jabeen & Alsmari, 2023) and Masters theses (Hadizadeh & Jahangirian, 2022; Rezoug & Vincent, 2018). More specific focus on introductions in academic articles is done by Jabeen and Alsmari (2023), who also divided the research informants in terms of gender. Shirazizadeh and Amirkazl (2021) engage in a comparative intradisciplinary study between theses, articles, and textbooks of applied linguistics to consider the differences between the various genres. Their study found substantial differences between all the genres, with textbooks using the maximum number of common bundles. Albaqami (2022) used undergraduate opinion pieces in Saudi e-mails, in a pre- and post- test scenario, concluding that the input on the use of bundles over a period of 8 weeks substantially improved their use in this specific genre. Alhusban and Vijaykumar (2021) used 4 genres of paragraph writing, including opinion, argumentative, cause and effect, and compare and contrast using Biber et al. (2002), Hyland (2012) and Tribble's (2008) functional framework. Textbooks, including English language textbooks (Alzahrani, 2020) as well as subject-specific books such as Mathematics (Alasmari, 2022) and Psychology (Alasmari, 2025) are also investigated for their use of bundles. Alasmari (2022, 2025), in both these publications, concluded that subject specific textbooks needed to use a wider variety of lexical bundles to better communicate subject material to learners, while providing data-based lists which could be used for discipline-specific writing. Alzahrani (2020) compared Saudi EFL textbooks with British textbooks of the same level to see whether the EFL books replicated authentic English use through the use of lexical bundles.

Studies have also been conducted across multiple levels, including school students, undergraduate learners of various disciplines and different stages of English competence, as well as graduate students and academic researchers such as faculty members. Mohammed & Sanosi (2024) compared academic writing by Saudi writers against British scholars. Using the Arab Scholar Written English Corpus (ASWEC) and BAWE for levels of formality in academic writing, they found that Arab writers tended to use mainly conjunctions and contractions while British scholars tended to use a variety of features of informality from the corpus. Studies on using lexical bundles in oral vs written registers (Alasmari, 2025) have found that spoken formats use a larger number of types of lexical bundles. (Alasmari, 2025) found that oral lectures used more stance bundles while textbooks had more referential bundles. This data is summarized in Table 7:

Table 7. Studies based on genres in Lexical Bundle Research in MENA region

| Genre | Studies |
|--|--|
| Research articles, introductions, theses, dissertations | Alkhasawneh (2024); Jabeen & Alsmari (2023); Hadizadeh & Jahangirian (2022); Rezoug & Vincent (2018); Shirazizadeh & Amirkazl (2021) |
| Textbooks (English, Math, Psychology); discipline-specific materials | Alzahrani (2020); Alasmari (2022, 2025); Alasmari (2025) |
| Opinion pieces, argumentative, cause-effect, compare-contrast paragraphs; undergraduate and school-level writing | Albaqami (2022); Alhusban & Chintalapalli (2021) |
| Academic writing by Arab scholars vs. British scholars | Mohammed & Sanosi (2024) |
| Spoken vs. written registers | Alasmari (2025) |
| Academic article introductions divided by gender | Jabeen & Alsmari (2023) |
| Theses, research articles, textbooks (Applied Linguistics) | Shirazizadeh & Amirkazl (2021) |
| Saudi EFL textbooks vs. British textbooks | Alzahrani (2020) |

5.5 Pedagogical Implications of Lexical Bundles in EFL AND IELTS

Most studies found that a systematic engagement with lexical bundles substantially improved learner usage and performance in both written and oral registers (Baktash et al., 2024). A more experimental pre- and post-test comparative study was that of Mirzaei, et al. (2023, p. 1) who considered whether a multisensory input of sources would enhance bundle usage. According to them, "multiple (captioned) audiovisual

sensory stimuli" helped in the retention and usage of lexical bundles across time despite the further addition of an audiovisual component to the first stages of voice, picture and text. Some also used specific linguistic features of academic writing and compiled specific corpora (Akeel, 2024; Ghani, 2017; Khalil, 2023; Sanousi, 2022). Alhusban and Vijaykumar (2021) used the learner corpus of academic writing (LCAW). By establishing specific corpora, these studies found that their use could extensively help in writing for non-native contexts across all levels, including researchers and faculty members. Rashtchi and Mohammadi (2017) and Rezoug and Vincent (2018) examined writing by students in Iran and Algeria respectively. Albaqami (2022) found that training students on the use of lexical bundles could "lessen the potential negative transfer of the mother language, therefore refining writing in terms of collocations, grammatical structures, and discourse coherence" (p. 91).

Another important platform where a systemized teaching of lexical bundles was seen as being advantageous was in the IELTS exam. Various studies (Rafieyan et al., 2024; Saadatara et al., 2023) showed that "an explicit functional awareness-raising approach while providing metalinguistic information on LBs can be pedagogically beneficial" (p.14). Their studies showed that the more competent users of lexical bundles often used them in more structures and functions. Mathew & McCallum (2024) investigated the impact of training capstone year students to use lexical as well as p-frame (phrase bundles) over a period of a year and found that learners often moved away and beyond the instructions given by teachers. They also found that students from different disciplines used the bundles in different ways, particularly in the abstracts.

6. Discussion of Data

Almost all the research showed that EFL writers in the MENA region exhibited limited use of lexical bundle awareness and that teaching of such bundles was comparatively limited at each level. The analysis reveals several trends. Structurally, EFL learners tend to favor simpler bundles (noun phrase + of) and underuse complex sequences. Functionally, research-oriented and text-organizing bundles are more prevalent than stance or engagement bundles, particularly in academic writing. The reasons for this are not clear in the research, although speculation is based on learners' confidence and practice. Learners often rely on formulaic expressions taught in classrooms, resulting in limited functional variation. More experimental research may point to tangible reasons for this pattern.

Research on the use of lexical bundles in the MENA region largely concludes that non-native English language speakers use a narrower range of bundles than native speakers at the graduate and professional levels although their functional use is not different. While this data is not always confirmed, it is evident that language instructors in EFL contexts need to share more lexical bundle usage with their learners at every level. In fact, even textbooks are seen to be using a limited range of bundles, which creates issues of language fluency across the board in the MENA region. The fact that L1 Arabic and Persian speakers tend to use more structural bundles than stance bundles indicates a large gap in the writing fluency of non-native English language users in this region, which implies difficulty in terms of finding an individual voice. This has repercussions as learners write at more complex levels.

All studies show that an increase in input of bundles through teaching can result in increased fluency with bundle usage. Gradual lexical bundle usage is recommended. The implication of this is vast in terms of pedagogical possibilities. Clearly, there is a gap between the expectation of language use in learners and the scaffolding of such learning in writing. This is a tendency which needs to be examined from multiple angles. Immersion is one such possibility, as students who are exposed to a native language context are more proficient in their use of a variety of lexical bundles, as most studies show. While immersion may not always be possible, offering other opportunities such as encouraging reading in a variety of genres and levels could make up for the lack of exposure to other forms of authentic language use.

These findings evince the explicit necessity for systematic instruction in lexical bundles, with consistent focus on their types, stance and reference functions, linguistic precision, and context applicability. In this regard, an enhanced curriculum should integrate analysis of annotated models of writings that orient students with various patterns of stance and reasoning. Informed alignment that links writing courses and discipline-related courses across undergraduate and graduate programs is also a required curricular development. Guided classroom practices, which integrate reading activities that compare patterns of writings and feature focused feedback on lexical bundles, will effectively contribute to an enhanced curriculum design. Training of teachers in corpus-based pedagogy, feedback approaches and techniques, and cultural awareness will definitely propel a more adequate and diverse use of lexical bundles.

Pedagogical practices must incorporate guided, evidence-based approaches that draw on the analytical capacities of corpus tools such as COCA and BAWE. Classroom activities allow students to observe authentic patterns of academic discourse. Corpus-based learning enhances linguistic awareness and fosters learner autonomy. Comprehensive teacher training in corpus literacy is essential to create an environment in which lexical bundles are taught in appropriate contexts. The combination of curricular alignment, corpus-informed pedagogy, and specialized teacher preparation can offer a framework which cultivates learners' academic written communication.

There are positive attitudes towards the teaching of lexical bundles at every level. Lexical bundle research is becoming increasingly standardized, corpus-driven, and pedagogically oriented. The field relies on a consistent set of analytical tools and frameworks, which strengthens comparability across studies, while also evolving to evaluate how they can improve language teaching and assessment outcomes. Multimodal foci of lexical bundle usage have been found to be effective to a certain extent. Offering opportunities to interact across modalities outside the written format could encourage fluency in the use of bundles, although there is no research on this currently.

7. Conclusion

The most glaring gap in the research of lexical bundles in the MENA region is the underrepresentation of studies from many countries in the

region. This is surprising considering the focus on research in many educational institutions, particularly in the Arabian Gulf, which actively promote research and dissemination. This is, in itself, an anomaly to be corrected through collaborations and enhanced longitudinal and long-term research, which could engage researchers with academics and teaching professionals from different levels. This identified gap invites more multi-regional and multi-institutional corpus studies that cover Arab and Middle Eastern countries, address undergraduate and graduate writings, and involve collaboration of several disciplines such as STEM, Education, Humanities, and Social Sciences. Such proposed collaboration will expand the identified local writing patterns, improve the quality and relevance of their analysis, and enhance curricular reform.

A large noticeable feature in this research is the lack of focus, even in the last 2 years, on the intersection of lexical bundle research with emerging technologies, particularly Artificial Intelligence. This is a widening area that presents many opportunities for exploring and investigating how AI-driven tools can assist or abet appropriate usage of lexical bundles. As AI tools are known for their potential to offer personalized learning models, this will become a rich area of research. For instance, the integration of Natural Language Processing (NLP) tools and Machine Learning algorithms can help identify the patterns and collocations of lexical bundles. AI-assisted learner profiles are of pedagogical value for they facilitate automated feedback and generate personalized learning resources. Moreover, AI-enhanced corpus annotation can underpin the semantic and pragmatic annotation of lexical bundles. As AI tools are known for their potential to offer personalized and diverse learning models, this will become a rich area of research.

The present systematic literature review explored the MENA region specifically to identify regions which are not frequently identified in EFL literature. However, the study is limited in its scope as it did not address studies from a larger target area, nor did it identify non-academic sources. In spite of the range, variety, depth, and scope of present research on lexical bundles in the MENA region, the possibilities for further research remain fertile, particularly with wider representation from more countries within the region. This invites participation in collaborative projects on creating a corpus, investigation of pedagogical possibilities of using lexical bundles in a variety of settings, and exploration of long-term outcomes, disciplinary variation as well as technological integration.

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Dr. Sandhya Rao Mehta conceptualized the article and its focus. Dr. Majda Atieh contributed to the text and writing of the article. Dr. Gerard Dineen reviewed the article and worked on the organization and language.

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Appendix:

Summary of sources used in the study

| Author | Year | Title | Region | Genre | Methodology | Findings |
|--------------------------------------|------|---|--------|---|--|--|
| 1. Alasmary, A. | 2022 | Academic lexical bundles in graduate-level math texts: A corpus-based expert-approved list | KSA | Graduate-level mathematics texts | Corpus-based | Structural forms are clausal and most bundles are research-oriented |
| 2. Alasmary, A. | 2025 | Lexical bundles in psychology lectures and textbooks: a contrastive corpus-based study with implications for academic writing | KSA | Psychology lectures and textbooks | Comparative corpus-based | LBs are differentiated based on register. |
| 3. Sanosi, A. B. & Mohammed, A.S.E. | 2024 | ASAWEC: towards a Arab corpus of Arab Scholars' world academic written English | | Academic writing by scholars | Corpus compilation | Developed a corpus of Arab scholars' English writing to be used by scholars. |
| 4. Akeel, E. | 2024 | Exploring the functions of lexical bundles in undergraduate opinion paragraphs for pedagogical use The Role of Lexical Chunks in Promoting English Writing | KSA | Undergraduate opinion paragraphs | Compilation of writing Tasks. | Identified a variety of functions of lexical bundles in student writing. |
| 5. Albaqami, R. | 2022 | Competence among KSA Foreign Language Learners in Saudi Arabia | | English as a foreign language writing | Experimental Pre and Post Test | Providing lexical chunks improves English writing competence |
| 6. Alhusban, H. A. & Vijayakumar, C. | 2021 | Lexical bundles in Saudi KSA EFL student writing: A study of learner corpus | | EFL student writing | 534 student essay corpus analysis | Students primarily used research and participation oriented bundles. |
| 7. Alkhasawneh, F. M. | 2024 | A corpus-based analysis KSA of the lexical bundles use in academic discourse | | Academic discourse | 171 undergraduate Research papers Corpus-based | Students used referential and discourse bundles the most. |
| 8. Alzahrani, A. ... | 2020 | The structure and function of lexical bundles in Communicative High School Saudi EFL textbooks | KSA | EFL Textbooks | Textbook Corpus | Saudi textbooks use lower number of LBs than reference books. |
| 9. Alamri, B. | 2020 | A Comparative Study of Saudi and International Journals of Applied Linguistics: The Move– Bundle Connection Approach | KSA | Applied linguistics journals | Corpus-based | No difference in the use of structural and functional lexical bundle usage. |
| 10. Azadneia, M. | 2023 | A corpus-based study of the use of lexical bundles in EAP texts by Iranian EFL and ESL learners | Iran | English for Academic Purposes (EAP) Textbook Corpus-based texts | | EFL learners use fewer LBs as opposed to ESL learners. |
| 11. Baktash, N., Kaivanpanah, S., | 2024 | Promoting authorial voice expression in academic | Iran | EFL learners' academic | Pre- and Post- intervention | Implicit and explicit instruction impacts authorial |

| | | | |
|--|---|--|---|
| & Alavi, S. M. | writing of EFL learners through implicit and explicit instruction | writing | voice through the use of lexical bundles |
| 12. Basim, A. | 2020 | A comparative study of Saudi and international journals of applied linguistics: The move-bundle connection approach | Linguistics Journals Corpus of LBs Structure and Function are both used in academic journals of KSA writers |
| 13. Estaji, M. & Montazeri, M. R. | 2022 | Native English and non-native authors' utilisation of lexical Iran bundles: A corpus-based study of scholarly public health papers | Public health research articles Corpus-based Non-native users of English used more 4-5- and 6- word bundles. |
| 14. Ghani, Ali Abdul Ilah | 2017 | The role of using lexical bundles on the development of Iraq proficiency of Iraqi EFL university students | Undergraduate student writing Pre- and Post- intervention Instruction helps in developing usage of LBs. |
| 15. Hadizadeh, A. & Jahangirian, S. | 2022 | Lexical bundles and disciplinary variation in master theses | Master's theses 4-word Corpus-based Iranian Masters students used more variation in writing than native English students. |
| 16. Hajizadeh, R., Sahragard, R., & Ahmadi, A. | 2018 | How can ELF teachers use lexical bundles to Iran promote English L2? | Lectures LB use in oral contexts Providing samples and training helps students with the use of LBs. |
| 17. Jabeen, I. & Alsmari, N. | 2023 | Phraseological Expressions: Gender-Based Corpus KSA Analysis of EFL/ESL Academic Research Articles | Academic research articles Gender-based corpus analysis No significant variation in gender usage of LBs |
| 18. Khalil, A. A., & Abu-Ayyash, E. A | 2023 | Lexical cohesive devices and English writing UAE quality | EFL University 56 students review essays Writing quality improved with use of LBs. |
| 19. Mathew, P. & McCallum, L. | 2024 | A corpus-based analysis of rhetorical moves and p-frames in an Omani learner corpus of research project abstracts | Research project abstracts Corpus compilation Analyzed rhetorical moves and p-frames in user abstracts |
| 20. Mirzaei, A., Azizi Farsani, M., & Chang, H. | 2023 | Statistical learning of L2 lexical bundles through unimodal, bimodal, and multimodal stimuli | L2 learner texts Experimental- student writing Usage and retention of lexical bundles enhanced with multimodal input. |
| 21. Mohammed, A. S. & Sanosi, A. B. | 2024 | Informality in academic English texts by Arabic and British scholars: A corpus study | Arab and United Kingdom Academic texts BAWE Corpus-based British scholars used a broader variety of LBs. |
| 22. Nasrabad, P., Shirvan, E. M., & Golparvar, S. E. | 2020 | Exploring lexical bundles in recent published papers in the field of applied linguistics | Applied linguistics research articles Sketch engine based study of corpus Frequently used lexical bundles in published papers have not substantially changed. |
| 23. Nour, D. | 2021 | Corpus-based Instruction and the Acquisition of Functional Lexical | EFL school learner writing Corpus-based instructional study Functional lexical bundles are extensively used by young EFL learners. |

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|-----|---|--|---|---|
| | | Bundles: EFL Egyptian School Learners' Perspective | | |
| 24. | Rafieyan, M., Salahshour, F., & Davatgari Asl, H. | 2024 | The Utility of Lexical Bundle Teaching for Iran Improving ESP Learners' Writing Ability on IELTS | IELTS writing Pre-post-testing and Lexical bundle instruction improves IELTS writing ability |
| 25. | Rashtchi, M. & Mohammadi, M. A. | 2017 | Teaching lexical bundles to improve academic writing via tasks: Does the type of input matter? | Academic writing Pre-post-testing and Cloze tasks help to improve LB usage. |
| 26. | Rezoug, F. & Vincent, B. | 2018 | Exploring lexical bundles in the Algerian corpus of Algeria engineering Bundles to beat the band in high-stakes tests: Pedagogical applications of an exploratory investigation of lexical bundles across band scores of the IELTS writing component | Engineering research articles Frequency corpus Corpus in Learners with higher IELTS proficiency used a larger variety of LBs. |
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