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**| RESEARCH ARTICLE**

## Scope, Strengths and Limitations of EFL Vocabulary Research in Iraq: A Country in Focus

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**| ABSTRACT**

Examining previous research plays a crucial role in informing policy decisions, educational policies, and researchers about present conditions and future endeavours. While the landscape of English as a Foreign Language (EFL) vocabulary research in Iraq remains largely unexplored, this study undertakes a systematic review of existing research to delineate its scope, strengths, and limitations. An analysis of 24 studies meeting established criteria is categorized into four research strands: (1) vocabulary learning enhancement, (2) vocabulary learning strategies, (3) evaluation of vocabulary teaching techniques, and (4) vocabulary learning achievement. Each strand is examined for its characteristics, research designs, strengths, and limitations. Findings reveal that while research in the first strand meets sampling requirements, it often lacks educational foundations, fails to track actual usage, employs inadequate effectiveness measurements, exhibits questionable learning outcomes, faces uncontrollable variables, and raises concerns about applicability. Studies in the second strand primarily target university students, sometimes overlook sampling requirements, and neglect participants' backgrounds and personal variables. Research in the third strand adequately recruits participants but focuses solely on pre-university education, with gaps in research design regarding treatment duration. Studies in the fourth strand exhibit shortcomings in achievement measurement methods. Recommendations and suggestions for future research, derived from this systematic review, aim to address identified gaps and enhance the quality of EFL vocabulary research in Iraq.

**| KEYWORDS**

Vocabulary, EFL vocabulary research, vocabulary learning strategies, Iraq

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### 1. Introduction

Before the emergence of communicative language teaching, vocabulary was often overlooked and considered merely a by-product of acquiring other language skills (Zimmerman, 1997). However, with the shift towards prioritizing meaning and communication, as well as valuing fluency over accuracy, vocabulary has assumed a central role in foreign language learning. This renewed recognition of its importance has led to a surge in vocabulary studies within language learning and education. Particularly noteworthy is the development of language teaching methods that acknowledge the limitations of earlier conceptualizations of vocabulary acquisition (Richards, 1976). Consequently, research has delved into various aspects of vocabulary. Theoretical research has explored defining vocabulary, its types, depth, breadth, and knowledge (Schmitt, 2000; Nation, 2012; Carter, 2012; Meara, 2009; Qian & Schedl, 2004). Applied research, on the other hand, has examined learners' strategic approaches to vocabulary learning (Gu & Johnson, 1996; Nation, 2013; Schmitt, 1997), instructional methods (Coady, 1997; Krashen, 1989; Oxford, 1989; Stratton, 2022), factors influencing vocabulary acquisition (Segalowitz & Frenkiel-Fishman, 2005; Granena & Long, 2013; Gardner & MacIntyre, 1991; Luniewska et al., 2022; Laufer, 1997), and its correlation with the four language skills (Dong et al., 2020; Laufer & Nation, 1995; Koizumi & In'nami, 2013; Brown et al., 2008). Thus, the research focus has shifted from simply understanding the role of vocabulary in second language acquisition to exploring optimal methods for its acquisition, instruction, and enhancement.

Despite the extensive research on vocabulary in various EFL contexts, some remain underexplored, including Iraq. Despite being identified as one of the least proficient English-learning countries (TOEFL ETS, 2021, Pearson, 2021), research on EFL language education in general and vocabulary learning in particular within the Iraqi context is scant. Therefore, this study aims to synthesize existing research, identify its types and focal points and strengths, elucidate any limitations, and pinpoint areas and gaps for future research.

## **2. Vocabulary and second language acquisition**

Vocabulary acquisition occupies a fundamental role in second language learning, garnering considerable attention from researchers and language learning practitioners (Cameron, 2001). Its significance in the language learning process is underscored by Wilkins (1972, p. 111), who aptly notes, "without grammar, very little can be conveyed, but without vocabulary, nothing can be conveyed." Indeed, the size of vocabulary knowledge directly correlates with learners' competence and confidence in communicating in the target language (Ur, 2022). Moreover, a robust vocabulary facilitates proficiency across the four language skills—speaking, listening, reading, and writing (Richards & Renandya, 2002). Extensive research has consistently revealed a positive correlation between the size of vocabulary knowledge and proficiency in language skills (Johnson et al., 2016; Hilton, 2008; Richards, 2015; Bonk, 2000; Richards & Renandya, 2002). Conversely, inadequate vocabulary knowledge not only impedes performance across language skills but also diminishes learners' motivation to engage with learning opportunities (Lindstromberg, 2004). Recognizing these implications, researchers, educators, and policymakers emphasize the pivotal role of vocabulary in shaping language learning materials and curricula.

Beyond its instrumental role in language proficiency, vocabulary is indispensable for effective communication in the target language, as a limited vocabulary can obstruct comprehension and interaction. Furthermore, its significance extends to academic success, with robust vocabulary knowledge correlating strongly with academic achievement (Loewen & Ellis, 2004; Roche & Harrington, 2013; Alsaifi, 2023). Notably, research demonstrates that vocabulary proficiency significantly influences reading comprehension for both native and non-native speakers, with an extensive lexicon facilitating text comprehension (Joshi & Aaron, 2000; Kiefer & Box, 2013; Braze et al., 2016). Given these multifaceted impacts, vocabulary has earned a distinguished status within language education systems, recognized for its transformative potential for students and language learners alike.

## **3. Purpose and background**

Systematic reviews serve as comprehensive efforts to examine and consolidate existing research on a specific topic, aimed at addressing particular research or review questions (Andrews, 2005). These reviews hold a distinct significance within the realm of educational research, transcending the limitations of individual studies to reveal patterns and variations across related research endeavours. This synthesis is invaluable for educational policymakers and practitioners seeking informed insights (Davies, 2000; Gough et al., 2012). As the volume of research continues to expand, systematic reviews have emerged as a favoured approach to manage, integrate, and summarize this wealth of knowledge (Cooper, 2010; Polanin et al., 2016).

In light of these advantages, the present study seeks to conduct an evidence-based analysis of existing research on EFL vocabulary within the context of Iraq. The study aims to identify gaps and areas necessitating further investigation while elucidating the scope and types of available research and their respective strengths. Ultimately, the overarching objective is to equip policymakers, educational bodies, and researchers with evidence-based insights into the nature of existing research, thereby facilitating informed decision-making processes.

## **4. Research questions**

The present study addresses the following questions:

1. What are the main strands of EFL vocabulary research in Iraq and what is the focus of research within each strand?
2. What are the characteristics, strengths, and limitations of EFL vocabulary research within each of the identified strands?

## **5. Methodology**

This research employs a research synthesis design to assess the quality of the studies under consideration and to derive conclusions that inform recommendations for policy and practice (Cohen et al., 2011). Following the principles outlined by Evans and Benefield (2001) for conducting systematic reviews, several steps have been undertaken in this study. First, research questions have been formulated to guide the inquiry. Second, a comprehensive and systematic search has been conducted using online databases. Third, clear selection criteria have been established to determine the inclusion and exclusion of studies, aiming to minimize bias. Only research published in peer-reviewed journals has been included, while studies from suspicious or predatory journals have been excluded. Additionally, only research available online has been considered. Given the goal of providing a comprehensive review of EFL vocabulary research, studies of all designs, including survey, experimental, and quasi-experimental, have been included. Fourth, a review protocol has been developed to describe and evaluate the included studies. This involves the creation of a screening and coding scheme for the relevant themes, which will be presented in a table format within each research strand. Subsequently, a narrative review will be conducted to synthesize and connect findings across studies (Suri, 2020).

## 6. Data collection and inclusion/exclusion criteria

A thorough search was conducted across multiple databases, including Iraqi Academic Scientific Journals, Google Scholar, Web of Science, Scopus, and Google search engine. The search utilized keywords such as "EFL vocabulary research in Iraq," "vocabulary studies in Iraq," "Iraqi EFL learners' lexical competence," and "Iraqi EFL learners' word knowledge." Initially, the search focused on titles and keywords, followed by scanning of abstracts to pinpoint relevant studies accurately. No specific time range was stipulated for the search, as the aim of the study is to provide a comprehensive and exhaustive review of relevant literature. However, it is anticipated that most research appearing in the search databases will be from 2010 onwards, given that online publication in international journals is a relatively recent development in Iraqi academia, with much of the earlier research published in print format.

Regarding inclusion criteria, the study encompassed any research investigating EFL vocabulary within the context of Iraq, irrespective of research design or targeted education level. However, certain exclusion criteria were applied to filter relevant studies. Firstly, only papers published in English were considered. Secondly, only papers appearing in peer-reviewed journals were included, thereby excluding theses and papers from commercial and predatory journals.

## 7. Data analysis and discussion

Following the data collection phase, a total of 32 studies were identified for review. The analysis proceeded in two stages. Firstly, the main strands of published research papers were identified, and secondly, a coding system was developed to delineate focus areas for the review process. A deductive strategy was employed during the coding process for each strand (Hennink et al., 2020). To minimize biases and ensure objectivity in code development (Mills et al., 2006), the initial coding scheme underwent scrutiny by two senior TESOL researchers from Iraq. After discussion and minor revisions, a final agreement was reached. Subsequently, eight out of the 32 papers were excluded from the corpus due to concerns related to methodologies, ethics, designs, and reported results.

In the coming subsections, the included papers will be reviewed within the identified research strands, and the codes within each strand will be discussed accordingly.

## 8. Research strands

The final corpus comprises 24 studies, classified according to their objectives. These studies are categorized into four main strands: vocabulary learning enhancement, vocabulary learning strategies, vocabulary teaching techniques evaluations, and vocabulary learning achievement. These are discussed below.

### 8.1. Strand one: vocabulary learning enhancement

The strand of vocabulary learning enhancement comprises the largest portion of the corpus, totalling fourteen studies, with the oldest dating back to 2018, indicating a recent surge in research attention to this aspect of language learning in Iraq. Below, an analysis of key themes observed in these studies, along with their strengths and weaknesses are presented.

Author(s)	Year	Participants	Sample size	Intervention	Outcome	Duration	Data collection tool
Abdul-Ameer, M. A.	2014	Primary school students	40	Digital stories	Positive	Three weeks	Post-intervention test
Faqe, C. K.	2017	University students	31	Movies with subtitles	Positive	One day	Questionnaire
Yaseen, A. T.	2018	Secondary school students	100	Vocabulary learning strategies training	Positive	5 weeks	Pre-test and post-test
Hamood, A. S.	2019	Primary school students	60	Emoticons on Viber	Positive	Five weeks	Learning logs

AbdulZahra, S. F.	2020	University students	28	WhatsApp	Positive	Six weeks	Questionnaires and interviews
Abood, S. F.	2020	University students	90	Glogster	Positive	Two months	Pre-test, post-test, and survey
Alsalihi, H. D.	2020	Secondary school students	62	Posters	Positive	Unmentioned	Pre-test and post-test
Meteab, S. A. & Alquraishy, S. W.	2021	Secondary school students	75	PowerPoint and YouTube	Positive	Six weeks	Pre-test and post-test
Mukhlif, M. I. & Challob, A. I.	2021	Secondary school students	72	Facebook	Positive	Twelve weeks	pre-test, post-test, semi-structured interviews, and observation
Abdulhussein S. H. & Alimardani, E.	2021	Secondary school students	40	story-based video games	Positive	15 days	Pre-test, post-test, and questionnaire
Hussein, M. J., Selman, A. r., & Hassan, A. A. N.	2021	Secondary school	30	board games	Positive	20 days	Pre-test and post-test
Ridha, S. K., Bostanci, H. B., & Kurst, M.	2022	University students	40	Animated videos	Positive	Eight weeks	Pre-test and post-test
Küçük, T.	2023	University students	18	Mime games	Positive	Eight weeks	Pre-test, post-test, questionnaire, and interview
Al-Khazaali, H., Amiran, Z., & Shahnazari, M.	2023	University students	100	Facebook	Positive	18 weeks	Pre-test, post-test, and questionnaire

**Limited scope of research context:** The research predominantly focuses on university and secondary education contexts, with six studies each, while only two studies were conducted in primary schools. This suggests a disproportionate emphasis on vocabulary enhancement among younger learners by researchers. Given the foundational importance of vocabulary acquisition in English education at the primary level, this disparity is unexpected.

**Participant sample size:** All studies within this strand feature substantial participant samples, ensuring the reliability and validity of the findings in terms of sampling. According to Borg and Gall (1979), experimental designs in educational research should ideally include a minimum of fifteen participants. The included studies adhere to this guideline, with participant numbers ranging from 18 in Küçük (2023) to 100 in Yassen (2018) and Al-Khazaali et al. (2023), demonstrating a robust range of sample sizes across the studies.

**Intervention methods:** Unexpectedly, almost all studies within this category utilized technology to enhance vocabulary learning among participants. These technological interventions encompassed a wide array of platforms, including social media, messaging applications, movies, PowerPoint presentations, games, animated videos, digital stories, and Glogster. This trend underscores the prevalent use of technology in research aimed at improving vocabulary acquisition in this context. Moreover, the diverse range of technological tools employed suggests that various methods have been identified as effective in facilitating vocabulary learning.

**Learning outcomes:** All studies demonstrated significant positive outcomes irrespective of the type of technology employed, as well as the educational context and level targeted. However, none of the studies provided insights into how these effects were generated or which variables were considered. Furthermore, there was limited information about the control groups beyond the statement that 'they followed traditional methods'. Additionally, some studies, such as those by Faqe (2021) and AbdulZahra (2020), solely relied on self-evaluations by students, which are susceptible to subjectivity and teacher influence. Consequently,

while these studies reported positive effects of the technology on student performance, the specific mechanisms through which this technology influenced performance, or the educational principles targeted, remain unclear.

**Assessment of effects:** While twelve studies utilized a pretest-posttest effect measurement tool, none incorporated a delayed posttest. Delayed post-tests, administered two or more weeks after the treatment and the immediate post-test, are critical in vocabulary experimental studies to assess knowledge retention over time (Haynie, 1997). These tests distinguish between short-term and long-term retention, as well as identify any novelty effects associated with the newly adopted method. The absence of delayed posttests in these studies compromises the reliability and validity of the results obtained, casting doubt on the findings.

**Tracking user engagement:** Several studies, especially those employing technologies requiring student usage outside the classroom (e.g., WhatsApp, Facebook, Viber), lacked information on how researchers ensured participants' actual utilization of these tools, making it impossible to track their engagement. This absence of tracking raises doubts about participants' true involvement in the experiment. For instance, in Mukhlif and Challob's (2021) study utilizing Facebook to enhance secondary school students' vocabulary learning, they concluded that the "FOLP [Facebook online learning platform] was more effective than traditional instruction in improving EFL students' vocabulary knowledge" (p. 239). However, the method of measuring student engagement over the twelve-week duration remains unclear. Moreover, it seems implausible that all 36 students in the treatment group had consistent internet access during this period.

**Lack of theoretical framework:** Despite reporting positive outcomes, none of the studies provided a clear theoretical or pedagogical foundation for their experiments. Instead, they attributed significant improvements solely to the technology employed. This absence of theoretical grounding undermines the credibility of the reported results. As noted by Burston (2015), "MALL [mobile assisted language learning] implementation studies have fallen into the trap of attempting to attribute learning gains to the technology itself rather than to the way technology was manipulated to affect achievement" (p. 16). For instance, in Hamood's (2019) study, where Viber emoticons were purported to enhance vocabulary learning, the rationale behind this effect remains unclear. Why did using emoticons yield better results than using written words in the Viber messaging application? This lack of theoretical underpinning applies, to varying degrees, to all the studies included in this strand.

**Applicability concerns:** Even if the results reported in this research strand are valid and genuinely reflect the potential for enhancing vocabulary learning in the target context, there remains a significant concern regarding their applicability, replication, and overall value in genuinely improving vocabulary acquisition. Many of these studies failed to consider the contextual challenges and constraints present in the educational environment. It is unclear how the methods and strategies proposed in these studies could be effectively integrated into real classrooms and existing curricula. For instance, it is uncertain how a tool like Glogster, as used in Abood's (2020) study, could be replicated and implemented given its extensive IT requirements in a context known for poorly equipped classrooms and infrastructure. Similarly, approaches such as story-based video games (Abdulhussein & Alimarda, 2021), digital stories (Abdul-Ameer, 2014), or animated videos (Ridha et al., 2022) may seem detached from the realities of targeted classrooms, where teaching materials are strictly prescribed by authorities and there is limited room for adaptation. Thus, while these studies demonstrate promising results, their practical applicability in real-world educational settings remains uncertain.

**Uncontrolled variables:** These studies generally did not provide detailed information about the variables included in the experiments, beyond stating that 'the treatment group received the intervention while the control group received traditional instruction'. It is challenging to ascertain whether variables were adequately controlled in either group. For instance, in Yaseen's (2018) study, which aimed to train secondary school students in vocabulary learning strategies and measure the impact on their vocabulary retention, the five-week treatment involved various additional factors beyond VLS training. These included the use of multiple teaching aids, daily and weekly vocabulary quizzes, and daily interviews with subjects regarding their learning experiences. These additional variables could significantly influence participants' learning efforts, processing, involvement, and motivation. Moreover, exposure to test techniques and materials may have influenced participants' performance in the experimental group. Therefore, while the study demonstrated improvement in the experimental group's performance, attributing this improvement solely to vocabulary learning strategies training may be inappropriate due to the presence of numerous uncontrolled variables.

## 8.2. Strand two: vocabulary learning strategies

The second strand of vocabulary research focuses on investigating the vocabulary learning strategies employed by Iraqi learners. A notable observation regarding these studies is that all of them are relatively recent, with the oldest conducted in 2017. In terms of quantity, this strand constitutes the second-largest body of research. The key themes with discussion of strengths and weaknesses are displayed below.

Author(s)	Year	Participants	Sample size	Variables	Tools
Mahmood, A. & Arsalan, F.	2017	University students	118	None	Questionnaire

Abid, R. A.	2017	University students	100	None	Questionnaire
Hamdany, H.	2018	University students	88	None	Questionnaire
Al-Asady, M. S. & Al-Salami, N. R.	2019	University students	50	Variable	Questionnaire
Al-Omairi, M.	2020	University students	100	None	Questionnaire and interview

**Sample size:** The surveys conducted on the utilization of vocabulary learning strategies targeted samples of the population rather than the entire population. While this is a standard practice in survey studies, the size of the participant samples can pose challenges due to their relatively small numbers. The study conducted by Mahmood and Arsalan (2017) boasted the highest number of participants at 118, while other studies included as few as 50 participants. Having a large sample size in survey research is considered advantageous (Cohen et al., 2011), with survey studies typically recommended to have no fewer than a hundred participants (Borg & Gall, 1979). This consideration is particularly pertinent given that participants were randomly recruited for the studies.

**Targeted student population:** All the studies encompassed within this strand concentrated on the utilization of vocabulary learning strategies among undergraduate university students. Some studies specifically targeted students majoring in English within English departments (e.g., Abid, 2007; Hamdany, 2018), while others focused on students majoring in other fields but undertaking English as a component of their coursework (e.g., Al-Omairi, 2020). This emphasis on university students, as opposed to other educational stages, highlights a notable gap in vocabulary learning strategy research in Iraq concerning students enrolled in English programmes at primary and secondary school levels.

**Factors considered:** The literature widely acknowledges that the utilization of vocabulary learning strategies varies significantly due to various factors. These factors include proficiency level, motivation level, purpose of learning, types of tasks and texts, and the characteristics of the second language (Schmitt, 2000). Additionally, background variables such as gender (Fan, 2000), field of study (Gu, 2002), cultural background (O'Malley & Chamot, 1990), and the learning environment (Lacastro, 1994) have been found to influence the variation in vocabulary learning strategies. However, none of the studies included in this strand considered these variables; instead, they examined the overall utilization of these strategies among the target learners solely.

**8.3. Strand three: evaluation of vocabulary teaching techniques**

This area of research delved into the application of specific vocabulary teaching techniques and evaluated their impact on participants' performance. In terms of the number of studies encompassed in this category, it ranks third, comprising three recent studies, with Ali et al. (2015) being the earliest. The main themes are discussed below with reference to their strengths and shortcomings.

Author(s)	Year	Participants	Sample size	Outcome	Method	Duration	Design	Data collection tool
Ali, T. T., Ali, A. I., & Yasin, M. S. M.	2015	Secondary school students	40	Positive	Morphological analysis	Two days	Experimental	Pre-test and post-test
Abbas, C. F.	2022	Primary schools students	60	Neutral	Implicit and explicit vocabulary teaching methods	Seven weeks	Experimental	Pre-test and post-test
Bagheridoust, E. & Jawad, H. A.	2023	Secondary school students	92	Positive	Interlinear vs. L1 marginal glosses	One week	Quasi-experimental	Pre-test and post-test

**Educational focus:** All three studies in this strand concentrate on primary and secondary schools, highlighting a gap in coverage concerning university-level English education.

**Participant numbers:** All studies within this category meet the necessary sample size requirements for experimental research. Adhering to these guidelines ensures the findings' generalizability and enables researchers to draw more dependable conclusions. Additionally, sufficient participant numbers enhance the statistical power of the study, enabling researchers to detect meaningful effects and differences with greater precision, ensuring that observed results reflect genuine relationships between variables rather than chance occurrences (Sommet et al., 2023).

**Insufficient treatment duration:** The duration of intervention in the experiments conducted within these studies was inadequate. According to Burston (2015), learning outcomes should be based on projects lasting a reasonable duration to be objectively meaningful. Two studies in this category, Ali et al. (2015) and Bagheridoust and Jawad (2023), had notably short durations of intervention, spanning only two days and one week, respectively. Adequate treatment duration is essential for a comprehensive assessment of intervention effectiveness and helps mitigate threats such as novelty effects or researcher influence on participant behaviour (Stockwell & Hubbard, 2013). Given these brief durations, the reported positive results may not be fully reliable, raising concerns about their validity.

**Applicability of research:** In contrast to the studies within strand one, all the studies in this strand utilized teaching techniques that are practical and do not rely on IT facilities. This independence from technology and infrastructure enhances the feasibility of integrating these techniques into various educational contexts. The requirements of a teaching technique significantly influence its potential implementation and integration into the curriculum. Burston (2014) noted that the absence of financial and technological support is a significant barrier, rendering many mobile-assisted language learning studies impractical and unimplemented.

#### 8.4. Strand four: vocabulary learning achievement

This particular strand has attracted the least attention from researchers compared to the other strands examined in this study, with only two studies included. Similar to the other strands, the research within this strand is relatively recent. It specifically targets university-level learners, particularly those majoring in English within English departments. However, it is worth noting that the sample size in Abdulsahib's et al. (2022) study is insufficient to derive conclusive results.

Author(s)	Year	Participants	Sample size	Method	Outcome
Ahmed, Z. T., & Ja'afar, I. H.	2020	University students	120	Vocabulary test	Lexical knowledge develops
Abdulsahib, I. F., Dakhil, T. A., & Koban, H. J.	2022	University students	50	Vocabulary test	Limited achievement

**Flawed measurement methodology:** Both studies utilized vocabulary tests to gauge the participants' vocabulary learning achievement. However, the construction method of the test in Abdulsahib et al. (2022) lacks clarity. The researchers mentioned utilizing some books to create a test comprising 50 items, but the process for selecting these items remains unclear. It is ambiguous whether these items were chosen from the target vocabulary intended for participant learning or were encountered incidentally during the study period. In the second study (Ahmed & Jafa'ar, 2020), the researchers adopted Read's (2000) vocabulary test design, sourcing content from Coxhead's (2000) academic word list. However, the selected list contained specialized vocabulary (academic words), whereas the researchers aimed to assess the lexical knowledge of Iraqi EFL students without reference to a specific set of words.

## 9. Conclusion

The applied research on EFL vocabulary in Iraq appears to be relatively recent, with the oldest study dating back to 2014. However, it is important to note that this observation is based solely on published research. Furthermore, while research in this area is categorized into four main strands, it remains relatively scarce compared to the long history of ELT in Iraq and the large number of learners in the country. Each strand of research has been characterized by its own strengths and limitations, with variations in the amount of research conducted across these strands. In the vocabulary learning enhancement strand, a notable strength is the recruitment of an adequate number of participants, ensuring reliability and validity in terms of sampling. However, this research primarily targets learners at the university level, and the intervention methods are largely confined to technology-based

approaches. Concerns arise regarding the reported learning outcomes due to insufficient information about the experiment conditions for both control and treatment groups, as well as the presence of uncontrollable variables. Additionally, issues such as the lack of delayed post-tests, failure to track actual learner engagement, and the absence of educational principles underlying the interventions raise doubts about the reliability of the findings. Moreover, replicating and integrating these interventions in classrooms may pose challenges due to the lack of financial and IT support in the target context.

The second strand, focusing on investigating vocabulary learning strategies of Iraqi learners, has received less attention and is primarily conducted among undergraduate university students. Some studies within this strand suffer from problematic sampling, while others only meet the minimal threshold. A significant limitation observed here is the neglect of background and personal variables of participants, despite literature indicating their importance in understanding vocabulary learning strategies use. This oversight undermines the reliability and validity of reported findings. Regarding the third strand, vocabulary teaching techniques evaluation, only three studies are identified, mainly focusing on secondary and primary schools. These studies generally meet the sampling criterion and demonstrate the applicability of intervention treatments within the target context. However, a key limitation is the inadequate treatment duration in some studies, casting doubt on the reliability and validity of reported results. Finally, the vocabulary learning achievement strand has received the least attention from researchers, with a focus solely on university students majoring in English. While one study had an adequate sample size, the other only met the minimal threshold. The major limitation in this strand lies in the employment of problematic achievement measurement methods, such as the lack of clarity in test content construction and the use of specialized vocabulary lists inconsistent with the research objectives. In summary, while research on EFL vocabulary in Iraq is emerging, it is essential for future studies to address the identified limitations and gaps in order to ensure the reliability, validity, and applicability of findings in educational practice.

### **10. Suggestions for future research**

Despite the existing limitations and drawbacks in the research on EFL vocabulary in Iraq, there are ample opportunities for future studies to address these issues and contribute to the field. In the vocabulary learning enhancement strand, future research should focus on developing intervention tools that are compatible with the local contextual challenges, thereby enhancing their applicability in real classroom settings. Emphasis should also be placed on utilizing affordable technology, such as mobile-assisted language learning, based on sound educational principles. Researchers should pay careful attention to technical issues related to research design, including variable control, treatment duration, tracking actual usage, and effectiveness measurement. Additionally, there is a need for more research across different educational stages, including primary and secondary levels.

In the area of vocabulary learning strategies, research is currently limited to university learners. Future studies should broaden their scope to include learners at other educational stages, while also considering learners' background and personal variables. This will provide a more comprehensive understanding of vocabulary learning strategies and their effectiveness across diverse learner populations. Further research is also warranted in evaluating vocabulary teaching methods and techniques, particularly in terms of treatment duration. Given the lack of studies evaluating existing methods in schools, there is a clear need for research to fill this gap and assess the effectiveness of various teaching approaches.

Additionally, future research should focus on rigorously measuring and evaluating learners' vocabulary learning achievement during different educational stages. This will help assess the effectiveness of current instructional methods and prescribed textbooks in achieving desired learning outcomes. Finally, there is a need for research to examine the design and incorporation of vocabulary material in prescribed textbooks, as well as the range and type of vocabulary targeted. Understanding how vocabulary is presented and taught in textbooks can provide valuable insights for curriculum development and instructional practices.

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