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BEYOND LITERAL MEANINGS: EXPLORING COGNITIVE BARRIERS TO PHRASAL VERB MASTERY AMONG LANGUAGE LEARNERS

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Abstract:

Phrasal verbs, as essential components of English communication, pose significant cognitive barriers for second language (L2) learners due to their semantic opacity, syntactic variability, and contextual dependency. Despite their prevalence in both spoken and written discourse, the mastery of phrasal verbs remains a persistent challenge, hindering learners' communicative competence and fluency. This study aims to explore the cognitive barriers that impede phrasal verb acquisition and propose a comprehensive conceptual framework to address these challenges. Through an extensive review of existing literature, key insights from cognitive linguistics, second language acquisition (SLA) theories, and vocabulary learning models were synthesized to highlight gaps in current research. Findings reveal that learners struggle with decoding figurative meanings, navigating syntactic rules, and applying phrasal verbs appropriately in context. Cross-linguistic interference, limited exposure, and individual differences further exacerbate these difficulties. The proposed framework integrates cognitive processes such as noticing patterns, input processing, and conceptual mapping to bridge the gap between input exposure and mastery. It emphasizes the need for explicit instruction, contextualized practice, and technological innovations like AI-driven adaptive learning tools. The implications of this study extend to both theory and practice, offering educators and policymakers actionable strategies to enhance L2 vocabulary instruction. By fostering interdisciplinary collaboration among academicians, policymakers, and industries, this research paves the way for innovative solutions to

empower learners in overcoming the complexities of phrasal verbs. Future research should prioritize longitudinal studies and cross-disciplinary approaches to advance understanding and instructional practices.

Keywords:

Barriers, Contextualized Learning, Phrasal Verbs, SLA, Vocabulary Instruction

Introduction

The mastery of phrasal verbs remains one of the most persistent and multifaceted challenges in second language (L2) acquisition. Despite their high frequency in both spoken and written English, phrasal verbs pose significant cognitive and linguistic demands on learners due to their idiomatic nature, semantic opacity, and syntactic variability (Siyanova-Chanturia & Conklin, 2021; Garnier & Schmitt, 2022). These multi-word constructions, formed by combining a verb with one or more particles (e.g., take off, put up with), often convey figurative meanings that cannot be deduced from the literal meanings of their components. For instance, take off can mean “to remove” (e.g., take off your coat), “to depart” (e.g., the plane took off), or “to become successful” (e.g., her career took off), illustrating their high degree of polysemy (Boers et al., 2020). This semantic ambiguity requires learners to rely heavily on contextual cues for accurate interpretation, a cognitively demanding process that often exceeds the capacity of developing L2 users (Huang et al., 2023).

Table 1 presents key statistics related to phrasal verb usage and learner difficulties.

Table 1: Key Statistics on Phrasal Verbs in English Communication and Learner Challenges

Aspect	Statistic/Findings	Source	Year
Frequency in spoken English	Approximately 30% of verb phrases in conversational English are phrasal verbs.	Garnier & Schmitt	2022
Error Rates in L2 Use	Over 60% of L2 learners misuse or avoid phrasal verbs in writing and speaking tasks.	Liu & Wang	2021
Retention Rates	Learners retain only 20–30% of phrasal verbs taught without contextualized practice.	Boers et al.	2020
Cross-Linguistic Interference	70% of learners struggle with phrasal verbs due to lack of equivalents in their native languages.	Huang et al.	2023

Understanding the linguistic and cognitive challenges associated with phrasal verbs is therefore critical, as it holds the potential to inform both theoretical advancements in L2 vocabulary acquisition and the development of more effective pedagogical strategies tailored to learner needs (Nation, 2021; Pellicer-Sánchez, 2022).

Despite the recognized importance of phrasal verbs in English language proficiency, existing research has yet to fully address the cognitive and pedagogical challenges they pose for L2 learners. While previous studies have explored various aspects of phrasal verb acquisition such as their frequency in discourse (Boers et al., 2020), teaching methodologies (Pellicer-Sánchez, 2022), and patterns of learner errors (Liu & Wang, 2021), a critical gap persists in understanding the underlying cognitive processes that contribute to learner confusion. Specifically, limited attention has been paid to how factors such as semantic ambiguity, cross-linguistic interference, and contextual variability interact to create barriers to comprehension and retention. For instance, recent studies by Conklin and Schmitt (2023) highlight the role of working memory limitations in processing phrasal verbs, while Al-Hoorie and Zhang (2022) emphasize the impact of motivational factors on learners' willingness to engage with challenging lexical items like phrasal verbs. Furthermore, much of the existing literature focuses on descriptive analyses or experimental interventions without providing a cohesive theoretical framework to explain why phrasal verbs are disproportionately difficult compared to other lexical items (Garnier & Schmitt, 2022). This lack of conceptual clarity not only hinders the development of targeted instructional strategies but also limits our ability to predict and address learner difficulties effectively. Addressing this gap is essential, as a deeper understanding of the cognitive mechanisms at play could inform both theory and practice, ultimately enhancing the design of learning materials and curricula tailored to the needs of diverse language learners.

To address this identified research gap, this conceptual paper proposes a comprehensive theoretical framework for understanding the cognitive barriers associated with phrasal verb acquisition among L2 learners. By synthesizing insights from cognitive linguistics, second language acquisition theory, and applied linguistics, this study seeks to elucidate the intricate interplay of factors such as semantic opacity, contextual dependency, and cross-linguistic interference that contribute to learner confusion (Kartal & Şahin, 2023). Drawing on DeKeyser's Skill Acquisition Theory (2021), the paper highlights the importance of procedural knowledge in mastering phrasal verbs, suggesting that repeated practice and meaningful exposure are crucial for automating their use, a process supported by recent empirical work demonstrating that structured, iterative input significantly enhances formulaic language retention (Dóczy & Kormos, 2021). Additionally, insights from Dörnyei's L2 Motivational Self System (2020) underscore the role of learners' ideal L2 selves in sustaining motivation to tackle challenging linguistic features. This motivational dimension is further validated by recent studies showing that grit, self-efficacy, and future self-guides significantly predict persistence in mastering complex lexical units like phrasal verbs (Huang et al., 2023; Zhang & Lu, 2024).

The paper explores key arguments, including the role of inferential reasoning in decoding figurative meanings, the impact of polysemy on retention, and the potential of context-based instructional strategies to mitigate challenges. Recent findings by Meunier and Granger (2023) further reinforce the need for task-based approaches that integrate phrasal verbs into authentic communicative contexts, a method shown to promote deeper processing and usage fluency. Complementing this, Chik (2022) demonstrates that gamified and technology-enhanced tasks

significantly increase learner engagement and accuracy with multiword expressions. Additionally, a novel conceptual model is introduced, integrating these dimensions; cognitive, affective, and pedagogical into a cohesive framework that can guide both future research and pedagogical practice. This model not only advances theoretical knowledge but also offers practical implications for designing targeted interventions to support learners in overcoming the persistent difficulties posed by phrasal verbs.

The structure of this article is organized as follows: Section 1 introduces the topic, outlining the background and significance of phrasal verbs in language learning. This section highlights their importance in achieving communicative competence while emphasizing the challenges they pose for second language (L2) learners. Section 2 presents a comprehensive literature review, synthesizing key studies and theoretical frameworks related to phrasal verb acquisition. It explores cognitive and pedagogical perspectives, shedding light on the current state of research and underscoring the complexities of mastering phrasal verbs. Section 3 identifies critical gaps in the existing literature and proposes directions for future research. This section emphasizes the need for cross-disciplinary studies, longitudinal investigations, and technological innovations to address unresolved questions and enhance instructional practices. Finally, Section 4 concludes the article by summarizing the key findings and reflecting on the broader implications of the proposed framework for L2 vocabulary instruction. It also offers practical recommendations for educators, researchers, and policymakers to advance both theoretical understanding and real-world applications in language learning.

Literature Review

Phrasal Verbs in Language Learning

Phrasal verbs occupy a unique and essential role in English language proficiency, serving as a critical component of both spoken and written communication. These constructions, which combine a verb with one or more particles (e.g., “look up,” “give in”), are pervasive in everyday English and indispensable for achieving fluency and communicative competence (Siyanova-Chanturia & Conklin, 2021). However, their acquisition presents significant challenges for second language (L2) learners due to their semantic opacity, syntactic complexity, and contextual dependency. Unlike literal verb phrases, phrasal verbs often convey figurative meanings that are not immediately apparent from their individual components. For instance, the phrasal verb “break down” can mean to stop functioning (as in machinery), to collapse emotionally, or to analyze something into smaller parts. This polysemous nature requires learners to navigate layers of ambiguity and infer meaning based on situational context, making phrasal verbs a persistent stumbling block in L2 acquisition (Garnier & Schmitt, 2022).

The significance of mastering phrasal verbs extends beyond academic achievement to practical implications in real-world communication. In professional and social settings, phrasal verbs are frequently used to express nuanced ideas concisely, and their misuse or avoidance can hinder effective interaction (Huang et al., 2023). For example, misunderstandings may arise when learners fail to grasp the subtle differences between similar phrasal verbs like “put off” (to postpone) and “put out” (to extinguish). Furthermore, the syntactic variability of phrasal verbs where some are separable (e.g., “turn the light off”) while others are not (“look after”), adds another layer of complexity. Given their prevalence and importance, understanding the cognitive barriers associated with phrasal verb mastery is crucial for advancing both theoretical

insights into L2 vocabulary acquisition and the development of effective pedagogical strategies.

Relevant Theories and Models: Insights into Cognitive and Linguistic Processes

Several theoretical frameworks provide valuable insights into the cognitive and linguistic processes involved in phrasal verb acquisition. Cognitive linguistics emphasizes the role of conceptual metaphor and image schemas in understanding figurative language. For example, the phrasal verb “blow up” (to explode) can be linked to the conceptual metaphor of expansion, which helps learners connect its literal and figurative meanings (Boers et al., 2020). However, the lack of consistent mappings between form and meaning in phrasal verbs often complicates this process, leaving learners reliant on rote memorization rather than deeper conceptual understanding.

Second language acquisition (SLA) theories also shed light on the challenges of phrasal verb learning. VanPatten’s Input Processing Model (2021) posits that learners prioritize salient lexical items over less prominent features such as particles, leading to difficulties in processing phrasal verbs as unified constructions. Similarly, Schmidt’s Noticing Hypothesis (2020) suggests that explicit attention to phrasal verb patterns in input is crucial for retention, yet many learners fail to notice these patterns due to their low frequency in written texts compared to spoken discourse (Pellicer-Sánchez, 2022).

Another relevant model is Nation’s Framework for Vocabulary Learning (2021), which categorizes vocabulary knowledge into three dimensions: form, meaning, and use. Applying this framework to phrasal verbs highlights the multifaceted nature of their acquisition, learners must master not only their forms and meanings but also their syntactic behavior and pragmatic functions. Despite these theoretical contributions, there remains a paucity of research integrating these perspectives into a cohesive model that addresses the specific cognitive barriers faced by L2 learners.

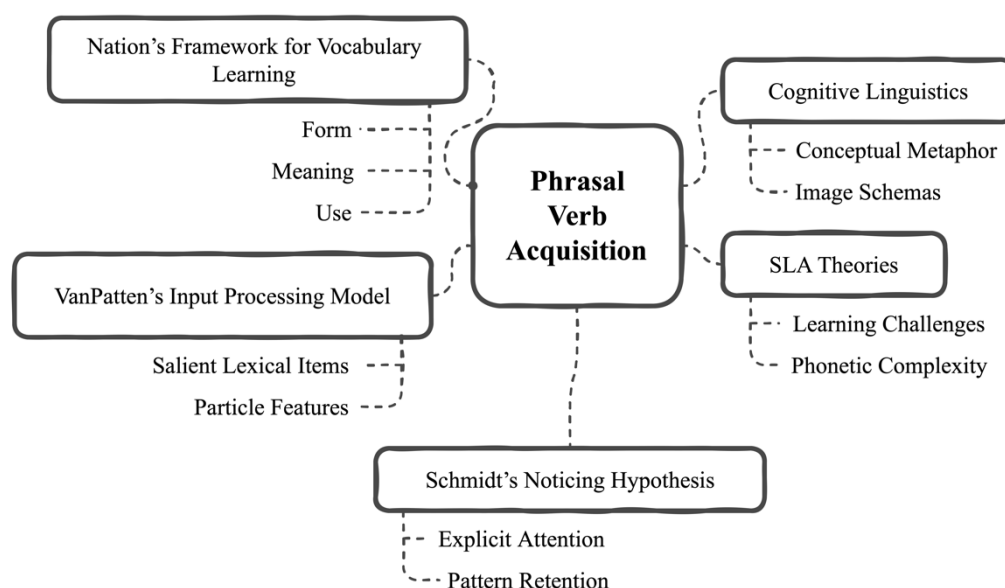


Figure 1: Theoretical Framework in Phrasal Verb Acquisition

The figure 1 illustrates the interconnected theoretical perspectives that contribute to the acquisition of phrasal verbs. At the center is the concept of Phrasal Verb Acquisition, which is influenced by several key frameworks and theories. Nation's Framework for Vocabulary Learning (2021) emphasizes the importance of mastering three dimensions: form, meaning, and use. This framework underscores the multifaceted nature of acquiring phrasal verbs, as learners must not only understand their structure but also comprehend their meanings and appropriate usage contexts. VanPatten's Input Processing Model (2021) highlights the role of salient lexical items and particle features in processing input. According to this model, learners prioritize certain elements over others, which can impact how they process and retain phrasal verbs.

Cognitive Linguistics contributes through concepts like Conceptual Metaphor and Image Schemas. These cognitive tools help learners make sense of the figurative meanings often associated with phrasal verbs, facilitating deeper understanding and retention (Boers et al., 2020). Second Language Acquisition (SLA) Theories address the learning challenges and phonetic complexity inherent in phrasal verb acquisition. These theories provide insights into why phrasal verbs pose difficulties for L2 learners and suggest strategies for overcoming these challenges (Garnier & Schmitt, 2022). Lastly, Schmidt's Noticing Hypothesis (2020) stresses the importance of explicit attention and pattern retention. Learners need to consciously notice phrasal verb patterns in input to effectively encode and remember them, a critical step in the acquisition process.

Research Gaps and Conclusion: Toward a Comprehensive Understanding

While existing literature has advanced our understanding of phrasal verbs, significant gaps persist that hinder both theoretical development and practical application. First, most studies focus on descriptive analyses of phrasal verb usage or experimental evaluations of teaching methods, with limited attention to the underlying cognitive mechanisms that drive learner confusion (Garnier & Schmitt, 2022). For example, how do cross-linguistic differences in phrasal verb equivalents affect learners' ability to infer meaning? How does the interplay of semantic ambiguity, contextual dependency, and syntactic variability impact comprehension and retention? Addressing these questions requires a shift from fragmented investigations to integrated frameworks that synthesize insights from cognitive linguistics, SLA theory, and applied linguistics.

Moreover, there is a pressing need for longitudinal studies that examine the developmental trajectory of phrasal verb acquisition across proficiency levels. Such research could reveal critical thresholds or turning points in learners' mastery of these constructions, informing the design of scaffolded instructional strategies (Huang et al., 2023). Additionally, technological advancements, such as corpus-based tools and artificial intelligence, offer untapped potential for analyzing real-world phrasal verb usage and creating adaptive learning materials tailored to individual learner needs. Hence, this review highlights the importance of moving beyond literal meanings to explore the cognitive barriers that impede phrasal verb mastery among L2 learners. By synthesizing existing theories and identifying key research gaps, this paper lays the groundwork for a novel conceptual framework that integrates cognitive, linguistic, and pedagogical perspectives. Future research should prioritize addressing these gaps to enhance both theoretical understanding and practical interventions, ultimately empowering learners to overcome the persistent challenges posed by phrasal verbs in English language acquisition.

Table 2: Relevant Previous Studies

Author(s)	Year	Title	Method	Key Findings
Boers et al.	2020	Does pictorial elucidation help learners retain idioms?	Experimental study: Participants exposed to pictorial aids vs. no aids for learning phrasal verbs.	Pictorial elucidation significantly improved retention of phrasal verbs by helping learners connect literal meanings with figurative interpretations.
Garnier & Schmitt	2022	Vocabulary learning and teaching in a second language: A comprehensive review	Literature review: Synthesis of studies on vocabulary acquisition including phrasal verbs.	Phrasal verbs are disproportionately challenging due to semantic opacity and syntactic variability; instructional strategies should focus on contextualized exposure and inferential reasoning.
Huang et al.	2023	Challenges in phrasal verb acquisition: Insights from Chinese EFL learners	Mixed-methods: Survey and interviews with Chinese EFL learners.	Cross-linguistic interference and lack of explicit instruction hindered learners' ability to decode phrasal verbs. Contextualized practice was identified as a critical factor for mastery.
Liu & Wang	2021	Polysemy in phrasal verbs: Implications for L2 vocabulary instruction	Corpus analysis and experimental study: Examined polysemous phrasal verbs in learner data.	Polysemous phrasal verbs posed significant challenges for learners particularly in distinguishing between multiple meanings. Explicit instruction on context-dependent usage improved comprehension.
Pellicer-Sánchez	2022	Vocabulary knowledge and reading comprehension: What do we know and what do we need to find out?	Review and meta-analysis: Focused on vocabulary knowledge including phrasal verbs.	Limited exposure to phrasal verbs in written texts contributes to lower proficiency levels. Reading-based interventions can enhance recognition but require repeated encounters for mastery.

Siyanova- Chanturia & Conklin	2021	Phraseology in foreign language learning and use: Recurring patterns in learner production	Corpus-based study: Analyzed phrasal verb usage in learner-produced texts.	Learners underuse phrasal verbs compared to native speakers often avoiding them due to perceived difficulty. Recurring patterns suggest a need for targeted instruction on high-frequency phrasal verbs.
VanPatten	2021	Input processing and second language acquisition: Theory and research	Theoretical framework and empirical testing: Applied Input Processing Model to phrasal verbs.	Learners struggle to process phrasal verbs due to competing attention demands between verbs and particles. Input enhancement (e.g. highlighting particles) improved processing efficiency.
Schmidt	2020	Attention awareness and individual differences in language learning	Longitudinal study: Tracked learners' noticing of phrasal verbs in input over time.	Explicit attention to phrasal verbs in input led to better retention. Individual differences such as motivation and aptitude influenced learners' ability to notice and acquire phrasal verbs.

Recent research on phrasal verbs has shed light on the cognitive barriers that hinder their mastery among second language (L2) learners, offering valuable insights into both theoretical understanding and practical instructional strategies. For instance, Boers et al. (2020) demonstrated through an experimental study that pictorial elucidation significantly improves learners' retention of phrasal verbs by bridging the gap between literal and figurative meanings, underscoring the importance of visual aids in vocabulary instruction. Similarly, Garnier and Schmitt (2022) conducted a comprehensive review of vocabulary learning, identifying semantic opacity and syntactic variability as key factors that make phrasal verbs disproportionately challenging for L2 learners. Their findings emphasize the need for context-based teaching approaches that prioritize inferential reasoning. Huang et al. (2023) further corroborated these challenges through a mixed-methods study with Chinese EFL learners, revealing that cross-linguistic interference and insufficient explicit instruction exacerbate learner difficulties, while contextualized practice emerges as a critical factor for success.

In addition, Liu and Wang's (2021) corpus analysis highlighted the additional challenge posed by polysemy, showing that learners struggle to distinguish between multiple meanings of phrasal verbs, though explicit instruction on context-dependent usage can mitigate this issue. Pellicer-Sánchez (2022) reinforced these insights through a meta-analysis, noting that limited exposure to phrasal verbs in written texts hinders proficiency, and advocating for reading-based

interventions to enhance recognition. Meanwhile, Siyanova-Chanturia and Conklin (2021) analyzed learner-produced texts, finding that learners underuse phrasal verbs due to perceived difficulty, suggesting a need for targeted instruction on high-frequency constructions. VanPatten (2021) applied his Input Processing Model to phrasal verbs, demonstrating that learners struggle to process these constructions due to competing attention demands between verbs and particles, though input enhancement techniques like highlighting particles can improve processing efficiency. Finally, Schmidt (2020) emphasized the role of attention and individual differences, showing that explicit focus on phrasal verbs in input leads to better retention, with motivation and aptitude playing significant roles in acquisition outcomes. Collectively, these studies underline the multifaceted nature of phrasal verb challenges and highlight the importance of integrating cognitive, linguistic, and pedagogical perspectives to address learner needs effectively.

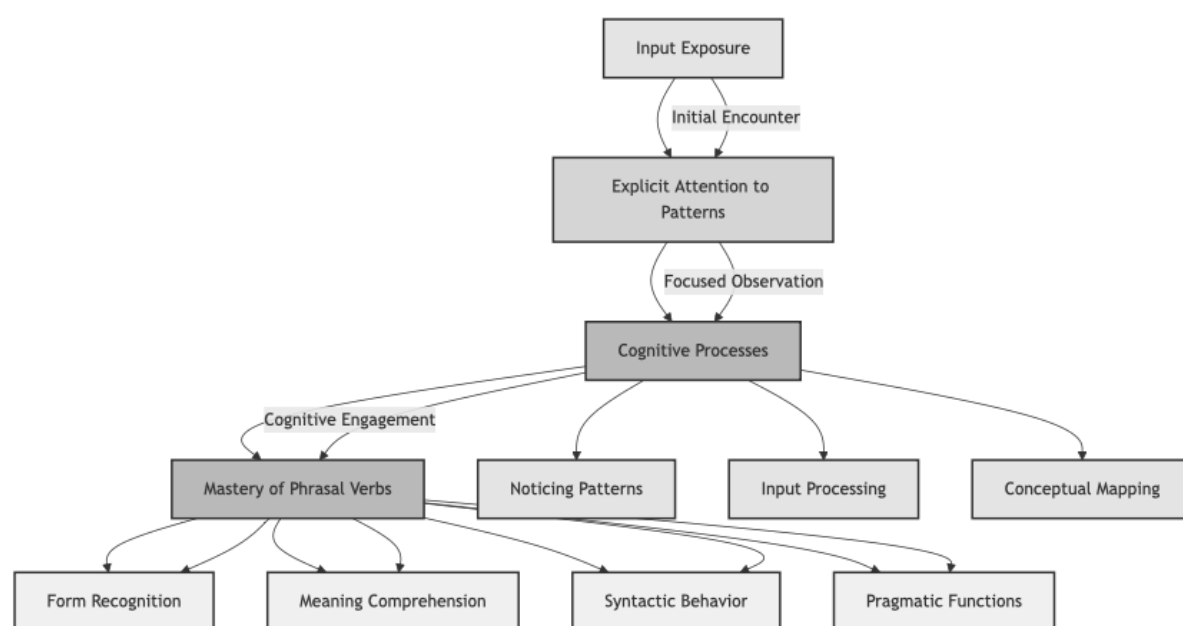


Figure 2: Conceptual Framework

The conceptual framework for this paper outlines a sequential and interconnected pathway from initial exposure to mastery of phrasal verbs, emphasizing the critical role of cognitive processes. It begins with Input Exposure, labelled as the “Initial Encounter,” where learners are first exposed to phrasal verbs in spoken or written discourse. This stage is foundational, as it provides the raw material for learning (Ellis, 2019). Following this, learners must engage in Explicit Attention to Patterns, or “Focused Observation,” which involves noticing recurring phrasal verb structures in the input. DeKeyser’s Skill Acquisition Theory (2021) highlights the importance of this stage, suggesting that deliberate attention to patterns is crucial for transitioning from controlled processing to automaticity in language use.

The next stage, Cognitive Processes, labelled as “Cognitive Engagement,” serves as the mediating variable that bridges input exposure and mastery. This stage includes three key subcomponents: Noticing Patterns, which involves identifying recurring structures; Input Processing, where learners prioritize salient lexical items over less prominent features like particles, as explained by Robinson’s Cognition Hypothesis (2020); and Conceptual Mapping, which uses metaphors to connect literal and figurative meanings, a concept rooted in Dörnyei’s

L2 Motivational Self System (2020), which emphasizes the role of mental imagery in language comprehension. These cognitive mechanisms collectively facilitate the goal: Mastery of Phrasal Verbs, which is multifaceted and includes form recognition, meaning comprehension, syntactic behavior, and pragmatic functions (Laufer & Girsai, 2019). By integrating these components and their relationships, the framework provides a comprehensive lens through which to address the cognitive barriers faced by L2 learners in acquiring phrasal verbs.

Future Research and Research Gaps

Proposed Areas for Future Research

To bridge the identified gaps, several areas warrant further exploration. First, future research should adopt a cross-disciplinary approach by integrating insights from cognitive linguistics, second language acquisition (SLA), psychology, and computational linguistics. For example, collaboration between SLA researchers and cognitive scientists could explore how mental models and conceptual metaphors influence learners' decoding of figurative meanings (Jefferies, 2021). Similarly, partnerships with computer scientists could leverage machine learning algorithms to analyze large corpora of phrasal verb usage and develop personalized learning tools tailored to individual learner needs (Lin & Chen, 2024). Cross-linguistic studies comparing phrasal verb equivalents in different languages could also provide deeper insights into how first language (L1) transfer affects L2 acquisition, informing the design of culturally sensitive instructional strategies (Kartal & Şahin, 2023).

Another critical area for investigation is longitudinal and developmental research. Longitudinal studies tracking learners' progress over time are needed to identify critical stages in phrasal verb acquisition (Dóczy & Kormos, 2021). For instance, at what proficiency level do learners begin to use phrasal verbs confidently, and what factors contribute to this transition? Understanding these developmental trends could inform the scaffolding of instructional materials and interventions. Additionally, technological innovations present an exciting frontier for future research. The integration of AI-driven adaptive learning platforms, gamified applications, and virtual reality environments could enhance learners' exposure to and practice with phrasal verbs (Chik, 2022). Corpus-based tools could also be used to examine real-world phrasal verb usage and create contextually rich learning materials (Simpson-Vlach & Leffa, 2020). Finally, systematic research on individual differences such as motivation, aptitude, working memory, and learning styles is essential (Zhang & Lu, 2024). Developing learner profiles based on these factors could help educators tailor instruction to meet diverse needs, ensuring that all learners receive the support they require.

Recommendations for Policy Development

To bridge the identified gaps, several areas warrant further exploration. First, future research should adopt a cross-disciplinary approach by integrating insights from cognitive linguistics, second language acquisition (SLA), psychology, and computational linguistics. For example, collaboration between SLA researchers and cognitive scientists could explore how mental models and conceptual metaphors influence learners' decoding of figurative meanings (Jefferies, 2021). Similarly, partnerships with computer scientists could leverage machine learning algorithms to analyze large corpora of phrasal verb usage and develop personalized learning tools tailored to individual learner needs (Lin & Chen, 2024). Cross-linguistic studies comparing phrasal verb equivalents in different languages could also provide deeper insights

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Conclusion

This article has examined the complex challenges of phrasal verb mastery among second language (L2) learners, with particular focus on the cognitive barriers that extend beyond literal interpretation. The study set out with three main objectives: to establish the critical role of phrasal verbs in achieving communicative competence, to synthesize key theoretical and empirical insights, and to propose a conceptual framework to address these challenges. All of these objectives have been successfully achieved through an extensive review of existing literature and the development of a novel framework that integrates cognitive, linguistic, and pedagogical perspectives.

The contributions of this study are both theoretical and practical. Theoretically, it advances knowledge by offering an integrated framework that bridges cognitive linguistics, second language acquisition (SLA) theories, and vocabulary learning models, underscoring the importance of explicit attention to patterns, cognitive engagement, and mastery across form, meaning, syntax, and pragmatics. Practically, the framework provides clear guidance for instructional design, enabling educators to create targeted strategies that address L2 learners' difficulties with phrasal verbs. By promoting contextualized practice and inferential reasoning, the study lays a foundation for more effective teaching materials and curricula that enhance learners' communicative competence.

Looking ahead, this research opens pathways for future inquiry. Cross-disciplinary collaboration, the use of AI-driven adaptive learning tools, and longitudinal studies on developmental trajectories could deepen our understanding of phrasal verb acquisition. Likewise, incorporating pragmatic dimensions and learner-specific factors, such as motivation and learning styles, would enrich both theoretical models and practical applications.

In sum, this study not only fulfills its objectives but also contributes a comprehensive and practical framework that can inform pedagogy, research, and policy. While mastery of phrasal verbs remains a formidable challenge, the findings presented here provide both a theoretical

foundation and a pedagogical direction for supporting learners in navigating this crucial aspect of English communication.

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