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The Effect of Integrating Concept-Based and Task-Based Instructional Activities on EFL Academic Collocation Learning

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***Abstract*—This study examined the effects of integrating Task-Based Instruction (TBI) with Concept-Based Instruction (CBI) on Vietnamese EFL students' acquisition of academic collocations and their learning perceptions. Using a mixed-methods design, 73 English majors from two classes were divided into an Integrated Group (n = 42) that received integrated instruction and a TBI Group (n = 31) that received only task-based instruction. An Academic Collocation Test (ACT) was administered before and after the intervention, followed by semi-structured interviews with seven students. Findings showed that both groups improved significantly, but the Integrated Group achieved greater overall gains and more balanced progress in grammatical and lexical collocations. Interview data revealed that integrated instruction enhanced conceptual understanding, engagement, and application of collocations in writing. This study provides empirical evidence that integrating TBI and CBI is effective in supporting academic vocabulary learning and offering pedagogical implications for designing theory-informed instruction in tertiary EFL contexts.**

***Index Terms*—academic collocations, concept-based instruction, EFL, integrated instruction, task-based instruction**

I. Introduction

Academic collocations constitute a fundamental component of English for Academic Purposes, critical for scholarly communication (Coxhead, 2018). Despite their significance, EFL learners encounter persistent difficulties with collocational acquisition due to the inherent complexity of this area (Ellis, 2003). Recent research in Vietnam has confirmed that English-major students lacked academic collocational knowledge and perceived a need for urgent training to build their confidence in academic writing (My & Loi, 2025).

Traditional instructional methodologies have proven insufficient for developing robust collocational competence (Li & Lei, 2024), underscoring the need for innovative pedagogical interventions. Task-Based Instruction (TBI) and Concept-Based Instruction (CBI) represent two established methodological frameworks in language pedagogy. While TBI emphasizes authentic language production through communicative tasks (Ellis, 2003), CBI facilitates metalinguistic awareness by elucidating underlying linguistic patterns (Lantolf & Thorne, 2006). Despite their individual merits, each presents its unique limitations, but research examining the integration of these approaches for academic collocation acquisition remains sparse.

This study investigates the efficacy of an integrated TBI-CBI approach on Vietnamese EFL learners' academic collocation acquisition, addressing two research questions:

1. To what extent does integrating TBI and CBI activities affect Vietnamese EFL learners' academic collocation acquisition compared to isolated TBI?
2. What are Vietnamese EFL learners' perceptions and experiences regarding the integration of TB and CB Instructional activities?

II. Literature Review

Academic collocation acquisition represents a critical challenge in EFL pedagogy, where sophisticated lexical competence intersects with cognitive processing limitations and instructional constraints. This review synthesizes contemporary theoretical frameworks and empirical evidence to establish foundations for an integrated model of Task-Based Instruction (TBI) and Concept-Based Instruction (CBI).

A. Academic Collocations: Conceptualization and Acquisition Challenges

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Academic collocations are restricted lexical co-occurrence patterns that exhibit statistical significance in scholarly discourse (Ackermann & Chen, 2013). Benson et al.'s (1986) taxonomy distinguishes grammatical collocations (e.g., rely on, consistent with) from lexical collocations, comprising verb-noun (e.g., conduct research), adjective-noun (e.g., substantial evidence), and noun-verb (e.g., findings indicate) combinations. These high-frequency multi-word units, fundamental to academic literacy (Coxhead, 2000), demonstrate acquisition patterns distinct from general vocabulary through complex form-meaning-use interdependencies.

Psycholinguistic research reveals that collocational processing integrates statistical learning and holistic storage mechanisms (Ellis, 2002; Wray, 2002). However, EFL learners face persistent challenges due to L1 interference, leading to errors such as substituting 'research' for 'conduct research' (Granger & Bestgen, 2014). This reveals a critical gap between recognition and production. Nation's (2013) framework emphasizes that mastering form, meaning, and use demands explicit focus. Since explicit instruction yields stronger outcomes than incidental exposure (Peters, 2016), and integrated approaches combining both methods foster collocational fluency (Webb & Nation, 2017), explicit-integrated instruction offers a more effective pathway to academic writing competence.

B. Task-Based Instruction: Cognitive Affordances and Limitations

Task-Based Instruction employs goal-oriented, meaning-focused activities enabling learners to accomplish authentic communicative objectives (Ellis, 2003). Empirical research indicates that task repetition and cognitive challenges enhance collocation learning, particularly in collaborative settings promoting negotiation and diverse input (Dao & Newton, 2021). However, while tasks promote fluency, they often neglect the conceptual and structural dimensions of collocations (Boers & Lindstromberg, 2009). Task-based dictionary activities yielded only moderate accuracy in verb-noun collocation use (Chen, 2022), indicating that learners struggle without explicit linguistic support. Scholars argue that supplementing TBI with focus-on-form strategies and metalinguistic scaffolding is essential for accuracy and durable learning (Ellis, 2006; Boers & Lindstromberg, 2009). These limitations suggest that TBI requires integration with conceptually oriented frameworks to foster a deeper understanding of the abstract principles governing lexical combinations.

C. Concept-Based Instruction: Sociocultural Foundations and Metalinguistic Development

Concept-Based Instruction (CBI), grounded in Vygotskian sociocultural theory, develops learners' conceptual understanding through systematic mediation and conceptual scaffolding (Lantolf & Thorne, 2006). Unlike traditional approaches that present surface-level rules, CBI provides principled explanations that facilitate generalization through internalization. Scientific concepts transcend memorization, enabling conscious control over linguistic choices (Negueruela, 2008).

To illustrate CBI for collocation instruction, consider teaching verb-noun collocations with 'research.' Traditional instruction might list correct forms (conduct research, carry out research) and incorrect ones (do research, make research). In contrast, CBI operates through three interconnected stages:

1. Conceptualization: Present the underlying concept that academic English employs specialized verbs conveying precision and formality. The verb conduct emphasizes systematic, methodical processes characteristic of scholarly work, while do and make lack the semantic specificity required for the academic register. Learners understand the principle: academic discourse selects verbs based on semantic precision and register appropriateness.

2. Materialization: Provide visual representations and systematic categorization. For instance, a semantic formality scale (do → carry out → conduct) illustrates register gradation. Categorization schemas might group verbs by academic function: research activities (conduct, undertake), data handling (collect, analyze), and knowledge dissemination (present, publish). These external tools mediate between learners and abstract linguistic patterns.

3. Verbalization: Engage metalinguistic reflection through guided questions: "Why is conduct more appropriate than do in academic writing?" "What semantic features make certain verb-noun combinations register-appropriate?" Learners articulate principles in their own words, transforming implicit knowledge into conscious understanding (Van Compernolle, 2014).

This systematic scaffolding addresses limitations of meaning-focused approaches by developing metalinguistic awareness essential for accurate production. Empirical evidence demonstrates that concept-based collocation instruction outperforms conventional methods in both receptive knowledge and productive accuracy (Nguyen & Webb, 2017). Recent studies further show that combining CBI with communicative practice—such as task-based or output-oriented activities—optimizes learning outcomes by uniting conceptual understanding with contextualized production (Lantolf, et al., 2020; Van Compernolle & Henery, 2014).

D. Justification for Integration: Addressing Persistent Gaps

Contemporary research demonstrates that neither TBI nor CBI alone results in comprehensive collocational competence. González-Fernández and Schmitt's (2020) meta-analysis reveals consistent recognition-production disparities across L1 backgrounds, with productive deficits particularly pronounced for academic collocations. Vietnamese EFL contexts exemplify these challenges. Nguyen and Webb's (2017) investigation identifies a significant gap between receptive recognition (82%) and productive deployment (53%), highlighting a persistent divide between

declarative and procedural knowledge. Vo's (2024) corpus-based analysis reveals systematic errors resulting from direct translation patterns.

Contemporary SLA theory provides foundations for integration. Ellis's (2005b) Interface Position posits that explicit knowledge can facilitate implicit acquisition when appropriately integrated with meaningful practice. Schmidt's (2001) Noticing Hypothesis suggests conscious attention to formal features enhances acquisition while remaining compatible with communicative principles. The New London Group's (1996) multiliteracies framework (Cazden et al., 1996; Cope & Kalantzis, 2016) provides comprehensive foundations for integrated instruction through four knowledge processes: experiencing, conceptualizing, analyzing, and applying. This framework transcends additive combinations by establishing systematic pedagogical sequences honoring both cognitive and sociocultural SLA perspectives.

E. An Integrated TBI-CBI Framework for Academic Collocation Learning

Building on the theoretical foundations and empirical evidence presented earlier, this study proposes an integrated instructional framework that systematically combines TBI and CBI principles and activities. As illustrated in Figure 1, the framework operationalizes multiliteracies pedagogy through structured phases that address the documented limitations of singular approaches.

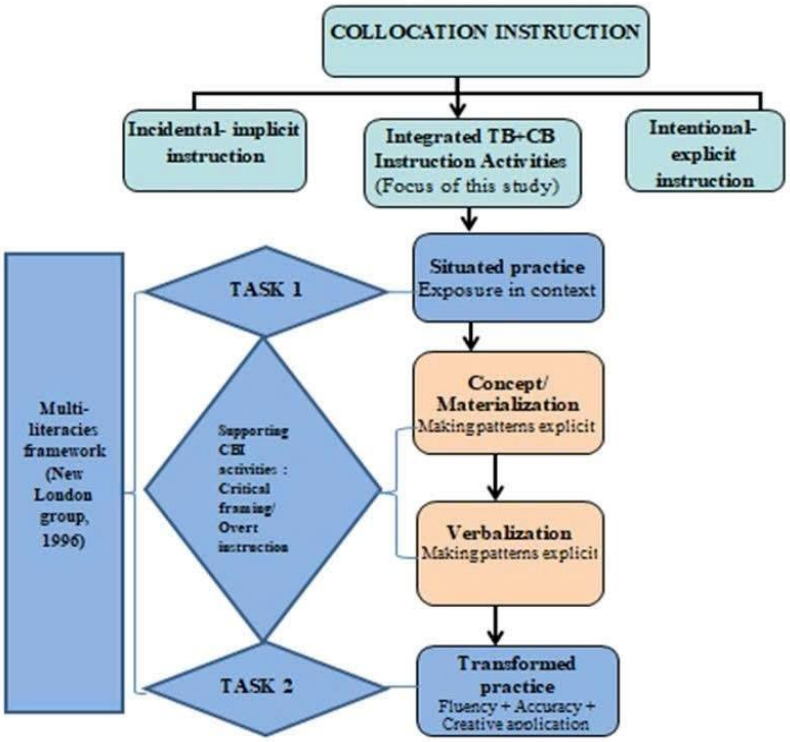

Figure 1. An Integrated TBI-CBI Instructional Model for Academic Collocation Learning
(Adapted from the New London Group's multiliteracies framework, Cazden et al., 1996)

The framework begins with Task 1 (Situated Practice), in which learners engage in authentic academic tasks that involve target collocations in meaningful contexts, establishing form-meaning mappings through communicative necessity. The subsequent conceptualization and materialization stages render patterns explicit through guided reflection and visual representations, thereby fostering metalinguistic awareness, which is essential for generalization. Verbalization involves systematic externalization through metalinguistic discussion and rule formulation, facilitating the development of conscious awareness. Critical Framing highlights cross-linguistic contrasts and register-specific constraints, addressing documented L1 interference. The culminating Transformed Practice phase (Task 2) integrates advanced communicative tasks that require the creative deployment of internalized knowledge within novel academic contexts.

This recursive model promotes a dynamic interplay among input, reflection, and output, addressing documented gaps between acquired knowledge and real-time performance (Morgan-Short et al., 2012). The framework reflects task-based instruction principles (Ellis, 2003; Long, 2014), incorporating systematic conceptual development and offering theoretically grounded, empirically informed approaches to the development of academic collocation. The framework's innovation lies not in the additive combination of techniques but in the systematic synthesis of a paradigm that addresses persistent challenges through principled pedagogical design, providing robust foundations for the empirical investigation of integrated instructional approaches in tertiary EFL contexts.

III. Research Methodology

A. Research Design

This study employed an explanatory sequential mixed-methods design to examine the impact of integrated TBI and CBI on English as a Foreign Language (EFL) learners' acquisition of academic collocations (Creswell & Plano Clark, 2017). Rooted in a pragmatist epistemology (Tashakkori et al., 2020), the design emphasized methodological complementarity and triangulation.

The quantitative phase adopted a quasi-experimental design with cluster randomization of two intact classes (Harris et al., 2006). The experimental group (n = 42) received integrated TBI–CBI instruction, whereas the comparison group (n = 31) was exposed to isolated TBI. This design preserved ecological validity and addressed unit-of-analysis issues in classroom-based research (Hedges & Rhoads, 2010). The qualitative phase utilized semi-structured interviews to explore participants' experiences. Data integration adhered to explanatory sequential principles, whereby quantitative results guided the qualitative strand (Schoonenboom & Johnson, 2017).

B. Participants

The sample consisted of 73 third-year English majors (aged 20–21) from a public university in Vietnam's Mekong Delta region. All students had completed two years of coursework aligned with the CEFR B2 level. Two intact classes of Academic Report Writing were selected, and random assignment was applied at the class level. This course was chosen for its close alignment with the study's aims, requiring discipline-specific writing tasks where collocational competence is critical.

C. Research Instruments

(a). Academic Collocation Test

The Academic Collocation Test (ACT), developed and validated by My and Loi (2025), was employed to measure receptive and controlled productive knowledge of academic collocations. The instrument was initially developed by drawing on Nation's (2001) framework and Coxhead's (2018) Academic Word List, based on corpus-based analysis of authentic academic texts. Following expert review and pilot testing (2 times) with 224 intermediate-level EFL learners, the final 50-item instrument demonstrated robust psychometric properties: high internal consistency (Cronbach's $\alpha = .916$), excellent inter-rater reliability (98% agreement), and strong construct validity evidenced through unidimensional factor structure and significant discrimination between proficiency levels. Content validity was confirmed via expert validation (CVI ≥ 0.80).

The test comprises 50 gap-fill items requiring learners to complete academic collocations within authentic sentence contexts. Each item provides the first 1–2 letters as orthographic cues to constrain responses while maintaining productive retrieval demands. Sample items include:

1. The books are **ca**_____ into beginner and advanced levels. (categorized)
2. Many scholars **d**_____ literary criticism into two categories. (divide)
3. **Dr**_____ conclusions from these findings, students could improve performance. (Drawing)
4. The term often **r**_____ to a figure of speech in literature. (refers)

Each correct response receives one point (maximum score = 50). Two independent raters scored all tests following My and Loi's (2025) scoring protocols, discrepancies (< 2% of responses) were resolved through discussion. For complete test details and development procedures, see My and Loi (2025).

Several design features minimized potential practice effects from repeated measurement. The eight-week interval between pretest and posttest reduced simple memorization while providing sufficient time for instructional effects to manifest (Schmitt, 2010; Webb, 2007). Both groups received identical test exposure at the same time points, ensuring equal distribution of any familiarity advantages. Most critically, both instructional treatments exposed students to the same 50 target collocations with equal frequency and equivalent total instructional time (400 minutes distributed across 16 sessions of 25 minutes each), differing exclusively in pedagogical approach (conceptual metaphor-based scaffolding vs. corpus-based noticing instruction). This design ensures that observed score differences reflect genuine instructional effectiveness rather than differential item exposure or test familiarity effects.

(b). Semi-Structured Interviews

Semi-structured interviews were conducted with a purposive subset of participants representing both gender distribution and performance levels. The interview protocol combined predetermined open-ended questions with follow-up prompts (Kallio et al., 2016). Topics included perceptions of instructional activities, perceived benefits and challenges, self-reported confidence, and experiences with out-of-class workload and time investment across different activities. All interviews were audio-recorded, transcribed verbatim, and coded inductively following Braun and Clarke's (2006) thematic analysis. Trustworthiness was ensured through member checking, inter-coder reliability checks, and negative case analysis (Nowell et al., 2017).

D. Instructional Design and Implementation

Two instructional approaches were compared, both following task-based principles but differing in their treatment of collocational knowledge:

1. **Integrated TBI–CBI**: Combined communicative task orientation (Ellis, 2003) with conceptual scaffolding (Lantolf & Thorne, 2006)
2. **Isolated TBI**: Conventional task-based pedagogy without explicit conceptual mediation

(a). Detailed Illustration of Pedagogical Differences

To illustrate how the same content was treated differently across conditions, consider instruction on verb-noun collocations related to research methodology (e.g., *conduct research*, *collect data*, *analyze findings*). Both groups followed identical overall structures but differed critically in the 20-minute Preparation Phase:

Integrated TBI–CBI Approach:

- **Task 1 - Situated Practice (5 minutes)**: Students examined authentic academic excerpts linking target collocations to specific rhetorical functions (e.g., methodology descriptions, classification statements) in research writing, establishing initial form-meaning connections through contextualized exposure.
- **Preparation Phase (20 minutes)**: Students received explicit conceptual instruction explaining that academic English employs semantically specific verbs to convey methodological precision. A concept map visually organizes collocations by semantic category (research design: *conduct*, *undertake*, data handling: *collect*, *gather*, analytical processes: *analyze*, *examine*). Through guided verbalization, students articulated underlying principles: "Why does academic writing prefer *conduct research* over *do research*?" "What semantic features make certain verbs more appropriate for academic contexts?" This systematic scaffolding developed metalinguistic awareness of register appropriateness and semantic specificity, enabling learners to understand *why* particular collocations are conventionally paired.
- **Main Task - Transformed Practice (20 minutes)**: Students composed a 150-word methodology section incorporating target collocations, applying conceptual understanding to authentic writing under communicative pressure.
- **Post-Task (5 minutes)**: Peer feedback emphasized collocational accuracy and appropriateness, reinforced by explicit reference to conceptual frameworks discussed in preparation.

Isolated TBI Approach:

- **Task 1 - Situated Practice (5 minutes)**: Students examined authentic academic excerpts linking target collocations to specific rhetorical functions (identical to experimental group).
- **Preparation Phase (20 minutes)**: Students read authentic research articles containing target collocations, completing noticing activities to identify verb-noun patterns. Brief explanations highlighted correct forms (*conduct research*, *collect data*) with minimal elaboration. Instruction focused on recognition and form-meaning associations without systematic conceptual scaffolding, visualization of semantic relationships, or metalinguistic verbalization of underlying principles.
- **Main Task - Transformed Practice (20 minutes)**: Students composed a 150-word methodology section incorporating target collocations (identical task to experimental group).
- **Post-Task (5 minutes)**: Peer feedback focused on meaning and task completion, with attention to collocational form as needed.

Both groups engaged with identical target collocations and equivalent task complexity, and with the exact same total instructional time (50 minutes per session), differing only in the depth of conceptual mediation during the 20-minute Preparation Phase.

(b). Comparative Framework

Table 1 summarizes key instructional differences:

TABLE 1
COMPARATIVE FRAMEWORK: INTEGRATED TBI-CBI VERSUS ISOLATED TBI ACTIVITIES

Instructional Element	Integrated TBI–CBI	Isolated TBI
Knowledge focus	Balanced emphasis on conceptual understanding and practical use	Predominantly practical application
Collocation presentation	Organized in semantic and conceptual networks	Introduced within task contexts
Use of visual tools	Frequent use of concept maps and organizers	Limited or absent
Explanation type	Explicit, concept-driven explanations	Brief, task-oriented explanations
Learner verbalization	Required articulation of collocational principles	Limited to task performance
Task structure	Tasks embedded in conceptual frameworks	Tasks as primary learning units

(c). Lesson Structure and Time-on-Task Control

The intervention lasted eight weeks, with one 50-minute experimental session per week embedded within the five-period Academic Report Writing course. Both groups received identical total instructional time (400 minutes over eight weeks) and equivalent task complexity. Each experimental session followed a four-phase structure:

- **Task 1 - Situated Practice (5 minutes)**: Identical for both groups—linking target collocations to rhetorical functions in academic writing (e.g., classification, methodology description) through examination of authentic excerpts.

- **Preparation Phase (20 minutes)**: Differed in pedagogical approach (conceptual scaffolding vs. noticing activities) but maintained equal duration.
- **Main Task - Transformed Practice (20 minutes)**: Identical tasks requiring academic text production (150-200 words) under communicative pressure (Skehan, 1998; Lambert et al., 2021).
- **Post-Task Phase (5 minutes)**: Peer feedback and reflection (similar structure, differing in depth of metalinguistic focus).

Out-of-class time was equivalent and standardized across both groups. Students attended four additional 50-minute periods per week (200 minutes) for regular Academic Report Writing coursework, which was identical for both groups and independent of the experimental intervention. These regular sessions followed the standard curriculum covering academic writing principles, genre analysis, and composition practice. The experimental treatment occurred only during the designated one-period-per-week intervention, ensuring that both groups received equal exposure to general academic writing instruction.

During the experimental sessions, both groups worked with the same 50 target collocations over the eight weeks. The Integrated TBI-CBI group's concept-mapping and metalinguistic verbalization activities during the 20-minute Preparation Phase replaced (rather than supplemented) the Isolated TBI group's extended noticing and recognition activities, thereby maintaining exact workload equivalence.

(d). Target Collocations and Sequence

The instructional sequence targeted 50 academic collocations (25 grammatical, 25 lexical), selected through corpus analysis and expert judgment for frequency and relevance in academic writing (Coxhead, 2018; Hyland, 2004; Swales & Feak, 2012). Both groups encountered all 50 collocations with equal frequency across eight functional categories aligned with research article structure (e.g., classification/definition, methodology, results, discussion). This organization promoted both lexical development and genre-specific competence.

1. Data Collection and Analysis

Data were collected over 15 weeks, including pretests (Week 1), an 8-week instructional intervention with systematic observations, posttests (Week 10), and semi-structured interviews. Analysis followed a three-phase convergent mixed-methods approach (Creswell & Plano Clark, 2017). First, quantitative data were coded and screened while interview transcripts were prepared. Second, descriptive statistics, paired-sample t-tests, and repeated-measures ANOVA were conducted with effect sizes reported (Cohen's d, partial η^2) (Field, 2018), while qualitative data underwent thematic analysis (Braun & Clarke, 2006) validated through member checking and inter-coder agreement. Finally, qualitative themes were mapped against quantitative findings to identify convergences and explanatory mechanisms.

2. Ethical Considerations

Institutional review board approval was obtained prior to data collection. Participants received detailed information sheets and provided informed consent. Participation was voluntary, with withdrawal rights maintained throughout (Cohen et al., 2018). All data were anonymized and reported in aggregate or under pseudonyms to ensure confidentiality (Creswell & Creswell, 2018).

IV. Results

A. The Effects of Instructional Activities on EFL Academic Collocation Learning

The Academic Collocation Test demonstrated strong internal consistency (Cronbach's $\alpha = .916$), providing evidence of its reliability in measuring collocational knowledge.

(a). Baseline Equivalence and Pre-Intervention Performance

Table 2 presents descriptive statistics for the total sample (n = 73). The overall mean score of 6.37 out of 50 (12.74%) indicated minimal initial knowledge of academic collocation, with comparable performance across grammatical and lexical collocations.

TABLE 2
PRE-TEST PERFORMANCE: TOTAL SAMPLE AND GROUP COMPARISON

Measure	Items	Total Sample (n=73)	Integrated (n=42)	TBI (n=31)	t-test
Total Collocations	50	M=6.37, SD=6.85	M=6.43, SD=5.72	M=6.29, SD=8.24	t(71)=0.08, p=.936, d=0.02
Grammatical Collocations	25	M=3.26, SD=3.70	M=3.24, SD=2.98	M=3.29, SD=4.56	-
Lexical Collocations	25	M=3.11, SD=3.43	M=3.19, SD=3.09	M=3.00, SD=3.89	-

The independent-samples t-test confirmed that there were no statistically significant baseline differences, establishing group homogeneity and validating internal validity.

(b). Post-Intervention Performance and Effect Sizes

As shown in Table 3, both groups demonstrated significant improvements, though with markedly different magnitudes. The Integrated Group exhibited considerable effects across all collocation types (total: d=3.77, grammatical: d=3.37, lexical: d=3.96), substantially exceeding the TBI Group's significant effects (total: d=1.49, grammatical: d=1.30, lexical: d=1.63). Additionally, lower post-test standard deviations in the Integrated Group indicated more consistent learning outcomes.

TABLE 3
PERFORMANCE COMPARISON BETWEEN INSTRUCTIONAL APPROACHES

Measure	**Integrated Group**					**TBI Group**				
	Pre-test (Mean/SD)		Post-test (Mean/SD)		Improvement (Cohen's d)	Pre-test (Mean/SD)		Post-test (Mean/SD)		Improvement (Cohen's d)
Total	6.43	5.72	38.17	10.44	**3.77**	6.29	8.24	26.19	16.97	**1.49**
Grammatical Collocations	3.24	2.98	18.43	5.63	**3.37**	3.29	4.56	11.84	8.13	**1.30**
Lexical Collocations	3.19	3.09	19.74	5.04	**3.96**	3.00	3.89	14.35	9.04	**1.63**

(c). Individual Differences: Correlational Analysis

To verify that pre-existing proficiency differences did not confound the intervention effects, Pearson correlation analyses were conducted between participants' pre-test scores and their learning gains (post-test minus pre-test scores) within each group (Dimitrov & Rumrill, 2003). This analysis addresses potential ceiling or floor effects, in which high or low initial proficiency may systematically constrain improvement (Hake, 1998).

As shown in Table 4, no significant correlations emerged in either group. The Integrated group showed a negligible negative correlation ($r = –.063$, $p = .690$), while the TBI group demonstrated a weak positive correlation ($r = .142$, $p = .445$). These non-significant relationships confirm that learning gains were independent of initial proficiency levels, supporting the validity of comparing post-test scores across groups. Both instructional approaches proved equally beneficial for learners across the proficiency spectrum.

TABLE 4
CORRELATIONS BETWEEN PRE-TEST SCORES AND LEARNING GAINS

Group	**R**	**P**
Integrated	–.063	.690
TBI	.142	.445

B. Thematic Analysis of Student Perceptions and Evaluations of the Integrated TBI-CBI Approach

(a). Overview of Student Responses

Interview data collected from seven participants revealed predominantly positive perceptions of the integrated Task-Based Language Teaching (TBLT) and Content-Based Instruction (CBI) approach to academic collocation learning. Students reported notable gains in collocation awareness, contextual usage, and confidence in academic writing. However, challenges were identified concerning collaborative dynamics, instructional pacing, and vocabulary retention.

Participant 1 explicitly connected the instructional content to academic needs, noting: *"I feel excited because, along with learning those 50 academic collocations, I am also taking a scientific research course. I expect to learn useful phrases to apply in my proposal and research mapping."* This illustrates the successful transfer of knowledge between language instruction and academic writing tasks. Nonetheless, the participant also expressed difficulties with group activities, stating: *"In the group, I only know a few members well… It makes collaboration difficult".*

Similarly, Participant 2 described initial anxiety due to methodological unfamiliarity: *"I was very confused and scared because this was my first time learning in this way."* However, this anxiety diminished as the practical benefits of the course became apparent: *"It supports me in writing scientific reports… I confidently registered for a research project next semester."* These accounts suggest that the integrated approach holds transformative potential, particularly once learners overcome initial apprehension.

(b). Perceived Strengths of the Integrated Approach

1. Pedagogical Effectiveness and Contextual Learning

Students consistently endorsed the integrated TBLT-CBI approach for its contextualized and interactive pedagogy. Many appreciated how the instruction aligned with their academic and professional goals. Participant 1 reflected: *"Some of the collocations I learned, I actually used in my proposal, such as 'major concern'".*

Participant 2 highlighted the benefits of collaborative revision: *"The most effective activity for me was the group work to revise our writing. In this activity, we applied newly introduced collocations to our research topic."* These responses underscore how the integrated framework supports both the acquisition and immediate application of academic collocations in discipline-specific writing tasks.

2. Systematic Instructional Organization

The structured delivery of collocations, organized around academic functions such as classification, results, and data collection, was widely perceived as a key strength. Participants found that such thematic categorization aided comprehension and retention. Participant 1 stated: *"When learning collocations related to classification, we broke down the topic into subcategories and identified relevant phrases. This structured approach made learning more organized and meaningful".*

Participant 4 emphasized the engagement fostered by interactive correction sessions: *"During the correction session, the whole class participated in checking answers, making the learning process more dynamic and interactive."* These findings indicate that systematic instructional design not only enhanced lexical retention but also created a participatory classroom environment.

3. Collaborative Learning and Peer Support

Collaborative tasks, especially those involving joint writing or problem-solving, were considered valuable for reinforcing lexical knowledge and promoting peer scaffolding. Participant 5 remarked: *"Studying collocations alone can be tedious, but learning in groups makes it more engaging and helps me remember them better".*

Participant 3 similarly observed the development of communication skills: *"Participating in group activities encouraged me to interact more, discuss with classmates, and determine the most appropriate collocations for different contexts."* Such comments illustrate how collaborative tasks can simultaneously foster lexical competence and interpersonal communication in academic contexts.

(c). Identified Limitations of the Integrated Approach

1. Collaborative Learning Challenges

Despite overall approval of group-based tasks, some participants noted issues with uneven participation and limited cohesion. For example, Participant 1 noted: *"Working in a group can be challenging because I only know a few of my teammates well… making collaboration difficult".*

Participant 6 highlighted imbalanced contributions: *"In large groups, some students are overly active and take over the discussion, while others remain passive and contribute little."* Such issues suggest that the benefits of collaboration may be undermined if group composition and task design are not carefully managed.

2. Collocation Acquisition and Retention Difficulties

While students valued the exposure to academic vocabulary, several reported difficulties in mastering and retaining the target collocations due to lexical unfamiliarity and cognitive overload. Participant 2 observed: *"The teacher introduced many collocations I had never known before, and I struggled with pronunciation".*

Participant 7 echoed this challenge: *"Some words were too advanced for me to understand completely… I cannot remember all the collocations taught, only about two-thirds."* These comments suggest that although the input was academically relevant, the density and complexity of the lexical items posed challenges for some learners, particularly those with limited vocabulary control.

3. Temporal Constraints and Cognitive Load

Time constraints emerged as a recurrent theme. Participants expressed concern about the limited in-class time available for both input and output tasks. Participant 5 commented: *"In a 15–30 minute activity with multiple collocations, we don't have enough time to complete the tasks".*

Participant 3 noted: *"Some collocations have similar meanings but are used differently, so memorizing them and distinguishing their usage requires more time."* These reflections highlight the importance of instructional pacing and the necessity of sufficient processing time to facilitate deeper learning.

Overall, student feedback confirms the pedagogical effectiveness of the integrated TBLT-CBI approach in promoting academic collocation knowledge and use. The combination of task-based learning with content-focused instruction provided learners with meaningful, contextually grounded practice, contributing to improved writing performance and increased academic confidence.

Nevertheless, several refinements are recommended to optimize the instructional model:

1. **Group Management**: More deliberate group formation and role assignment may mitigate unequal participation and enhance collaboration.
2. **Vocabulary Recycling**: Incorporating more retrieval-based and spaced repetition activities may enhance collocation retention and alleviate cognitive load.
3. **Instructional Pacing**: Reducing the number of collocations introduced per session and extending class duration could support more sustained engagement with target items.
4. **Balanced Input and Output**: Increasing opportunities for oral production and written practice, alongside conceptual instruction, may strengthen both receptive and productive skills.

By addressing these areas, the integrated TBLT-CBI framework can be further refined to better support learners' lexical development and academic writing performance. Triangulation across quantitative and qualitative data sources revealed convergent patterns. Participants attributed The Integrated Group's superior outcomes ($d = 3.77$) to systematic organization, contextualized practice, and conceptual scaffolding. However, qualitative data also revealed

implementation challenges not evident in quantitative results alone: collaborative dynamics issues (uneven participation, limited team familiarity) and temporal constraints emerged across all performance levels. The gap between perceived utility (M = 4.48) and application confidence (M = 3.85) reinforces quantitative findings of substantial gains while highlighting the need for extended consolidation to support procedural knowledge development.

V. Discussion

This study investigated the effects of integrating concept-based instruction (CBI) and task-based instruction (TBI) on EFL learners' academic collocational competence. The integrated approach demonstrated substantial effect sizes (total: d = 3.77, grammatical: d = 3.37, lexical: d = 3.96), substantially exceeding the TBI-only group's significant but more moderate effects (d = 1.49, 1.30, 1.63), indicating that the integrated model generated more robust and consistent improvements.

A. Integration of Cognitive and Social Dimensions

The findings support the proposition that collocational competence develops optimally through instruction targeting both cognitive depth and contextualized practice. The explicit conceptualization phase aligns with Schmidt's (2001) Noticing Hypothesis and DeKeyser's (2007) skill-acquisition framework, facilitating the transition from declarative to procedural knowledge. Through concept-based mediation, learners internalized syntagmatic and semantic constraints (Negueruela & Lantolf, 2006), while subsequent task-based cycles promoted authentic use, negotiation, and feedback (Long, 2014; Willis & Willis, 2007). This cognitive-social synergy establishes form-meaning foundations consolidated through communicative practice.

The integrated model's superiority corresponds with evidence that form-focused instruction embedded in communicative contexts yields stronger lexical learning than purely implicit exposure (Ellis, 2005a; Webb & Nation, 2017). By enabling systematic sequencing from metalinguistic awareness to task-based practice, the approach extends Peters' (2016) findings on productive collocation use following focused input. The results address the recognition-production gap highlighted by Siyanova-Chanturia and Pellicer-Sanchez (2018) and González-Fernández and Schmitt (2020), with the integrated group's effect sizes indicating more stable form-meaning mappings. Correlational analysis revealed no significant relationship between pre-test scores and gains in either group (Integrated: r = -.063, p = .690, TBI: r = .142, p = .445), suggesting both approaches benefited learners uniformly across proficiency levels, though the integrated approach produced substantially larger overall gains.

B. Theoretical and Pedagogical Implications

The findings support an interface position between explicit and implicit knowledge (Ellis, 2005a), with learners' ability to generalize collocational patterns suggesting that systematic explicit instruction can facilitate spontaneous access to declarative knowledge, a process consistent with sociocultural perspectives on concept-mediated learning (Lantolf & Thorne, 2006). The observed generalization aligns with Sweller et al.'s (2011) cognitive load theory, which posits that schema construction through structured explicit teaching reduces processing demands during language production. At the discourse level, results resonate with Hyland's (2008) view of academic literacy as socially situated practice, with meaning-making tasks anchoring collocation learning within authentic disciplinary communication (Stoller, 2004).

Three pedagogical principles emerge: (1) Sequenced design matters—concept-based explanation establishes semantic and syntactic prototypes before communicative deployment, (2) Tasks must recycle conceptual content—activities should require meaningful manipulation of target collocations within varied discourse contexts, (3) Teacher mediation is pivotal—instruction depends on dialogic scaffolding linking forms to their underlying conceptual meanings (Van Compernolle, 2014). These principles align with Cope and Kalantzis's (2016) multiliteracies pedagogy, which emphasizes the design of meaning through multiple semiotic systems.

However, qualitative findings revealed implementation challenges. Collaborative dynamics issues, including uneven participation and limited team familiarity, suggest the need for careful group composition and explicit attention to cooperative learning structures. Temporal constraints indicate that pacing adjustments and extended practice opportunities are necessary for deeper consolidation and bridging conceptual understanding with productive deployment in learners' own academic writing.

C. Limitations and Future Directions

Several limitations warrant acknowledgment: the eight-week duration restricts claims about long-term retention, the discrete-item test format may not fully capture contextualized language use, the single institutional setting limits generalizability, the absence of an explicit-instruction-only control group constrains causal inferences, and potential Hawthorne effects and individual differences could have influenced performance.

Future research should explore the model's operation across proficiency levels and linguistic domains through longitudinal designs tracing durability and transferability to extended writing tasks (Wray, 2002; Nation, 2013). Classroom-based studies examining teachers' mediational strategies and learners' self-regulation processes would refine pedagogical implementation.

VI. Conclusion

This study demonstrates that an integrated cognitive-social instructional sequence significantly enhances EFL learners' academic collocational competence compared to task-based instruction alone. The substantial effect sizes (d = 3.77, 3.37, 3.96) attest to the effectiveness of combining concept-based instruction with task-based performance, addressing the persistent recognition-production gap identified in previous research.

The findings suggest that conceptual awareness and contextualized use function as complementary mechanisms: learners internalize rule-based knowledge through explicit conceptualization and appropriate this knowledge through authentic communicative engagement. This interaction represents a generalizable principle for fostering complex language abilities, operationalizing the multiliteracies framework through systematic sequencing of experiencing, conceptualizing, analyzing, and applying.

Despite acknowledged limitations, the study's robust effect sizes and triangulated data provide compelling evidence for the integrated approach's effectiveness, offering a principled alternative to the dichotomy between explicit vocabulary instruction and communicative practice. Future research exploring the model's scalability across diverse contexts will further determine its broader applicability in EFL/ESL academic writing instruction.

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