



АКТУАЛЬНІ МЕТОДИКИ – ЕФЕКТИВНА ПРАКТИКА

DOI <https://doi.org/10.37406/2521-6449/2026-1-20>

UDC 37.016:811.111

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INQUIRY-BASED LEARNING IN ENGLISH LANGUAGE TEACHING: THE 5E INSTRUCTIONAL MODEL AS A PEDAGOGICAL FRAMEWORK

Abstract

Contemporary English Language Teaching (ELT) increasingly emphasizes learner-centered instruction, communicative competence, and the development of higher-order thinking skills. In response to these priorities, inquiry-based instructional frameworks offer valuable pedagogical alternatives to traditional teacher-centered approaches. This article examines the adaptation of the 5E instructional model – originally developed for STEM education – to the context of English as a Foreign Language (EFL) instruction. Grounded in constructivist learning theory, the 5E model structures learning through five phases: Engage, Explore, Explain, Elaborate, and Evaluate. The study explores how this model supports student engagement and critical thinking in ELT classrooms. The 5E instructional model provides a theoretically grounded and empirically supported framework for promoting meaningful learning, critical thinking, and sustained student engagement. By structuring instruction around inquiry, collaboration, and reflection, the model supports deep conceptual understanding while fostering cognitive, social, and emotional competencies essential for lifelong learning. When implemented with pedagogical intentionality and supported by evidence-based practices, the 5E model offers a powerful approach to contemporary teaching and learning. The structure of the 5E model is particularly well suited to promoting higher levels of engagement, as it integrates inquiry, collaboration, and reflection throughout the learning cycle. Engaged students not only achieve better academic outcomes but also develop transferable skills such as communication, teamwork, and self-regulation, which contribute to long-term educational and professional success. The article argues that the 5E model aligns closely with communicative language teaching principles and provides a coherent framework for promoting meaningful interaction, learner autonomy, and deep language processing.

Key words: *5E instructional model, English language teaching, student engagement, critical thinking, inquiry-based learning, EFL.*

Introduction. English Language Teaching has undergone a significant pedagogical shift over recent decades, moving away from grammar-focused, teacher-dominated instruction toward communicative, learner-centered approaches. This transformation reflects broader educational goals that prioritize not only linguistic accuracy but also communicative competence, learner autonomy, and critical thinking. However, despite widespread acceptance of these principles, classroom practices often remain dominated by explanation, repetition, and controlled exercises that limit student engagement and cognitive involvement.

The purpose of the article is to explore how the 5E instructional model can be meaningfully applied in English Language Teaching and to show how this inquiry-based framework supports student engagement and the development of critical thinking in EFL classrooms. The article seeks to connect the theoretical foundations of the 5E model with communicative language teaching principles and to demonstrate how its stages can be adapted to everyday classroom practice. By doing so, the study aims to highlight practical ways in which the 5E model can help learners use language more actively, reflect on their learning, and develop deeper understanding through interaction and inquiry.

Main body. The 5E instructional model is firmly rooted in constructivist learning theory, which conceptualizes learning as an active and socially mediated process through which learners construct knowledge by interacting with ideas, experiences, and others [2]. In contrast to traditional transmission-based instruction, where knowledge is delivered directly from teacher to student, the 5E model positions learners as active participants in meaning-making. Students are encouraged to question, investigate, reflect, and revise their understanding over time, while teachers function as facilitators who design learning experiences, guide inquiry, and support conceptual development. The model is structured around five interconnected phases – Engage, Explore, Explain, Elaborate, and Evaluate – that together form a coherent and cyclical learning process. This framework has been widely implemented in STEM education, particularly in science and mathematics classrooms, where empirical research consistently demonstrates its effectiveness in promoting conceptual understanding, knowledge retention, and transfer of learning when compared to traditional textbook-centered approaches [5].

A defining strength of the 5E model lies in its alignment with how learners naturally acquire understanding. Learning within this framework unfolds gradually, as students build new knowledge upon existing cognitive structures. Each phase of the 5E cycle contributes to this process by supporting different aspects of learning, ranging from motivation and curiosity to application and assessment. Rather than isolating learning into discrete lessons or activities, the model emphasizes continuity and coherence, allowing students to revisit ideas, refine their thinking, and deepen understanding through repeated engagement with core concepts. This cyclical structure supports conceptual change by providing multiple opportunities for learners to confront misconceptions, test ideas, and integrate new information meaningfully.

The Engage phase serves as the critical entry point to the learning cycle and plays a central role in establishing both cognitive readiness and emotional investment. During this phase, teachers seek to activate students' prior knowledge, uncover existing beliefs or misconceptions, and stimulate curiosity about the topic. Engagement, in this context, should not be reduced to entertainment or surface-level attention-getting strategies. Instead, it involves creating intellectual tension that invites inquiry and motivates learners to seek understanding. Carefully designed questions, real-world problem scenarios, demonstrations, or short discussions can encourage students to articulate what they already know and what they find puzzling. By validating students' initial ideas and encouraging open expression, teachers create a classroom environment in which learners feel safe to explore uncertainty, which is essential for deep learning and conceptual growth [10].

Following engagement, the Explore phase provides students with opportunities to investigate concepts through direct experience and collaborative inquiry. At this stage, students interact with materials, data, or scenarios that allow them to test predictions, observe patterns, and generate tentative explanations. Learning is driven by inquiry rather than explanation, and students are encouraged to work together, compare interpretations, and negotiate meaning through dialogue. This phase is particularly important for fostering productive struggle, as students encounter challenges that require persistence, reasoning, and creativity. The teacher's role during exploration is deliberately limited to observation, encouragement, and strategic questioning, allowing students to take ownership of the learning process while still receiving guidance when necessary. Research indicates that such inquiry-based experiences promote deeper cognitive engagement and stronger conceptual understanding by enabling learners to actively construct meaning rather than passively receive information [2]. The inquiry processes embedded in the 5E model are closely linked to the development of critical thinking. Critical thinking involves the ability to analyze information, evaluate evidence, consider alternative perspectives, and draw reasoned conclusions based on logic rather than memorization [9]. Within the 5E framework, students are repeatedly encouraged to justify their reasoning, revise explanations in light of new evidence, and reflect on how their understanding evolves across learning phases. These practices cultivate habits of mind such as curiosity, flexibility, and analytical reasoning. The integration of curiosity, creativity, communication, and collaboration further strengthens critical thinking by encouraging learners to explore ideas deeply, express their thinking clearly, and engage with diverse viewpoints. As a result, students develop transferable skills that extend beyond academic contexts and support problem-solving in real-world situations.

Student engagement functions as a key mechanism through which the 5E instructional model influences learning outcomes. Engagement is widely understood as a multidimensional construct encompassing behavioral, cognitive, and emotional dimensions [4]. Behavioral engagement refers to observable participation in learning activities, persistence in completing tasks, and adherence to classroom norms. Cognitive engagement reflects students' investment in understanding complex ideas, using deep learning strategies, and persisting through intellectual challenges. Emotional engagement encompasses learners' interest, sense of belonging, and emotional connection to learning. Research consistently demonstrates that students who are engaged across these dimensions achieve higher academic outcomes and are more likely to persist in their studies.

In addition to these dimensions, engagement can be understood hierarchically, ranging from minimal compliance to intellectual engagement, where students are intrinsically motivated and actively employ higher-order thinking skills [10]. The structure of the 5E model is particularly effective in promoting higher levels of engagement because it integrates inquiry, collaboration, and reflection throughout the learning process. Students are not merely completing tasks to meet external expectations but are actively involved in constructing understanding that they perceive as meaningful and relevant. This shift from compliance to authentic engagement supports the development of self-regulated learners who take responsibility for their learning and remain motivated over time.

From a practical perspective, effective implementation of the 5E instructional model requires intentional instructional design and sustained teacher involvement. Active learning strategies, including discussion, inquiry-based tasks, and collaborative problem-solving, are essential for maintaining engagement and supporting deep conceptual understanding [5].

Formative assessment embedded throughout the learning cycle allows teachers to monitor student understanding and provide timely, process-oriented feedback that supports self-regulation and motivation [6]. Such feedback is most effective when it emphasizes learning strategies and effort rather than outcomes alone.

Collaborative learning environments further enhance engagement by fostering peer interaction and shared responsibility for learning. Through collaboration, students are exposed to diverse perspectives, refine their reasoning, and develop communication and teamwork skills that are essential for academic and professional success [8]. Teacher presence also plays a critical role in sustaining engagement. Teachers who demonstrate enthusiasm, respond to student contributions, and actively participate in classroom discourse help create a supportive learning climate that encourages risk-taking and persistence [1]. In digital and blended learning contexts, adaptive technologies and personalized learning pathways can further support engagement by addressing individual differences in readiness, pace, and interest [6].

In conclusion, the 5E instructional model represents a comprehensive and research-informed approach to teaching and learning that aligns closely with contemporary theories of constructivism, engagement, and critical thinking. By structuring instruction around inquiry, collaboration, and reflection, the model supports deep conceptual understanding while fostering cognitive, social, and emotional competencies essential for lifelong learning. When implemented thoughtfully and supported by evidence-based instructional practices, the 5E model not only enhances academic achievement but also prepares learners to become reflective, engaged, and independent thinkers capable of navigating complex learning and real-world challenges.

Inquiry-based instructional models offer a promising response to this challenge. Among them, the 5E instructional model provides a structured yet flexible framework that encourages learners to actively construct knowledge through experience, interaction, and reflection. Although the model has been extensively applied in STEM education, its potential in ELT contexts remains underexplored. This article seeks to address this gap by examining how the 5E model can be adapted to foreign language instruction to enhance student engagement and support the development of critical thinking alongside language proficiency.

Constructivist learning theory posits that learners actively construct meaning by integrating new information with existing knowledge through social interaction and personal experience. In language learning, this perspective aligns closely with sociocultural and communicative theories, which view language as a tool for meaning-making rather than a set of isolated structures. Learning occurs most effectively when students use language to explore ideas, negotiate meaning, and reflect on their understanding.

From this standpoint, language classrooms should provide opportunities for authentic interaction, problem-solving, and collaborative inquiry. The teacher's role shifts from transmitter of knowledge to facilitator of learning, guiding students as they engage with language in meaningful contexts.

The 5E instructional model operationalizes constructivist principles through a sequence of five interrelated phases: Engage, Explore, Explain, Elaborate, and Evaluate [2]. Each phase supports a distinct aspect of learning while contributing to a coherent inquiry cycle. In ELT contexts, these phases can be aligned with communicative language teaching by focusing on purposeful language use, interaction, and reflection rather than isolated form practice.

The model's emphasis on curiosity, exploration, and reflection makes it particularly suitable for developing critical thinking skills, which are increasingly recognized as essential components of language competence.

Student engagement is a multidimensional construct encompassing behavioral, cognitive, and emotional dimensions [4]. In language classrooms, behavioral engagement may involve participation in speaking activities, cognitive engagement reflects investment in meaning-making and strategy use, and emotional engagement relates to learners' confidence, motivation, and sense of belonging.

Critical thinking in ELT involves analyzing texts, evaluating viewpoints, making inferences, and articulating reasoned opinions in the target language. These skills require more than linguistic knowledge; they demand opportunities for inquiry, discussion, and reflection. The 5E model supports this process by embedding critical thinking into the learning cycle rather than treating it as an additional skill.

This study adopts a qualitative, classroom-based approach aimed at exploring how the 5E instructional model can be implemented in ELT and how it influences student engagement and critical thinking. The 5E model is integrated into a thematic unit focused on a communicative topic such as «Social Media and Identity». In the Engage phase, students are presented with provocative questions or short multimedia prompts designed to activate prior knowledge and stimulate discussion. During the Explore phase, learners work collaboratively with authentic texts, surveys, or problem scenarios, using English to negotiate meaning and formulate initial interpretations.

In the Explain phase, students articulate their understanding, supported by teacher scaffolding that draws attention to relevant linguistic forms, vocabulary, and discourse patterns. The Elaborate phase extends learning through tasks that require students to apply language in new contexts, such as debates, role-plays, or project-based assignments. Finally, the Evaluate phase involves both formative and reflective assessment, including self-assessment, peer feedback, and teacher observation.

The adaptation of the 5E instructional model to ELT demonstrates strong alignment with communicative language teaching principles. The Engage and Explore phases, in particular, promote meaningful interaction and lower affective barriers by emphasizing ideas and communication over immediate linguistic accuracy. Students are encouraged to use language as a tool for inquiry, which increases both cognitive and emotional engagement.

The model also supports the integration of form-focused instruction in a meaningful context. Rather than presenting grammar in isolation, linguistic features emerge naturally during the Explain phase as resources for expressing meaning. This contextualized focus on form enhances retention and transfer.

Importantly, the inquiry-based structure of the 5E model fosters critical thinking by requiring learners to analyze information, compare perspectives, and justify opinions in the target language. These practices contribute to deeper language processing and greater learner autonomy.

For language teachers, the 5E model offers a practical framework for designing lessons that balance communication, accuracy, and critical thinking. Its cyclical structure supports lesson coherence and provides clear pedagogical purpose for each activity. Teachers adopting this model should focus on designing rich Engage and Explore tasks that prioritize meaning and interaction, while using the Explain phase strategically to address linguistic needs.

Assessment practices should emphasize formative feedback and reflection, allowing students to monitor their progress and develop metacognitive awareness. In this way, evaluation becomes part of the learning process rather than a separate endpoint.

Conclusions. To sum up, this article argues that the 5E instructional model, when adapted thoughtfully, offers a powerful framework for English Language Teaching. By integrating inquiry, collaboration, and reflection, the model supports student engagement, critical thinking, and communicative competence. Its alignment with constructivist and communicative principles makes it particularly suitable for contemporary ELT contexts that aim to prepare learners for real-world communication and lifelong learning. Future research may further examine its effectiveness through longitudinal and comparative studies across diverse educational settings.

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ДОСЛІДНИЦЬКО-ОРІЄНТОВАНЕ НАВЧАННЯ У ВИКЛАДАННІ АНГЛІЙСЬКОЇ МОВИ: НАВЧАЛЬНА МОДЕЛЬ 5Е ЯК ПЕДАГОГІЧНА РАМКА

Анотація

Сучасне викладання англійської мови (*English Language Teaching, ELT*) дедалі більше зосереджується на студентоцентрованому навчанні, розвитку комунікативної компетентності та формуванні навичок мислення вищого порядку. У відповідь на ці пріоритети дослідницько-орієнтовані навчальні підходи пропонують ефективну педагогічну альтернативу традиційним учитель-центрованим моделям. У статті розглядається адаптація навчальної моделі 5Е, спочатку розробленої для STEM-світу, до контексту викладання англійської мови як іноземної (EFL). Спираючись на конструктивістську теорію навчання, модель 5Е структурує освітній процес через п'ять взаємопов'язаних етапів: залучення (*Engage*), дослідження (*Explore*), пояснення (*Explain*), поглиблення (*Elaborate*) та оцінювання (*Evaluate*). У дослідженні аналізується потенціал цієї моделі щодо підтримки залученості учнів та розвитку критичного мислення в умовах ELT-аудиторії.

Навчальна модель 5E пропонує теоретично обґрунтовану та емпірично підтверджену рамку для формування змістовного навчання, критичного мислення та стійкої навчальної залученості. Структуруючи навчання навколо дослідження, співпраці та рефлексії, модель сприяє глибокому концептуальному розумінню та розвитку когнітивних, соціальних і емоційних компетентностей, необхідних для навчання впродовж життя. За умови цілеспрямованого педагогічного впровадження та опори на доказові освітні практики модель 5E постає як потужний інструмент сучасної іншомовної освіти. Її структура є особливо ефективною для формування високих рівнів залученості, оскільки поєднує дослідницьку діяльність, співпрацю та рефлексію протягом усього навчального циклу. Залучені учні не лише демонструють кращі академічні результати, а й розвивають перенесені навички, зокрема комунікацію, командну взаємодію та саморегуляцію, що сприяє їхньому довготривалому освітньому та професійному успіху. У статті обґрунтовується, що модель 5E тісно узгоджується з принципами комунікативного підходу у викладанні мов і забезпечує цілісну педагогічну рамку для розвитку змістовної взаємодії, автономії здобувачів освіти та глибокої мовної обробки.

Ключові слова: навчальна модель 5E, викладання англійської мови, залученість учнів, критичне мислення, дослідницько-орієнтоване навчання, англійська мова як іноземна (EFL).

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Дата першого надходження статті до видання: 13.01.2026
Дата прийняття статті до друку після рецензування: 10.02.2026
Дата публікації (оприлюднення) статті: 17.04.2026