
| RESEARCH ARTICLE

From KWLH to AI-Assisted Language Learning: Balancing Learner Engagement and Deep Learning

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| ABSTRACT

Active learning has become an important approach in English language education because it encourages learners to participate actively in the learning process and take greater responsibility for their learning. In recent years, developments in digital technology and contemporary learner-centred pedagogies, including flipped learning, gamification, and artificial intelligence (AI), have expanded the ways in which learners interact with educational content. At the same time, an important question remains: does greater learner engagement lead to deeper learning? This qualitative narrative literature review examines approximately 25 peer-reviewed journal articles published during the last decade to explore how active learning approaches in higher education English language classrooms have evolved from reflective frameworks such as KWL and KWLH to contemporary inquiry-based and technology-enhanced learning environments. The findings show that active learning has developed through the gradual expansion of learner-centred approaches rather than through the replacement of earlier methods. While contemporary active learning approaches increase participation, flexibility, and learner autonomy, the review suggests that meaningful learning depends on more than active engagement. Across the studies reviewed, deeper learning was consistently associated with reflection, inquiry, critical thinking, and knowledge construction. The review also highlights the continuing relevance of KWLH, particularly its emphasis on helping learners consider how knowledge is explored and applied, making it highly relevant in contemporary AI-supported learning environments. The findings suggest that technology is most effective when it supports rather than replaces the cognitive processes that underpin meaningful learning. The review concludes that the future of English language education lies in balancing learner engagement with deeper understanding through learner-centred pedagogies that combine reflection, inquiry, and the purposeful use of technology.

| KEYWORDS

Active Learning; AI-Assisted Learning; Deep Learning; English Language Education; Higher Education; KWLH.

| ARTICLE INFORMATION

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1. Introduction

Active learning has become a central principle of contemporary education as institutions increasingly recognise that meaningful learning requires students to do more than passively receive information. Rather than relying on teacher-centred instruction, active learning encourages learners to participate in discussions, solve problems, ask questions, collaborate with others, and reflect on their learning. These learner-centred experiences help students develop not only subject knowledge but also critical thinking, communication, and independent learning skills that are essential in higher education and beyond (Burkšaitienė & Šliogerienė, 2021; Long et al., 2025). In English language education, where learners are expected to use language actively in authentic contexts, active learning provides opportunities to connect classroom learning with meaningful communication and real-world application (Alharbi, 2025; Shi et al., 2023).

The growing emphasis on learner-centred education has also been influenced by rapid advances in educational technology. Digital learning platforms, online collaboration tools, and AI-supported technologies have transformed the ways in which

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students access information, communicate, and engage with learning materials. These developments have created new opportunities for personalised learning, immediate feedback, flexible study, and increased learner autonomy (Javari, 2026; Rashid et al., 2026). As a result, active learning is no longer confined to face-to-face classroom activities but increasingly extends across technology-enhanced learning environments that encourage continuous interaction with knowledge, teachers, peers, and digital resources (Bhuiyan et al., 2026; Fisher et al., 2024).

Although technology has expanded the possibilities for active learning, its underlying educational principles are not new. Long before digital learning environments became common, educators developed instructional approaches that encouraged learners to take responsibility for their own learning. Among the best-known examples are the KWL (Know–Want to Know–Learned) and KWLH (Know–Want to Know–Learned–How) frameworks. These strategies encourage learners to activate prior knowledge, establish learning goals, reflect on what they have learned, and consider how further knowledge can be acquired. Rather than viewing learning as the simple acquisition of information, KWL and KWLH promote reflection, purposeful questioning, and metacognitive awareness, enabling learners to monitor and direct their own learning processes. Recent research continues to demonstrate the value of these approaches in improving learner engagement, comprehension, reflective thinking, and metacognitive development while supporting meaningful language learning (Alsalhi, 2020; Bogdanović et al., 2022; Karagöl, 2025). Their continued relevance suggests that the core principles of active learning remain applicable even as educational technologies continue to evolve.

Building on these early learner-centred frameworks, active learning has expanded to encompass inquiry-based learning, flipped learning, gamification, and AI-assisted learning (Katan & Baarts, 2020; De Waal & Weder, 2022; Fisher et al., 2024; Kontrimienė et al., 2024; Aguilar et al., 2018; Hong et al., 2025; Javari, 2026; Rashid et al., 2026). Although these approaches differ in their instructional design and use of technology, they share a common goal of increasing learner participation, promoting collaboration and learner autonomy, and encouraging students to become active contributors to their own learning. Together, they demonstrate how active learning has evolved while continuing to build on the reflective and metacognitive principles established by earlier learner-centred frameworks.

Despite the widespread adoption of these approaches, an important educational question remains. Increased learner participation does not necessarily result in deeper understanding. Students may actively engage in classroom discussions, complete online activities, participate in gamified tasks, or interact with AI-powered learning tools without fully developing conceptual understanding or the ability to apply knowledge in unfamiliar situations (Long et al., 2025; Shi et al., 2023). Consequently, engagement should not be viewed as an end in itself. Instead, meaningful learning depends on the quality of learners' cognitive engagement, including reflection, analysis, critical thinking, and knowledge construction (Alharbi, 2025; Marandi et al., 2026). As access to information becomes easier through digital technologies and AI, the educational challenge shifts from helping learners find information to helping them interpret, evaluate, and apply it effectively (Javari, 2026; Rashid et al., 2026).

This distinction has become increasingly important in English language education. Language learning involves more than memorising vocabulary or grammatical rules; it requires learners to communicate meaningfully, solve problems, reflect on language use, and transfer knowledge across different contexts (Burkšaitienė & Šliogerienė, 2021; Alharbi, 2025). Active learning approaches therefore have the potential to support both learner engagement and deeper learning when they encourage meaningful interaction with language rather than simple task completion. While AI and other digital technologies can enhance learning experiences through personalised support and immediate feedback, they cannot replace the cognitive processes that enable learners to analyse information, make informed judgements, and construct lasting understanding (Bhuiyan et al., 2026; Rashid et al., 2026; Javari, 2026).

Although numerous studies have investigated individual active learning strategies, much of the existing literature examines these approaches separately. Research has explored the effectiveness of KWL and KWLH (Alsalhi, 2020; Karagöl, 2025), inquiry-based learning (De Waal & Weder, 2022; Sripradith & Phoocharoensil, 2025), flipped learning (Fisher et al., 2024; Dorgham & Obiad, 2025), gamification (Aguilar et al., 2018; Hong et al., 2025), and AI-assisted learning (Javari, 2026; Rashid et al., 2026) as independent instructional approaches. Comparatively fewer studies have synthesised these approaches within a single conceptual perspective to explain how active learning has evolved over time and how this evolution contributes not only to learner engagement but also to the development of deep learning. As a result, there remains a need for a broader synthesis that connects traditional learner-centred frameworks with contemporary technology-supported approaches while examining the shared educational principles that underpin them.

This narrative literature review addresses that gap by examining approximately 25 peer-reviewed studies published during the past decade on active learning in higher education English language classrooms. Rather than evaluating individual instructional

approaches in isolation, the review synthesises the literature to examine the evolution of active learning from early reflective frameworks, including KWL and KWLH, to contemporary technology-enhanced pedagogies. It further explores how these pedagogical developments collectively support learner engagement and contribute to deeper learning through reflection, inquiry, critical thinking, and knowledge construction.

The review is guided by the following research questions:

1. How have active learning approaches evolved from KWL and KWLH to contemporary AI-assisted learning in English language education?
2. How do these active learning approaches influence learner engagement and participation?
3. How does active learner engagement contribute to the development of deep learning?
4. What implications do these findings have for AI-assisted English language education in higher education?

The remainder of this paper is organised as follows. The next section reviews the literature on the evolution of active learning, learner engagement, deep learning, and AI-assisted English language education. This is followed by the methodology describing the narrative literature review process. The findings are then presented through a thematic synthesis that examines the evolution of active learning, the relationship between engagement and deep learning, and the implications of these developments for English language education. Finally, the paper concludes by summarising the principal findings and highlighting the importance of balancing learner engagement with meaningful knowledge construction in technology-supported learning environments.

2. Literature Review

2.1 Evolution of Active Learning

Active learning has evolved through a gradual shift from teacher-centred instruction to learner-centred approaches that encourage students to participate actively in constructing knowledge. Rather than viewing learners as passive recipients of information, active learning emphasises questioning, discussion, reflection, collaboration, and the application of knowledge in meaningful contexts. These principles have become increasingly important in higher education because they promote learner autonomy, critical thinking, and long-term understanding (Burkšaitienė & Šliogerienė, 2021; Long et al., 2025). Although digital technologies have expanded opportunities for active participation, the fundamental principles of learner-centred education were established well before the emergence of technology-enhanced learning environments.

One of the earliest and most influential learner-centred strategies is the KWL (Know–Want to Know–Learned) framework developed by Ogle. The strategy encourages learners to activate prior knowledge, identify learning goals, and reflect on new knowledge after instruction. These stages promote learner participation while fostering metacognitive awareness and self-regulated learning. Research has consistently demonstrated that KWL improves reading comprehension, learner engagement, and knowledge organisation by encouraging students to think actively before, during, and after learning (Alsalhi, 2020). The subsequent development of KWLH (Know–Want to Know–Learned–How) extended this framework by adding a fourth stage that encourages learners to consider how additional knowledge can be acquired beyond the classroom. Rather than viewing learning as a completed classroom activity, KWLH promotes inquiry, independent learning, and continued exploration beyond formal instruction. Recent studies suggest that KWLH supports reflective thinking, learner autonomy, note-taking, listening comprehension, critical thinking, and metacognitive development, making it a valuable approach for promoting independent learning in higher education while encouraging learners to become more aware of their own learning processes (Bogdanović et al., 2022; Karagöl, 2025).

As learner-centred education continued to develop, greater emphasis was placed on inquiry, exploration, and knowledge construction. Building on the reflective foundation established by KWLH, inquiry-based learning encourages learners not only to identify what they need to learn but also to investigate authentic questions, evaluate evidence, and construct understanding through discussion, collaboration, and problem-solving rather than memorisation (Katan & Baarts, 2020; De Waal & Weder, 2022). Recent research in English language education further shows that inquiry-based approaches, particularly when combined with collaborative discussion and reflective activities, strengthen learner engagement, critical reading, and higher-order thinking skills (Sripradith & Phoocharoensil, 2025). These developments demonstrate that active learning has evolved through the gradual expansion of learner-centred principles rather than through the replacement of earlier approaches. Reflection, questioning, and learner responsibility continue to provide the foundation upon which contemporary active learning strategies have been developed.

2.2 Active Learning, Learner Engagement and Deep Learning

Learner engagement has become one of the defining characteristics of active learning across different educational contexts. Rather than viewing students as passive recipients of knowledge, active learning encourages them to participate actively through

discussion, collaboration, problem-solving, and reflective activities. In English language education, these learner-centred approaches have been associated with increased motivation, confidence, classroom participation, and willingness to communicate (Burkšaitienė & Šliogerienė, 2021; Akib et al., 2025). Studies on flipped learning, gamification, and technology-supported instruction further suggest that active participation creates more opportunities for meaningful interaction with language while promoting learner autonomy and sustained engagement (Fisher et al., 2024; Hong et al., 2025; Roibu, 2025).

Although learner engagement is widely recognised as an important outcome of active learning, the literature consistently suggests that participation alone does not guarantee meaningful learning. Students may actively contribute to classroom discussions, complete technology-supported activities, or participate in gamified tasks without developing a deep conceptual understanding of the subject matter. Deep learning requires learners to analyse information, reflect on their experiences, connect new knowledge with prior understanding, and apply learning in unfamiliar contexts (Shi et al., 2023; Long et al., 2025). Across the studies reviewed, higher-order cognitive processes—including critical thinking, evaluation, reflection, and knowledge construction—emerge as the key factors that transform active participation into meaningful learning outcomes (Alharbi, 2025; Marandi et al., 2026). This distinction suggests that learner engagement should be viewed as the foundation for learning, whereas deep learning represents its broader educational goal.

The growing integration of educational technology has created new opportunities to enhance learner engagement and support deeper learning. Flipped learning provides greater opportunities for collaborative classroom activities, while gamification encourages motivation and sustained participation through interactive learning experiences (Fisher et al., 2024; Oliver, 2017; Hong et al., 2025). Recent studies also indicate that game-based learning and other creative instructional approaches can improve communication skills, learner confidence, and classroom interaction when they are designed to encourage reflection rather than simple competition (Chen, 2025; Rizakhojayeva, 2026; Roibu, 2025). Collectively, the literature suggests that technology is most effective when it complements learner-centred pedagogy by promoting inquiry, reflection, collaboration, and critical thinking rather than merely increasing classroom activity. This perspective provides an important foundation for examining how technology-enhanced active learning, particularly AI-assisted learning, continues to extend the principles of learner-centred education.

2.3 Technology-Enhanced Active Learning

Rapid developments in educational technology have significantly expanded the ways in which active learning is implemented in English language education. Flipped learning, gamification, and AI-assisted learning have created more flexible and interactive learning environments that encourage students to participate actively both inside and outside the classroom. Rather than replacing learner-centred teaching, these approaches extend its principles by providing greater opportunities for collaboration, independent learning, immediate feedback, and personalised instruction (Fisher et al., 2024; Dorgham & Obiad, 2025; Javari, 2026). Recent studies also indicate that technology-supported learning environments can increase learner motivation, confidence, and engagement when digital tools are integrated with clearly defined pedagogical objectives rather than being used solely for their technological features (Akib et al., 2025; Bhuiyan et al., 2026).

Flipped learning shifts direct instruction outside the classroom, allowing classroom time to be used for discussion, collaboration, and problem-solving (Fisher et al., 2024; Dorgham & Obiad, 2025). Gamification introduces game-based elements that encourage motivation, participation, and sustained learner engagement (Aguilar et al., 2018; John, 2024; Hong et al., 2025). More recently, AI-assisted learning has introduced intelligent tutoring systems, adaptive learning platforms, automated feedback, and conversational AI tools that provide immediate and personalised learning support (Javari, 2026; Rashid et al., 2026; Bhuiyan et al., 2026). Although these approaches differ in their implementation, they share a common objective of extending learner-centred pedagogy through greater interaction, collaboration, learner autonomy, and timely feedback.

AI-assisted learning represents the most recent stage in the evolution of technology-enhanced active learning. Intelligent tutoring systems, adaptive learning platforms, automated feedback, and generative AI tools provide learners with personalised support and flexible access to learning resources (Javari, 2026; Rashid et al., 2026). These technologies have considerable potential to enhance language learning by encouraging independent study, providing immediate feedback, and supporting learners with different needs and proficiency levels (Bhuiyan et al., 2026). However, the literature consistently emphasises that AI is most effective when it supports rather than replaces the cognitive processes involved in learning. Reflection, inquiry, critical thinking, and teacher guidance remain essential for helping learners evaluate information, construct knowledge, and apply learning meaningfully (Alharbi, 2025; Marandi et al., 2026). Rather than replacing earlier learner-centred approaches, AI-assisted learning extends the principles established by frameworks such as KWLH by providing new opportunities for reflection, inquiry, and independent learning within technology-enhanced environments.

Collectively, the literature indicates that technology enhances active learning most effectively when it supports sound learner-centred pedagogy rather than functioning as an end in itself. Although digital technologies create new opportunities for interaction, collaboration, personalised learning, and independent study, they do not replace the importance of reflection, inquiry, critical thinking, and knowledge construction (Javari, 2026; Rashid et al., 2026; Alharbi, 2025). Despite the growing body of research examining individual instructional approaches—including KWL/KWLH, flipped learning, gamification, and AI-assisted learning—comparatively little attention has been given to explaining how these approaches collectively illustrate the evolution of active learning and contribute to both learner engagement and deep learning in English language education. Addressing this gap provides the foundation for the present narrative literature review, which synthesises recent research to examine how active learning has evolved from reflective learner-centred frameworks to contemporary AI-assisted learning environments.

3. Methodology

3.1 Research Design

This study employed a qualitative narrative literature review to examine the evolution of active learning strategies in English language education, with particular attention to the progression from traditional KWLH strategies to contemporary AI-assisted learning. A narrative literature review was considered appropriate because the purpose of the study was to explore, compare, and synthesise existing research rather than statistically evaluate the effectiveness of individual teaching interventions. This approach enabled the identification of recurring patterns, relationships, and developments across the literature while providing a broad understanding of how learner-centred approaches have evolved and contributed to learner engagement and deep learning in higher education English language classrooms. The review was organised around themes reflecting this progression, including KWL/KWLH, inquiry-based learning, flipped learning, gamification, AI-assisted learning, and deep learning.

3.2 Literature Search Strategy

Relevant studies were identified through systematic searches of Scopus, Google Scholar, and other relevant education databases. The search focused on literature examining active learning in English language education, particularly within higher education contexts. Search terms included KWL, KWLH, inquiry-based learning, flipped learning, gamification, artificial intelligence, AI-assisted learning, deep learning, English language teaching, EFL, ESL, and higher education. Different combinations of these keywords were used to identify studies aligned with the review objectives. In addition, the reference lists of selected articles were examined to locate further relevant publications.

Only peer-reviewed journal articles published in English were included in the review. To ensure that the review reflected contemporary developments in active learning and AI-assisted language learning, priority was given to studies published during the past decade, although a small number of earlier seminal studies were retained where they provided important theoretical or historical foundations. Rather than attempting to include every publication on the topic, the review focused on studies that were most relevant to the research objectives and that represented significant developments in learner-centred approaches within higher education English language education.

3.3 Study Selection

Titles and abstracts of the identified studies were initially screened to determine their relevance to the review objectives. Articles addressing active learning strategies, learner engagement, deep learning, technology-enhanced learning, artificial intelligence, or English language education were selected for full-text review. Each article was subsequently evaluated for its relevance to the review objectives, the clarity and appropriateness of its research design, the credibility of its findings, and its overall contribution to understanding active learning in English language education before being included in the final synthesis.

The final review included approximately 25 peer-reviewed journal articles that were considered most relevant to the research questions. Selection was guided by each study's contribution to understanding the evolution of active learning and its implications for learner engagement and deep learning in higher education English language classrooms. A small number of widely cited studies from related educational fields were included solely to provide theoretical background and contextual support and were not central to the thematic synthesis.

Table 1. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Peer-reviewed journal articles	Conference papers, dissertations and book chapters
Published in English	Non-English publications
Studies related to English language teaching (EFL/ESL)	Studies unrelated to English language education
Studies examining active learning approaches	Opinion articles with limited relevance
Relevant to one or more review themes	Duplicate publications

3.4 Data Analysis

The selected studies were analysed using a thematic synthesis approach to identify recurring patterns and relationships across the literature. Each article was read carefully, and information relating to the research purpose, educational context, research design, participants, key findings, and contribution to active learning was systematically recorded. As the analysis progressed, similarities and differences across the studies were identified, compared, and organised into broader thematic categories.

Rather than comparing studies statistically, the analysis focused on synthesising evidence, identifying common trends, highlighting differences, and explaining how active learning approaches have evolved within English language education. The thematic synthesis also examined how learner-centred strategies contribute to learner engagement and deep learning across both traditional and technology-enhanced learning environments. The resulting themes formed the analytical framework for the literature review and guided the interpretation of relationships among the different learner-centred approaches.

3.5 Review Rigour

To enhance the credibility and transparency of the review, studies were selected using predefined inclusion and exclusion criteria and analysed systematically through thematic synthesis. Particular attention was given to the relevance of each study to the review objectives, the clarity of its research design, and the credibility of its findings. Rather than evaluating the effectiveness of individual instructional approaches, the review sought to identify recurring patterns and develop an integrated understanding of the evolution of active learning in English language education.

Table 2. Information Extracted from Each Study

Information Recorded	Purpose in the Review
Author(s) and year	Identify the study
Educational context	Describe the learning environment
Active learning approach	Classify the study within the thematic synthesis
Research design	Assess methodological characteristics
Participants	Identify the learner population
Key findings	Compare reported outcomes across studies
Contribution to the review	Support thematic interpretation and synthesis

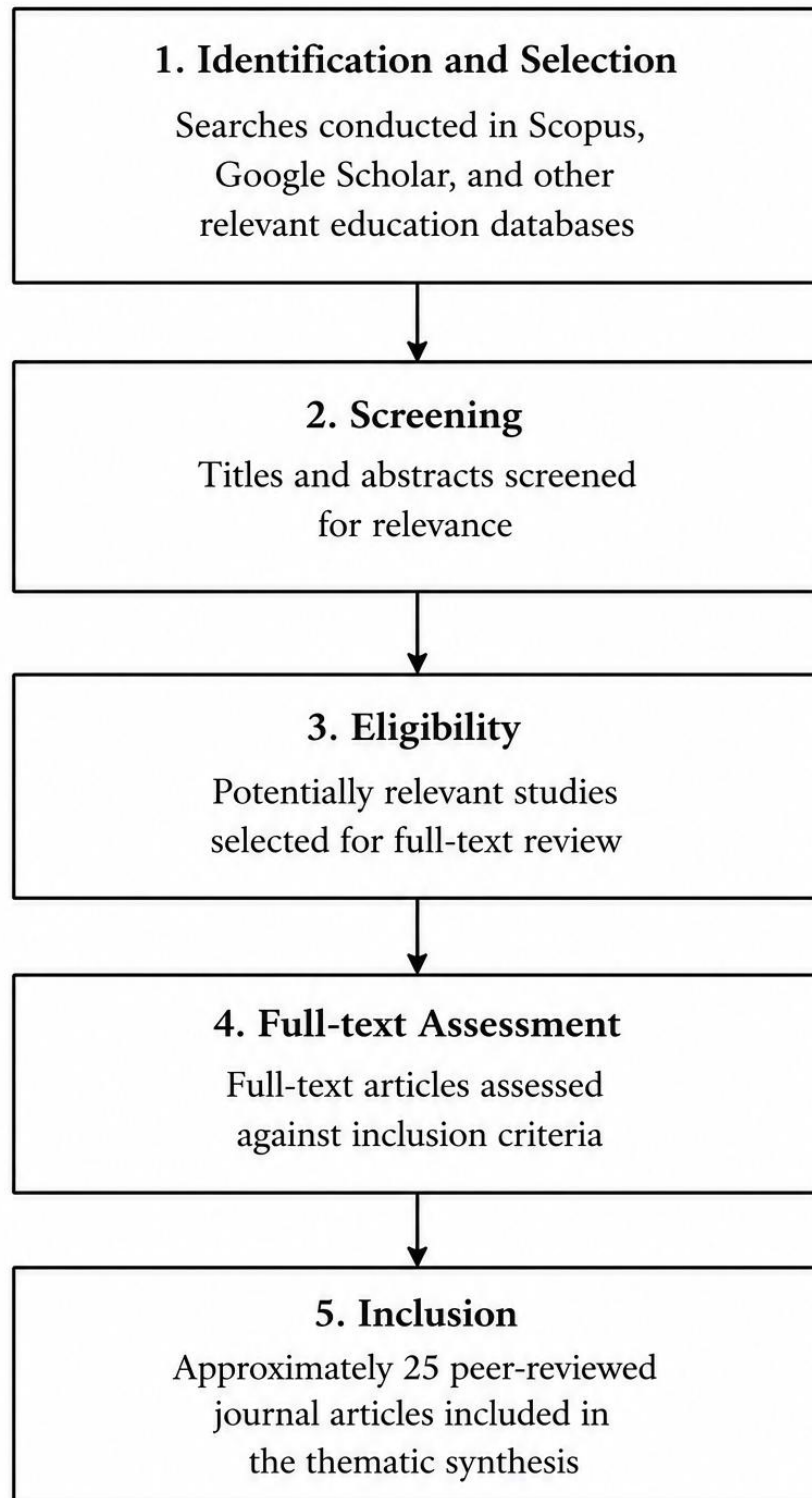


Figure 1. Literature selection process adopted for the narrative review.

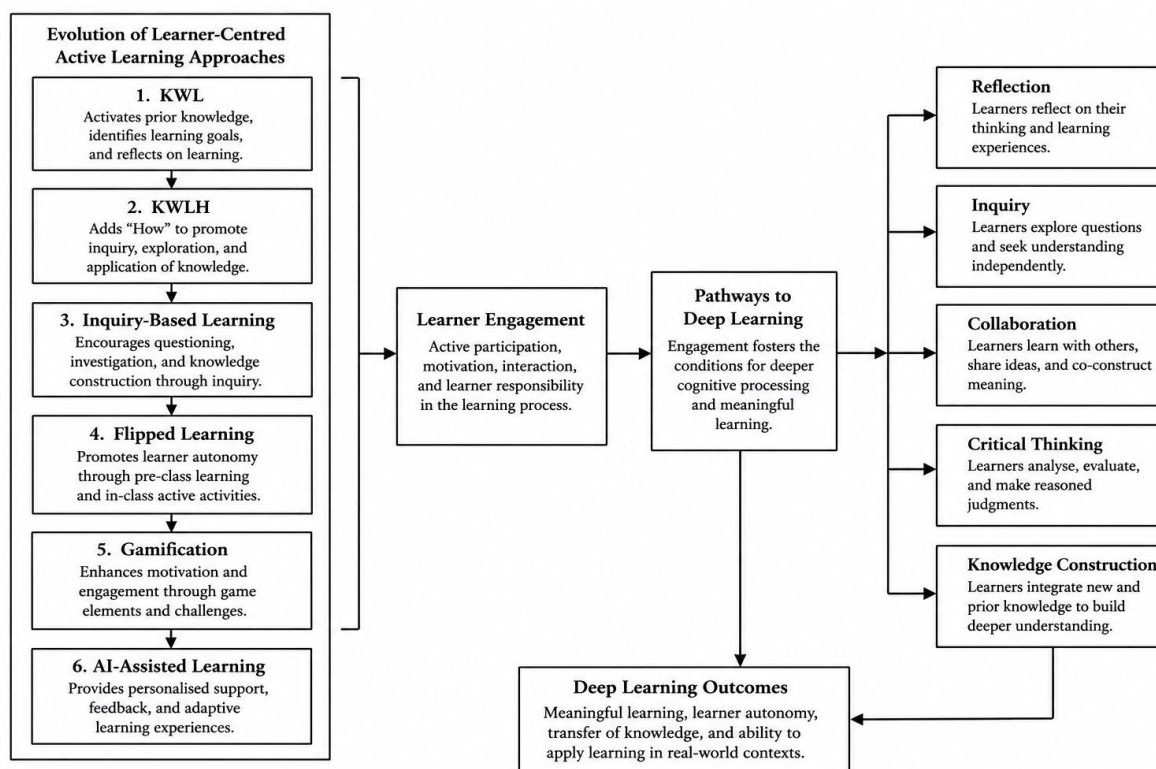


Figure 2. Conceptual framework illustrating the evolution of learner-centred active learning approaches and their pathways to deep learning outcomes.

Table 3. Comparative Synthesis of Active Learning Approaches

Approach	Contribution Reported in the Literature	Common Challenges Reported	Role in the Evolution of Active Learning
KWL/KWLH	Activates prior knowledge, promotes reflection, and supports metacognitive learning	Limited when used independently for complex learning tasks	Establishes the learner-centred foundation of active learning
Inquiry-Based Learning	Encourages questioning, investigation, and critical thinking	Requires effective teacher guidance and well-designed learning tasks	Extends reflective learning through inquiry and knowledge construction
Flipped Learning	Increases opportunities for classroom interaction, collaboration, and problem-solving	Effectiveness depends on learners completing pre-class preparation	Integrates technology to support active, collaborative learning
Gamification	Enhances motivation, participation, and learner engagement	Motivational effects may decline if game elements become repetitive or superficial	Uses interactive learning experiences to strengthen engagement
AI-Assisted Learning	Provides personalised feedback, adaptive learning support, and immediate responses	Ethical considerations, overreliance on AI, and the need for teacher guidance	Extends learner-centred pedagogy through intelligent technologies
Deep Learning	Promotes critical thinking, knowledge integration, reflection, and long-term understanding	Requires sustained learner engagement and meaningful instructional design	Represents the overarching educational outcome of learner-centred active learning

4. Results/Findings

4.1 The Evolution of Active Learning: From KWLH to AI-Assisted Learning

The reviewed literature demonstrates that active learning has evolved progressively from traditional learner-centred strategies toward increasingly technology-enhanced learning environments. Rather than replacing earlier approaches, newer pedagogical

models have built upon the same educational principles of learner participation, reflection, inquiry, collaboration, and knowledge construction. This progression illustrates a continuous process of pedagogical development in which technological innovations extend, rather than fundamentally alter, the core objectives of active learning.

A key finding emerging from the review is that the evolution of active learning is characterised by pedagogical continuity rather than pedagogical replacement. Early learner-centred frameworks such as KWL and KWLH established the foundations of reflective learning by encouraging learners to activate prior knowledge, identify learning goals, monitor understanding, and consider how learning can be extended beyond the classroom (Alsalihi, 2020; Bogdanović et al., 2022; Karagöl, 2025). The reviewed studies indicate that subsequent approaches—including inquiry-based learning, flipped learning, gamification, and AI-assisted learning—have progressively expanded these principles by creating richer opportunities for interaction, collaboration, personalised feedback, and learner autonomy (Fisher et al., 2024; Hong et al., 2025; Javari, 2026; Rashid et al., 2026; Bhuiyan et al., 2026).

As active learning developed, greater emphasis was placed on learners' critical thinking, problem-solving, and independence. Inquiry-based learning strengthened reflective learning by encouraging learners to formulate questions, investigate authentic problems, evaluate evidence, and construct understanding through discussion and collaboration. Flipped learning further extended learner-centred practice by shifting direct instruction outside the classroom and using classroom time for collaborative learning, problem-solving, and the practical application of knowledge (Fisher et al., 2024; Dorgham & Obiad, 2025). Similarly, gamification enhanced learner motivation and participation through interactive learning experiences, while AI-assisted learning introduced adaptive learning systems, intelligent tutoring, automated feedback, and personalised learning pathways that respond to learners' individual needs (Aguilar et al., 2018; John, 2024; Javari, 2026; Rashid et al., 2026; Bhuiyan et al., 2026).

Across the reviewed studies, technology consistently emerged as a means of strengthening learner-centred pedagogy rather than replacing it. Although digital technologies have transformed how learners access information, communicate, and receive feedback, the underlying educational purpose remains unchanged: to encourage learners to engage actively in constructing meaningful knowledge through reflection, inquiry, collaboration, and critical thinking. The educational value of AI therefore lies not in the technology itself but in its ability to support personalised learning, strengthen learner engagement, and facilitate deeper learning when integrated with sound pedagogical practice.

Table 4. Contribution to the Evolution of Active Learning

Approach	Primary Focus	Contribution to the Evolution of Active Learning
KWL	Reflection and prior knowledge	Helps learners connect existing knowledge with new learning and reflect on what they have learned.
KWLH	Reflection and inquiry	Encourages learners to consider how knowledge can be explored and developed further.
Inquiry-Based Learning	Investigation and questioning	Develops critical thinking and knowledge construction through inquiry.
Flipped Learning	Learner autonomy and participation	Creates more opportunities for discussion, collaboration, and classroom application.
Gamification	Motivation and engagement	Encourages participation, confidence, and active involvement in learning.
AI-Assisted Learning	Personalised and self-directed learning	Provides flexible learning opportunities, immediate feedback, and learner support.

Overall, the reviewed literature indicates that active learning has evolved through a gradual process of pedagogical development rather than through fundamental changes in educational philosophy. Successive approaches have introduced new technologies, greater flexibility, and innovative learning environments while continuing to build upon the learner-centred principles established by earlier models. Reflection, inquiry, active participation, collaboration, and learner responsibility therefore remain the foundation of effective English language learning across both traditional and technology-enhanced contexts.

A second key finding is that technology has strengthened active learning rather than changed its fundamental purpose. Whether learners engage through KWLH charts, inquiry-based activities, flipped classrooms, gamified tasks, or AI-assisted learning tools, the underlying objective remains the same: to promote meaningful engagement with knowledge, critical thinking, and deep learning. The evidence therefore suggests that technological innovation is most effective when it complements sound pedagogical practice rather than replacing the learner-centred principles that underpin active learning.

4.2 Active Engagement and Learner Participation

Another important finding emerging from this review is the consistent emphasis on learner engagement across different active learning approaches. Although the strategies examined differ in their instructional design and use of technology, they share a common objective of encouraging learners to take an active role in the learning process. Rather than acting as passive recipients of information, learners are expected to ask questions, engage in discussion, solve problems, collaborate with others, reflect on their learning, and apply knowledge in meaningful contexts. Across the reviewed studies, learner engagement therefore emerges as a defining characteristic of active learning, regardless of whether instruction is based on traditional learner-centred approaches or technology-enhanced learning environments.

The reviewed studies further indicate that learner engagement extends beyond visible participation in classroom activities. Meaningful engagement involves learners thinking critically, reflecting on their understanding, connecting new knowledge with prior experiences, and applying what they have learned to authentic tasks and problems. Across the different active learning approaches, engagement is therefore viewed as both a behavioural and cognitive process that encourages learners to become active participants in constructing knowledge rather than passive recipients of information (Long et al., 2025; Shi et al., 2023; Alharbi, 2025). These findings suggest that active participation is most effective when it promotes deeper thinking and meaningful learning rather than simply increasing classroom activity.

While the reviewed studies consistently highlight the importance of learner engagement, they also indicate that engagement alone does not necessarily result in deep learning. Students may participate actively in discussions, collaborative tasks, or technology-enhanced activities without achieving a meaningful understanding of the concepts being taught. Deep learning occurs when learners critically analyse information, integrate new knowledge with prior understanding, reflect on their learning, and apply their knowledge to new situations (Shi et al., 2023; Long et al., 2025; Alharbi, 2025; Marandi et al., 2026). The findings therefore suggest that learner engagement should be viewed as a foundation for deep learning rather than an educational outcome in itself.

The reviewed literature further indicates that active learning approaches are most effective when they combine meaningful participation with opportunities for reflection, collaboration, inquiry, and timely feedback. Although these elements are implemented differently across KWLH, inquiry-based learning, flipped learning, gamification, and AI-assisted learning, they share the common purpose of encouraging learners to think actively about what they are learning and how they can apply their knowledge. Across the reviewed studies, it is this combination of active participation and cognitive engagement, rather than the instructional approach or technology itself, that most strongly supports deep learning (Burkšaitienė & Šliogerienė, 2021; Fisher et al., 2024; Javari, 2026; Rashid et al., 2026). These findings reinforce the view that effective active learning depends on sound pedagogical design that promotes meaningful learning rather than simply increasing student activity.

The reviewed studies also indicate that learner engagement becomes more meaningful when students are encouraged to reflect on their learning, explain their thinking, and apply their knowledge in different contexts. Activities involving discussion, inquiry, problem-solving, and collaboration appear to promote deeper learning because they require learners to analyse, evaluate, and construct understanding rather than simply complete learning tasks. Meaningful engagement is therefore characterised not merely by active participation but by the quality of learners' cognitive involvement in the learning process.

Taken together, the findings suggest that learner engagement is one of the greatest strengths of active learning. However, the literature also indicates that the quality of engagement is more important than the amount of classroom activity. Active learning is most effective when participation encourages learners to question ideas, make connections, reflect on their understanding, and apply knowledge in meaningful ways. These findings reinforce the distinction between active participation and deep learning and provide the foundation for the next section, which examines how active learning contributes to deeper learning outcomes.

4.3 From Engagement to Deep Learning

A third major finding of this review is that active learning contributes to deep learning when instructional activities encourage learners to move beyond participation and engage in meaningful cognitive processes. Across the reviewed studies, deep learning is associated with analysing ideas, making connections between prior and new knowledge, reflecting on understanding, solving authentic problems, and applying knowledge in unfamiliar contexts. Rather than focusing on memorisation or the completion of classroom tasks, deep learning emphasises conceptual understanding and the ability to transfer learning to new situations (Shi et al., 2023; Long et al., 2025; Alharbi, 2025). These findings suggest that active learning is most effective when it creates opportunities for learners to think critically, construct knowledge, and engage in sustained intellectual inquiry.

The reviewed studies further indicate that deep learning is fostered through active learning when learners are encouraged to engage in reflection, inquiry, collaboration, and the application of knowledge rather than simply acquiring information. Although KWLH, inquiry-based learning, flipped learning, gamification, and AI-assisted learning differ in their instructional design, they all create opportunities for learners to construct understanding through active involvement in the learning process. Across these approaches, deep learning emerges from activities that require learners to question assumptions, evaluate evidence, integrate new ideas with prior knowledge, and apply their understanding to authentic learning situations. These findings suggest that meaningful learning depends not on the specific instructional approach employed but on the extent to which learners are cognitively engaged in constructing knowledge.

The reviewed studies also demonstrate how different active learning approaches support deep learning through complementary learning processes. KWL and KWLH provide an early example by encouraging learners to activate prior knowledge, identify learning goals, reflect on new understanding, and consider how additional knowledge can be acquired. The inclusion of the How stage in KWLH further promotes learner autonomy by encouraging students to think about strategies for extending their learning beyond the classroom (Alsalihi, 2020; Karagöl, 2025).

Inquiry-based learning builds on these learner-centred principles by placing students in situations where they investigate questions, evaluate evidence, and justify their conclusions. Rather than accepting information uncritically, learners construct understanding through investigation, discussion, and reflection (De Waal & Weder, 2022; Sripradith & Phoocharoensil, 2025). Similarly, flipped learning creates greater opportunities for applying knowledge, solving authentic problems, and collaborating with peers during classroom activities (Fisher et al., 2024; Dorgham & Obiad, 2025). Although gamification is frequently associated with increased motivation and participation, the reviewed studies suggest that its contribution to deep learning is greatest when game-based activities encourage learners to think critically, communicate effectively, and reflect on their learning rather than simply accumulate points or rewards (Hong et al., 2025; John, 2024).

A similar pattern is evident in AI-assisted learning. Artificial intelligence provides learners with rapid access to information, personalised learning experiences, and immediate feedback, making learning more flexible and responsive to individual needs (Javari, 2026; Rashid et al., 2026; Bhuiyan et al., 2026). However, the reviewed studies consistently indicate that these advantages support deep learning only when learners actively engage with the feedback they receive. Simply accepting AI-generated responses without questioning, evaluating, or applying them is unlikely to foster critical thinking or lasting understanding. Instead, AI is most effective when it encourages learners to revise their ideas, reflect on their progress, and make informed decisions about their learning.

Table 5. Characteristics of Active Engagement and Deep Learning

Active Engagement	Deep Learning
Participation in learning activities	Meaningful understanding
Motivation and interest	Critical thinking
Interaction and collaboration	Knowledge construction
Completing learning tasks	Application and transfer of knowledge
Immediate involvement	Long-term understanding and retention
Access to information	Evaluation and interpretation of information
Receiving feedback	Reflection and metacognitive awareness

Overall, the findings of this review suggest that active engagement should be viewed as the starting point rather than the ultimate goal of learning. While participation creates opportunities for learning, deep learning develops when learners reflect on their experiences, critically evaluate information, connect new ideas with prior knowledge, and apply their understanding in meaningful contexts. This distinction is particularly important in technology-rich learning environments, where access to information is no longer the primary challenge. Instead, the role of educators is to design learning experiences that help students interpret, question, evaluate, and use information effectively. From this perspective, the success of active learning depends not simply on keeping learners actively engaged but on fostering thoughtful, independent, and lasting understanding through sound learner-centred pedagogy.

4.4 Implications for AI-Assisted English Language Education

This narrative literature review examined the evolution of active learning in English language education, tracing its development from traditional KWLH strategies to contemporary AI-assisted learning environments. The evidence presented throughout the

review indicates that active learning has evolved through pedagogical continuity rather than fundamental change. Although instructional approaches have become increasingly technology-enhanced, they continue to be grounded in the learner-centred principles of reflection, inquiry, collaboration, active participation, and learner responsibility.

Learner engagement emerged as a defining characteristic across all active learning approaches, yet engagement alone was not sufficient to promote meaningful learning. Deep learning was most evident when learners critically evaluated information, connected new knowledge with prior understanding, reflected on their learning, and applied their knowledge in authentic contexts. Across the reviewed studies, the most effective approaches combined active participation with opportunities for reflection, inquiry, constructive feedback, and knowledge construction.

These findings have important implications for English language education as digital technologies and artificial intelligence become increasingly integrated into teaching and learning. AI-assisted learning offers considerable opportunities for personalised learning, immediate feedback, flexible access to learning resources, and greater support for independent study, particularly in higher education where learner autonomy is increasingly important.

However, the reviewed evidence also indicates that technology alone cannot guarantee meaningful learning. While AI can provide rapid access to information and personalised support, it cannot replace the cognitive processes that underpin deep learning. Reflection, inquiry, critical thinking, and the ability to evaluate information remain essential regardless of the technologies being used. The educational value of AI therefore lies in its ability to support learner-centred pedagogy by creating learning experiences that foster thoughtful, independent, and lasting understanding.

This review also highlights the changing role of the teacher in technology-enhanced learning environments. As AI tools become more widely integrated into education, teachers are likely to spend less time transmitting information and more time facilitating discussion, encouraging inquiry, and supporting reflective learning. Their role increasingly involves helping learners evaluate information critically, solve problems, and make informed decisions about their learning. Technology can therefore enhance teaching, but it cannot replace effective pedagogy or the meaningful interaction between teachers and learners.

An equally important implication is that active learning should not be evaluated solely by the amount of classroom activity or the use of digital technologies. The reviewed literature suggests that effective learning environments are those in which technology is integrated with opportunities for reflection, collaboration, inquiry, and critical thinking. AI-assisted learning, flipped learning, and gamification are most successful when they encourage learners to develop deeper understanding rather than simply complete learning tasks more efficiently.

Taken together, these findings suggest that the future of English language education lies not in choosing between traditional teaching and emerging technologies but in integrating technology in ways that strengthen learner-centred pedagogy. As active learning continues to evolve, approaches that combine active participation with reflection, inquiry, collaboration, and meaningful knowledge construction are likely to remain the most effective. From this perspective, AI should be viewed as a valuable educational tool that enhances learning, while teachers continue to play a central role in fostering the understanding, judgement, and critical thinking needed for lifelong learning.

5. Conclusion

This narrative literature review examined the evolution of active learning in English language education, tracing its development from traditional KWL and KWLH strategies to contemporary AI-assisted learning environments. The review identified a clear progression from early learner-centred approaches to increasingly technology-enhanced learning practices. Although these approaches differ in their instructional methods and use of technology, they share a common purpose of encouraging learners to participate actively in constructing knowledge rather than simply receiving information.

The review also demonstrates that learner engagement and deep learning are closely related but distinct educational outcomes. While active learning strategies consistently promote participation, motivation, and learner confidence, these outcomes alone do not guarantee meaningful learning. Deep learning develops when learners critically evaluate information, reflect on their understanding, connect new knowledge with prior experiences, and apply what they have learned in authentic contexts. The most effective active learning approaches are those that combine active participation with reflection, inquiry, collaboration, constructive feedback, and knowledge construction.

Another important conclusion of this review is the continuing relevance of early learner-centred approaches such as KWL and KWLH. Although these frameworks were developed before the widespread use of digital technologies, the principles they promote—reflection, learner awareness, purposeful questioning, and self-directed learning—remain fundamental to effective

language learning. More recent approaches, including inquiry-based learning, flipped learning, gamification, and AI-assisted learning, extend these principles rather than replace them, demonstrating that active learning has evolved through pedagogical continuity.

The increasing integration of artificial intelligence presents both opportunities and challenges for English language education. AI-assisted learning provides personalised learning experiences, immediate feedback, adaptive support, and greater flexibility, creating valuable opportunities for learner autonomy and engagement. However, technology alone cannot ensure meaningful learning. Learners must continue to interpret feedback, evaluate information critically, solve problems, and apply knowledge thoughtfully if deeper learning is to occur.

These findings have important implications for educational practice. As AI becomes more widely integrated into language education, teachers are likely to spend less time transmitting information and more time facilitating inquiry, guiding reflection, encouraging critical thinking, and supporting learners in making informed decisions about their learning. Similarly, the effectiveness of active learning should not be judged solely by the amount of classroom activity or the use of digital technologies but by the extent to which learning experiences promote meaningful cognitive engagement and lasting understanding.

Overall, the future of English language education lies not in choosing between traditional learner-centred approaches and emerging technologies but in integrating them effectively. Technology can enrich learning and expand opportunities for participation, yet meaningful learning continues to depend on reflection, inquiry, collaboration, critical thinking, and purposeful interaction. From this perspective, AI should be regarded as a valuable educational tool that strengthens learner-centred pedagogy, while teachers remain central to fostering the understanding, judgement, and independent learning skills required for lifelong learning.

Like all narrative literature reviews, this study has several limitations. The review was based on a selected body of peer-reviewed literature and did not attempt to include every publication related to active learning or AI-assisted language learning. Furthermore, the synthesis focused primarily on higher education and English language education, which may limit the transferability of the findings to other educational contexts and disciplines. Future research could examine the long-term impact of AI-assisted active learning on learner engagement and deep learning through empirical and longitudinal studies. Comparative research across different educational levels, cultural contexts, and language learning environments would also contribute to a more comprehensive understanding of how emerging technologies can best support learner-centred pedagogy.

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