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Examining English Teachers' Lesson Plans: A Content Analysis of Higher-Order Thinking Skill Integration

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Abstract: This study investigates the extent and nature of higher-order thinking skill (HOTS) integration in English teachers' lesson plans within English as a Foreign Language (EFL) context. Using Bloom's Revised Taxonomy as the analytical framework, the research employed a qualitative content analysis of 12 lesson plans drawn from secondary and tertiary English teachers in Indonesia. The analysis focused on identifying the presence and types of cognitive processes embedded in learning objectives, instructional activities, and assessments. The findings reveal a predominant emphasis on lower-order thinking skills (LOTS), particularly understanding and applying, while HOTS—such as analyzing, evaluating, and creating—were included less frequently and often lacked alignment across instructional components. Among the HOTS categories, analyzing appeared most commonly, whereas evaluating and creating were significantly underrepresented. This suggests a limited instructional emphasis on critical and creative thinking development in EFL lesson planning. The study concludes that while teachers may recognize the importance of fostering HOTS, structural, curricular, and pedagogical constraints often hinder their consistent implementation. Limitations of the study include the small sample size and exclusive reliance on document analysis. Future research should incorporate classroom observations and teacher interviews to gain a more holistic understanding of how HOTS are operationalized in practice.

Keywords: Bloom's Taxonomy; EFL instruction; higher-order thinking skills; lesson planning; qualitative content analysis

INTRODUCTION

In the evolving landscape of global education, the ability to think critically, solve problems creatively, and make informed decisions has become increasingly vital for learners. These cognitive demands are captured in what educators and policymakers refer to as higher-order thinking skills (HOTS)—a set of intellectual processes that go beyond memorization or the recall of facts (Li et al., 2023; Liu et al., 2024). Rooted in constructivist and student-centered learning paradigms, HOTS comprise cognitive operations such as analyzing, evaluating, and creating, which are situated at the top levels

of Bloom's Revised Taxonomy (Larsen et al., 2022; Parwata et al., 2023). These skills are not only considered essential for academic success but are also critical for preparing learners to participate meaningfully in an information-rich, complex, and uncertain world.

In the field of English as a Foreign Language (EFL), integrating HOTS into classroom instruction presents both opportunities and challenges. On one hand, English language learning offers rich contexts for developing these skills, such as through argumentative writing, critical reading, debate, project-based learning, and problem-solving tasks (Heffington & Coady, 2023; Sumardi & Guci, 2023). On the other hand, EFL teachers often struggle to balance linguistic goals—such as grammar accuracy, vocabulary acquisition, and fluency—with cognitive demands that require abstract reasoning and critical engagement (Yuan et al., 2022). This balancing act is even more complex in contexts where traditional teaching methods or exam-oriented systems still dominate, leaving limited space for instructional approaches that foster deeper thinking. Despite growing awareness of HOTS in the professional discourse of language education, the extent to which these skills are consciously and systematically embedded in teaching practices remains a significant question—particularly in relation to lesson planning, which acts as a critical bridge between curriculum intentions and classroom implementation.

Lesson plans reflect teachers' instructional intentions and serve as structured guides that shape classroom activities, learning objectives, and assessment strategies. Analyzing these plans provides concrete evidence of how educational priorities—such as the promotion of higher-order thinking—are operationalized at the instructional level. While curriculum documents and national standards in many countries emphasize the importance of HOTS (Zainil et al., 2022), the extent to which teachers translate these priorities into daily practice can vary widely. Factors influencing HOTS integration may include teachers' beliefs about teaching and learning, their understanding of cognitive taxonomies, availability of resources, institutional expectations, and professional development experiences (Anderson et al., 2022). Therefore, examining lesson plans offers not only a snapshot of pedagogical planning but also insights into the broader contextual and systemic forces that shape teachers' instructional choices.

Previous research on HOTS in language education has primarily focused on student learning outcomes or classroom interaction (Ma et al., 2023; Nadarajan et al., 2023; Venkatraman et al., 2022). However, studies that investigate how these cognitive skills are embedded in the planning stage, particularly through structured analysis of lesson plans, remain relatively scarce. Addressing this gap is essential for understanding the alignment (or misalignment) between educational objectives and instructional design. Furthermore, such an analysis can inform targeted interventions to support teachers in designing lessons that promote deeper learning, critical thinking, and meaningful engagement with language.

This study, therefore, aims to examine the presence and nature of higher-order thinking skills in English teachers' lesson plans across EFL contexts. Specifically, it seeks to determine the extent of HOTS integration and to categorize the types of higher-order thinking skills emphasized in instructional planning. Employing a content analysis approach, this research provides a systematic lens for investigating how teachers structure

their lessons to promote cognitive engagement beyond lower-order thinking processes such as remembering and understanding.

Research Questions:

1. To what extent are higher-order thinking skills (HOTS) integrated into English teachers' lesson plans at the secondary or tertiary level?
2. What types of higher-order thinking skills (e.g., analyzing, evaluating, creating) are most frequently emphasized in the English teachers' lesson plans?

By addressing these questions, this study contributes to a growing body of knowledge on effective instructional planning in EFL contexts. It offers empirical insights into how English teachers worldwide conceptualize and implement HOTS within the framework of lesson planning, insights that are crucial for aligning classroom practice with contemporary educational standards. The findings are expected to inform curriculum developers, teacher educators, and policymakers on how to support more effective integration of higher-order thinking in language instruction. In doing so, the research not only highlights current strengths and gaps in pedagogical design but also supports the development of language learning environments that nurture critical, independent, and reflective thinkers, equipped to thrive in an increasingly complex global society.

LITERATURE REVIEW

Bloom's Revised Taxonomy and Its Application in EFL Contexts

Bloom's Taxonomy, first introduced by Benjamin Bloom and colleagues in 1956, has long served as a foundational framework for categorizing educational objectives according to levels of cognitive complexity. In 2001, Anderson and Krathwohl revised the original taxonomy to better reflect contemporary understandings of learning and instruction (Rachmawati et al., 2023). This revised version restructured the original hierarchical model into six cognitive categories: Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating—ordered from lower-order thinking skills (LOTS) to higher-order thinking skills (HOTS). The revised taxonomy also replaced the original noun-based labels with verb forms to emphasize active cognitive processes. The first three levels, Remembering, Understanding, and Applying, are considered LOTS, focusing on knowledge recall, basic comprehension, and procedural application (Sudirtha et al., 2022). In contrast, the upper levels, Analyzing, Evaluating, and Creating, represent HOTS, which require learners to engage in critical thinking, judgment, synthesis, and production of new ideas or outputs (Muhayimana et al., 2022). These skills are essential for developing learners' ability to operate independently and flexibly in academic and real-world situations.

In English as a Foreign Language (EFL) context, Bloom's Revised Taxonomy offers a useful tool for designing, evaluating, and improving lesson plans that aim to cultivate both linguistic competence and cognitive development (Moghadam et al., 2023). Particularly, it supports teachers in aligning objectives, tasks, and assessments to promote deeper learning. Prior studies (e.g., Aziz & Rawian, 2022; Heffington & Coady, 2023; Sumardi & Guci, 2023) have emphasized that embedding HOTS in language instruction

encourages learners to move beyond rote memorization and engage meaningfully with language through interpretation, critique, and creation.

Given the increasing emphasis on 21st-century skills in global EFL education, Bloom's Revised Taxonomy serves as a robust framework for analyzing how well lesson plans foster the kinds of thinking that empower learners to use English not just accurately, but also thoughtfully and innovatively. In this study, the taxonomy is used as a coding framework to examine how EFL teachers' lesson plans incorporate various cognitive levels, with a particular focus on the presence and depth of HOTS integration.

Higher-Order Thinking Skills (HOTS) in Education

Higher-order thinking skills (HOTS) refer to complex cognitive processes that go beyond mere recall or recognition of facts. Based on Bloom's Revised Taxonomy (Anderson et al., 2022), HOTS encompass *analyzing*, *evaluating*, and *creating*, the upper three levels in the taxonomy (Edwar et al., 2023). These skills involve critical reasoning, problem-solving, decision-making, and creative thinking, which are essential competencies for success in the 21st century (Aziz & Rawian, 2022). Educators worldwide emphasize HOTS as vital for learners to process information meaningfully, adapt to new situations, and engage in lifelong learning. The development of HOTS aligns with educational paradigms that prioritize learner autonomy, critical reflection, and deep understanding rather than rote memorization (Hamzah et al., 2022; Heffington & Coady, 2023). Consequently, integrating HOTS is viewed as crucial across disciplines and education levels, fostering not only cognitive growth but also personal and social development.

The Role of HOTS in EFL Instruction

In the context of English as a Foreign Language (EFL) learning, HOTS contribute significantly to language proficiency and communicative competence. Language acquisition is not only about learning vocabulary and grammar but also about using language to express ideas, analyze texts, construct arguments, and engage in meaningful communication (Altarriba & Basnight-Brown, 2022). Research indicates that EFL learners exposed to HOTS-based activities develop better critical thinking skills (Yuan et al., 2022), which in turn support language skills such as reading comprehension, writing, speaking, and listening. For example, tasks requiring learners to evaluate opinions, create narratives, or synthesize information from multiple sources challenge learners to use English in cognitively demanding ways, promoting both linguistic accuracy and fluency. Furthermore, fostering HOTS in language learning cultivates learners' metacognitive skills (Erdiana & Panjaitan, 2023; M. Li & Yuan, 2022), enabling them to monitor their understanding and adapt learning strategies accordingly.

Challenges in Implementing HOTS in EFL Classrooms

Despite the recognized importance of HOTS, its implementation in EFL classrooms faces several challenges. Institutional and systemic constraints, such as exam-driven curricula and large class sizes, often limit opportunities for inquiry-based or critical thinking activities (D'Agostino, 2023). Many EFL teachers report difficulties balancing the need to prepare students for standardized tests with the desire to foster HOTS, which are not always explicitly tested (Wang & Wu, 2023). Moreover, insufficient teacher training in HOTS pedagogy and lack of instructional resources hinder effective integration. Teachers may have positive attitudes towards HOTS but lack practical knowledge or confidence to

design and facilitate higher-order learning tasks (Resnick, 2023). These challenges underscore a gap between educational policy and classroom realities, highlighting the need for clearer guidelines, professional development, and supportive learning environments.

Lesson Planning as a Site of HOTS Integration

Lesson plans are fundamental tools that reveal how teachers translate curriculum goals into actionable learning experiences. According to Kaya and Nafiz Kaya (2023), lesson plans reflect teachers' pedagogical beliefs, knowledge, and priorities. They serve as blueprints that guide the selection of content, activities, and assessments aligned with learning objectives. Within the domain of HOTS, lesson planning becomes critical for ensuring that instructional designs promote complex cognitive engagement rather than mere factual recall (Lawson et al., 2023). However, research shows that teachers may struggle to incorporate HOTS systematically in lesson plans, often including HOTS-related objectives superficially without corresponding activities or assessments. Therefore, analyzing lesson plans offers a valuable window into understanding the practical enactment of HOTS in EFL classrooms and the extent to which teachers integrate these skills meaningfully.

Research Gap and Rationale

Despite a growing body of literature emphasizing the importance of higher-order thinking skills (HOTS) in English as a Foreign Language (EFL) instruction, much of the existing research has primarily focused on evaluating the presence of HOTS in textbooks, classroom activities, or assessment tools. While these studies offer valuable insights into how critical thinking is facilitated in practice or represented in curriculum materials, they often overlook the foundational role of lesson planning in shaping instructional decisions. Lesson plans serve as blueprints for classroom teaching, revealing not only what teachers intend to teach but how they conceptualize cognitive engagement. To clearly illustrate the distinction between existing studies and the current research, Table 1 provides a summary comparison of selected previous works related to HOTS integration in EFL education.

Table 1.

Comparison of Previous Studies on HOTS in EFL Education

Paper	Abstract Summary	Main Findings
Erdiana and Panjaitan (2023)	Analyzed Indonesian high school English textbooks and found lower integration of HOTS questions.	HOTS made up only 19.4% of tasks; dominated by 'remember' level (LOTS).
Soe (2024)	Reviewed studies on critical thinking in ELT textbooks.	HOTS less common than LOTS; recommended balanced integration in textbook design.
Resnick (2023)	Examined teacher questions vs student thinking opportunities in class.	HOT tasks were often not followed by opportunities for student thinking; low-quality engagement.
Arthi and Gandhimathi (2025)	Conducted bibliometric analysis of critical thinking in ELT.	Trends showed evolution from collaborative to instructional themes; no focus on planning.

Herreño-Contreras (2023)	Studied HOTS integration in legal English classes.	Students valued HOTS but lacked understanding; HOTS-based approach had professional relevance.
Herlinawati et al. (2024)	Analyzed integration of 21st-century skills (4Cs) in lesson plans.	Teachers' plans showed only partial integration; recommended institutional support.
Hutasuhut and Silalahi (2022)	Analyzed reading tasks in textbooks.	LOTS outnumbered HOTS (75% vs. 25%); focus on recall dominated.
Hamzah et al. (2022)	Reviewed HOTS elements in teaching modules.	Identified metacognition and inquiry as core HOTS components; emphasized teacher roles in planning.
Present Study	Focuses on HOTS in EFL lesson plans to assess cognitive alignment in instructional design.	Identifies uneven and limited integration of HOTS, particularly in objectives and assessment components.

While previous research provides critical insight into how HOTS are implemented in classroom settings or embedded in teaching materials, few studies have systematically analysed lesson plans as a source of data. This represents a significant gap in the literature, as lesson planning is where instructional intentions are first formulated and where the alignment between objectives, tasks, and assessments should ideally occur. By focusing on actual lesson plans created by EFL teachers, this study addresses that gap and provides empirical evidence on the extent and nature of HOTS integration at the planning stage. The findings aim to inform teacher education, curriculum design, and policy efforts seeking to enhance cognitive engagement in English language teaching.

METHODS

Research Design

This study employs a qualitative content analysis approach to systematically examine English teachers' lesson plans for the integration of higher-order thinking skills (HOTS). Content analysis is a rigorous and replicable technique that allows for the identification, categorization, and quantification of specific elements within textual data (Oleinik, 2022). This method is particularly suitable for exploring the extent to which HOTS are embedded in lesson objectives, activities, and assessments, thereby providing empirical evidence of pedagogical intentions and instructional design.

Participants

The study involves a purposive sampling of English teachers from Indonesia who are actively engaged in preparing lesson plans for secondary or tertiary EFL classrooms. The teachers were selected from various public and private institutions across different regions to reflect a diversity of instructional contexts within the Indonesian education system. This sampling method is intentionally used to ensure that the participants selected have relevant experience and are capable of providing the kinds of detailed instructional documents needed for in-depth analysis. Teachers are chosen based on specific criteria that support the study's objectives and methodological rigor.

To be included in the study, participants must be currently teaching English as a Foreign Language in formal educational settings, such as public or private schools, colleges, or

universities. This criterion ensures that the lesson plans reflect real classroom contexts and are aligned with curriculum standards. Additionally, teachers are required to have at least two years of teaching experience, which helps ensure that they possess a certain level of familiarity and competence in lesson planning. It is assumed that teachers with more classroom experience are more likely to create comprehensive and structured lesson plans that reflect intentional pedagogical decisions. Another important inclusion criterion is the participants' willingness to voluntarily share their lesson plans for research purposes. Teachers are informed about the purpose of the study, the use of their lesson plans as data, and the ethical measures in place to protect their anonymity. Only those who provide informed consent are included in the study.

In total, 12 lesson plans were collected for analysis. These plans were selected to represent a range of teaching topics, learning goals, and instructional approaches. The lesson plans were drawn from different teachers and institutions, reflecting a variety of educational contexts within the Indonesian EFL setting. This diversity allowed for a richer and more nuanced analysis of how higher-order thinking skills were integrated across different instructional scenarios.

Data Collection

Data consisted of lesson plan documents provided by twelve participating English teachers. Each lesson plan included detailed descriptions of learning objectives, instructional activities, assessment methods, and accompanying materials or resources. To ensure data validity, the lesson plans were collected for comparable instructional units delivered within a similar academic timeframe. Additionally, brief follow-up interviews were conducted with some of the teachers to clarify ambiguities in the lesson plans and to gather contextual information about their planning processes and pedagogical intentions. However, the primary data source remained the lesson plan texts.

Data Analysis

The data analysis in this study followed a systematic and structured process to ensure the reliability and validity of the findings. The study adopted Bloom's Revised Taxonomy as the analytical framework, which categorizes cognitive processes into six hierarchical levels: remembering, understanding, applying, analyzing, evaluating, and creating. These categories served as the coding criteria to classify the cognitive demands embedded within the lesson objectives, instructional activities, and assessment tasks outlined in the teachers' lesson plans. The taxonomy was particularly appropriate for this study as it clearly differentiates between lower-order thinking skills (LOTS) and higher-order thinking skills (HOTS), which were the primary focus of the analysis.

Each lesson plan was carefully examined to identify and extract relevant components, including stated learning objectives, classroom procedures, and assessment strategies. These elements were then systematically coded according to the cognitive levels specified in Bloom's Taxonomy. The coding was conducted manually without the use of qualitative data analysis software. This process enabled the researcher to determine the extent to which different levels of thinking, particularly HOTS, were represented in the instructional design.

To enhance the trustworthiness and consistency of the coding process, a second coder who was knowledgeable in Bloom's Taxonomy independently coded a subset of the

lesson plans. This inter-coder reliability check served to verify the consistency of the coding scheme. The level of agreement between the two coders was measured using simple percentage agreement, which reached a satisfactory level, indicating that the coding process was applied reliably.

Following the completion of the coding, the data were interpreted through both quantitative and qualitative lenses. Quantitative analysis involved calculating the frequency and distribution of HOTS-related elements across the lesson plans, identifying which cognitive levels were most frequently emphasized. In parallel, the analysis examined the alignment between learning objectives, classroom activities, and assessments to assess the overall coherence of HOTS integration within each lesson plan.

The findings were presented using both numerical summaries (e.g., counts and percentages) and qualitative descriptions. Representative excerpts from the lesson plans were included to illustrate how HOTS were operationalized in practice. This mixed-methods approach to reporting strengthened the credibility of the results and offered a richer, more nuanced understanding of how English teachers embedded higher-order thinking skills in their instructional planning.

FINDINGS

To what extent are higher-order thinking skills (HOTS) integrated into English teachers' lesson plans at the secondary or tertiary level?

The content analysis of 12 English lesson plans revealed a moderate and uneven integration of higher-order thinking skills (HOTS) across the sample. While some lesson plans demonstrated a clear effort to promote critical and creative thinking, the overall presence of HOTS-related objectives and activities was less dominant than that of lower-order thinking skills (LOTS), such as remembering and understanding. This suggests that although teachers are aware of HOTS principles, their application remains inconsistent and often overshadowed by more traditional instructional goals.

To assess the extent of HOTS integration, all lesson plan components—learning objectives, instructional activities, and assessments—were analyzed and coded using Bloom's Revised Taxonomy. The six cognitive categories were then grouped into LOTS (remembering, understanding, applying) and HOTS (analyzing, evaluating, creating) to compare their representation quantitatively. The summary of this analysis is presented in Table 2 below.

Table 2

Distribution of Cognitive Levels Across Lesson Plan Components (N = 12 Lesson Plans)

Cognitive Level	Objectives (n)	Activities (n)	Assessments (n)	Total (n)	Percentage (%)
Remembering	9	6	7	22	18.03%
Understanding	14	13	12	39	31.97%
Applying	11	9	10	30	24.59%
Analyzing	6	5	5	16	13.11%
Evaluating	3	4	3	10	8.20%
Creating	2	4	3	9	7.38%
Total	45	41	40	126	100%

As shown in Table 2, only 28.69% of all coded elements ($n = 36$) represent higher-order cognitive processes. The majority of objectives and tasks focus on LOTS, particularly “understanding” (31.97%) and “applying” (24.59%), which are more closely associated with knowledge acquisition and procedural skills rather than deep thinking or innovation. The most underrepresented HOTS category is “creating,” appearing in only 7.38% of all elements, indicating that opportunities for students to design, construct, or produce original work are relatively rare.

A closer examination of the lesson objectives reveals that HOTS integration is more often implied than explicitly stated. For example, objectives such as “students will analyze a character’s motivation” or “evaluate the persuasiveness of an argument” were observed in only a few lesson plans, typically toward the end of a unit or in performance-based tasks. In contrast, many lessons still focus on comprehension questions, vocabulary matching, or grammar drills—activities that reinforce basic understanding but do not necessarily challenge students to think critically or creatively.

Instructional activities generally followed a teacher-centered approach, with most lessons featuring structured exercises and guided practice rather than open-ended discussion or student-led exploration. While a few lessons included debate activities or project-based tasks, indicating attempts to incorporate evaluation and creation, these were typically isolated instances and not embedded as a central part of the instructional strategy. For instance, one lesson stated an objective such as “*Students will evaluate different viewpoints on a social issue,*” but the only activity was a fill-in-the-blank worksheet summarizing arguments, and the assessment consisted of a multiple-choice quiz. In another case, an activity asked students to “*create a dialogue for a fictional scenario,*” but the lesson objective focused only on “*understanding expressions of agreement,*” and no rubric or follow-up task was included to assess the creative output. These examples highlight the disconnect between instructional intentions and implementation, where HOTS elements appeared but lacked alignment with objectives or assessments, reducing their overall instructional impact.

Assessment tasks also mirrored this pattern. While traditional quizzes and comprehension checks were common, authentic assessments requiring students to synthesize or critique content were limited. For example, only a handful of lesson plans included rubrics for oral presentations or reflective writing tasks that would naturally encourage evaluating or creating. This indicates that HOTS-based assessment remains underutilized, potentially hindering students’ opportunities to demonstrate deeper levels of cognitive engagement.

Overall, the findings suggest that although English teachers are incorporating some higher-order thinking elements into their lesson planning, these instances are sporadic rather than systematic. The heavy reliance on LOTS, especially in learning objectives and assessment, may reflect curriculum pressures, time constraints, or a lack of confidence in designing activities that foster critical and creative thinking. As a result, the development of students’ higher-order thinking skills may be insufficiently supported in practice.

Types of Higher-Order Thinking Skills Most Frequently Emphasized in English Teachers' Lesson Plans

To address the second research question, the study specifically examined the frequency and patterns of each higher-order thinking skill (HOTS) category—analyzing, evaluating, and creating—as defined by Bloom's Revised Taxonomy. These categories were identified and coded across three core components of the lesson plans: learning objectives, instructional activities, and assessments. The goal was to determine not only which HOTS are present but also which are prioritized or marginalized in the planning process.

The results, summarized in Table 2 below, reveal that analyzing is the most frequently emphasized HOTS across the lesson plans, followed by evaluating, while creating is the least represented. These trends suggest that teachers are more inclined to incorporate skills that involve breaking down information and making judgments, rather than encouraging students to produce original content or innovative solutions.

Table 2

Frequency of HOTS Types in Lesson Plan Components (N = 12 Lesson Plans)

HOTS Category	Learning Objectives (n)	Activities (n)	Assessments (n)	Total (n)	Percentage (%)
Analyzing	6	5	5	16	44.44%
Evaluating	3	4	3	10	27.78%
Creating	2	4	3	9	25.00%
Total	11	13	11	36	100%

The analyzing category appears most frequently, accounting for 44.44% of all HOTS elements identified. This skill is generally demonstrated through objectives that prompt students to examine texts, compare contrasting viewpoints, or identify structural features of language. For example, several lesson plans included objectives such as *"Students will analyze the author's tone in a persuasive paragraph"* and activities like *"Break down the key arguments presented in two contrasting opinion texts"* or *"Identify cause-effect relationships in a short story."* These tasks reflect an emphasis on identifying parts, relationships, and underlying structure, key indicators of analytical thinking. These tasks foster analytical thinking by requiring learners to interpret, organize, and dissect information—a key aspect of critical reading and writing.

However, many of these activities were highly structured and teacher-led, often limiting the depth of student engagement. Although analytical tasks were present, they sometimes lacked the openness that allows learners to engage in more independent, interpretative analysis. In some cases, students were asked to analyze within fixed frameworks (e.g., fill-in-the-table activities or guided worksheets), which may not fully develop their critical thinking potential.

Evaluating, which involves judging, critiquing, or defending a position based on criteria, was the second most common HOTS, comprising 27.78% of HOTS-coded elements. Evaluation tasks often appeared in the form of opinion-based discussion prompts, peer feedback sessions, or argumentative writing exercises. For instance, one lesson plan required students to assess the credibility of an online source, while another asked them to justify their stance on a controversial topic through structured debate. These examples

show that some teachers make deliberate efforts to develop evaluative reasoning; however, such efforts were often isolated and typically appeared at the end of a unit or as extension activities, rather than being integrated throughout the lesson.

The creating category, which involves generating new ideas, producing original work, or reorganizing information into novel formats, was the least emphasized, with only 25% representation among HOTS-coded components. Creating tasks were less common but appeared in a few lesson plans through objectives like *"Students will develop a digital brochure promoting local tourism,"* or activities such as *"Create a dialogue based on an alternative ending to the story,"* or *"Design a campaign poster to raise awareness on environmental issues."* These examples illustrate students being asked to generate new content or reorganize information creatively. Moreover, the learning objectives and assessments in many of these cases did not explicitly align with the creation-based activities, raising concerns about the coherence and intentionality of instructional design. In several instances, "creating" was treated as an enrichment activity rather than a core learning goal.

Notably, there was a general lack of scaffolding to support students in performing tasks related to evaluating and creating. Many lesson plans provided little guidance or modeling for how students should approach more complex cognitive tasks. This suggests that while teachers may value HOTS in theory, they may lack confidence or pedagogical strategies for effectively fostering them in practice.

DISCUSSION

The analysis of English teachers' lesson plans in this study reveals more than just a numerical imbalance between higher-order and lower-order thinking skills—it surfaces the pedagogical mindset and structural limitations that shape EFL instruction in real-world classrooms. The integration of HOTS, while acknowledged as important in global education discourse, appears to remain peripheral in actual planning practices (Cheng et al., 2023). This discrepancy calls for a deeper examination not just of teacher behavior, but of the broader educational system that influences it.

A notable finding is the predominance of *analyzing* among the HOTS categories. This trend may reflect a pedagogical comfort zone, where teachers engage students in text-based interpretation or comparison tasks that are still relatively structured and manageable within traditional classroom formats (Hwang et al., 2019). Unlike *creating*, which demands open-endedness and learner autonomy, or *evaluating*, which requires students to justify judgments—*analyzing* can be guided more tightly by the teacher (Hsia et al., 2022). This suggests that even when HOTS are present, they may be filtered through a lens of control and predictability, limiting their transformative potential.

The underrepresentation of creating in lesson plans, often relegated to optional projects or homework, highlights a persistent underestimation of learners' generative capabilities in EFL settings. Teachers may worry that students lack the linguistic proficiency to express original ideas in English, leading to concerns about task feasibility, grading difficulty, and classroom management. Additionally, creative tasks often require more time to plan, implement, and assess compared to closed-ended exercises, which can discourage their use in tightly scheduled or resource-constrained environments.

(Heffington & Coady, 2023). Teachers may also feel inadequately prepared to scaffold open-ended, student-driven tasks, especially if they have not received training in creativity-oriented pedagogy (Resnick, 2023). Moreover, creative assignments are often perceived as incompatible with exam-oriented instruction, where success is typically measured by standardized test scores emphasizing factual recall and accuracy (W. Li et al., 2023). This perception is reinforced by institutional policies, curriculum mandates, and high-stakes assessment systems that prioritize lower-order outcomes. Thus, the avoidance of creation-based tasks may reflect not only pedagogical beliefs but also systemic limitations that shape teachers' planning decisions (Zainil et al., 2022).

Interestingly, even when HOTS-based tasks are included, there is often a lack of instructional coherence—a disconnect between objectives, classroom activities, and assessments. This could point to a limited understanding of constructive alignment (D'Agostino, 2023), which posits that effective learning occurs when all elements of instruction are systematically aligned. Without this alignment, even well-intentioned HOTS tasks may feel disjointed or tokenistic, failing to form part of a meaningful learning trajectory.

The study's findings also echo insights from previous scholarship. For instance, Resnick (2023) argues that while teachers may endorse higher-order thinking in principle, they often struggle with how to scaffold and assess such thinking in practice. Similarly, D'Agostino (2023) highlights the cultural and institutional barriers that EFL teachers face when attempting to promote learner-centered thinking skills in exam-driven environments. These structural constraints may explain why HOTS integration in lesson planning remains sporadic rather than systematic.

Crucially, the results of this study should not be interpreted as a critique of individual teachers, but rather as a reflection of a broader instructional culture, one in which HOTS are still often seen as add-ons rather than foundational to English language learning (Rachmawati et al., 2023). If we want students to think critically in and through the target language, curriculum developers, teacher educators, and school leaders must work collaboratively to create space for cognitive complexity in lesson design, delivery, and assessment.

Future efforts should move beyond simply advocating for HOTS to building pedagogical literacy around HOTS. This includes training teachers not only in the taxonomy itself, but in designing integrated learning experiences that support students to gradually move from understanding toward creation. Moreover, assessment frameworks need to evolve to recognize and reward the full spectrum of cognitive engagement, not just correct answers but also justified reasoning, thoughtful critique, and creative output.

CONCLUSION

This study examined how English teachers integrate higher-order thinking skills (HOTS) into their lesson plans using Bloom's Revised Taxonomy as an analytical framework. The findings indicate that while some elements of HOTS, particularly analyzing, are present, their inclusion is limited and uneven across instructional components. Creative and evaluative thinking tasks remain notably scarce, and many lesson plans reflect a stronger focus on lower-order thinking skills, such as understanding and applying. Furthermore, a

lack of alignment between objectives, activities, and assessments suggests that teachers may struggle to design cohesive learning experiences that fully promote cognitive complexity.

In relation to Research Question 1, which asked “*To what extent are higher-order thinking skills (HOTS) integrated into English teachers’ lesson plans at the secondary or tertiary level?*” The study found that HOTS were only moderately represented (28.69%) and were often overshadowed by LOTS, particularly understanding and applying. This limited presence of HOTS suggests that lesson plans may not be fully supporting the development of students’ critical and creative thinking abilities. For teaching practice, this highlights the need for professional development focused on aligning objectives, activities, and assessments to encourage deeper cognitive engagement.

For Research Question 2, which explored “*What types of higher-order thinking skills are most frequently emphasized in the English teachers’ lesson plans?*” The analysis revealed that *analyzing* was the most frequently integrated HOTS, followed by evaluating and creating. However, creation tasks were the least represented and often lacked alignment with objectives or assessments. This suggests that teachers may need further support in designing and implementing open-ended, student-centered activities that promote generative thinking. Encouraging the intentional integration of creating tasks, alongside scaffolding strategies, may help learners move from surface-level understanding to independent knowledge production.

Despite its contributions, this study has several limitations. The sample size was relatively small and limited to a specific number of lesson plans, which may not capture the full diversity of teaching practices across different regions, proficiency levels, or educational systems. Additionally, the study relied on document analysis without triangulation from classroom observations or teacher interviews, which could provide deeper insights into instructional intent and implementation. Future research could adopt a mixed-methods approach that includes teacher perspectives, classroom practices, and student responses to HOTS-oriented instruction. Longitudinal studies exploring how professional development impacts teachers’ ability to design and implement HOTS-integrated lessons would also be valuable in informing policy and teacher education programs.

REFERENCES

- Altarriba, J., & Basnight-Brown, D. (2022). The psychology of communication: The Interplay between language and culture through time. *Journal of Cross-Cultural Psychology*, 53(7–8), 860–874. <https://doi.org/10.1177/00220221221114046>
- Anderson, R. C., Katz-Buonincontro, J., Bousselot, T., Mattson, D., Beard, N., Land, J., & Livie, M. (2022). How am I a creative teacher? Beliefs, values, and affect for integrating creativity in the classroom. *Teaching and Teacher Education*, 110, 103583. <https://doi.org/10.1016/j.tate.2021.103583>
- Arthi, M. P., & Gandhimathi, S. N. S. (2025). Research trends and network approach of critical thinking skills in English Language Teaching – A bibliometric analysis implementing R studio. *Heliyon*, 11(2), e42080. <https://doi.org/10.1016/j.heliyon.2025.e42080>

- Aziz, M., & Rawian, R. (2022). Modeling higher order thinking skills and metacognitive awareness in English reading comprehension among university learners. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.991015>
- Cheng, Y. P., Lai, C. F., Chen, Y. T., Wang, W. S., Huang, Y. M., & Wu, T. T. (2023). Enhancing student's computational thinking skills with student-generated questions strategy in a game-based learning platform. *Computers and Education*, 200(1), 104794. <https://doi.org/10.1016/j.compedu.2023.104794>
- D'Agostino, T. (2023). Examination reform for higher order thinking: A case study of assessment-driven reform in Uganda. *International Journal of Educational Development*, 103, 102918. <https://doi.org/10.1016/j.ijedudev.2023.102918>
- Edwar, Putri, R. I. I., Zulkardi, & Darmawijoyo. (2023). Developing a workshop model for high school mathematics teachers in constructing HOTS questions through the Pendidikan Matematika Realistik Indonesia approach. *Journal on Mathematics Education*, 14(4), 603–626. <https://doi.org/10.22342/jme.v14i4.pp603-626>
- Erdiana, N., & Panjaitan, S. (2023). How is HOTS integrated into the Indonesian high school English textbook? *Studies in English Language and Education*, 10(1), 60–77. <https://doi.org/10.24815/siele.v10i1.26052>
- Hamzah, H., Hamzah, M. I., & Zulkifli, H. (2022). Systematic literature review on the elements of metacognition-based Higher Order Thinking Skills (HOTS) teaching and learning modules. *Sustainability*, 14(2), 813. <https://doi.org/10.3390/su14020813>
- Heffington, D. V., & Coady, M. R. (2023). Teaching higher-order thinking skills to multilingual students in elementary classrooms. *Language and Education*, 37(3), 308–327. <https://doi.org/10.1080/09500782.2022.2113889>
- Herlinawati, H., Marwa, M., Ismail, N., Junaidi, Liza, L. O., & Situmorang, D. D. B. (2024). The integration of 21st century skills in the curriculum of education. *Heliyon*, 10(15), e35148. <https://doi.org/10.1016/j.heliyon.2024.e35148>
- Herreño-Contreras, Y. A. (2023). Mapping higher order thinking skills in English for specific purposes classes. *Lengua y Sociedad*, 22(2), 417–454. <https://doi.org/10.15381/lengsoc.v22i2.25312>
- Hsia, L. H., Hwang, G. J., & Lin, C. J. (2022). A WSQ-based flipped learning approach to improving students' dance performance through reflection and effort promotion. *Interactive Learning Environments*, 30(2), 229–244. <https://doi.org/10.1080/10494820.2019.1651744>
- Hutasuhut, M. L., & Silalahi, R. S. (2022). Analysis of reading exercise questions in an English textbook for year x senior high school students based on bloom's. *Linguistica*, 11(3), 760–770. <https://doi.org/10.24114/jalu.v11i3.39601>
- Hwang, G. J., Yin, C., & Chu, H. C. (2019). The era of flipped learning: promoting active learning and higher order thinking with innovative flipped learning strategies and

- supporting systems. *Interactive Learning Environments*, 27(8), 991–994. <https://doi.org/10.1080/10494820.2019.1667150>
- Kaya, Z., & Nafiz Kaya, O. (2023). Gathering rich data on preservice science teachers' pedagogical content knowledge through their lesson plans. *Journal of Teacher Education*, 74(1), 10–22. <https://doi.org/10.1177/00224871221105801>
- Larsen, T. M., Endo, B. H., Yee, A. T., Do, T., & Lo, S. M. (2022). Probing internal assumptions of the Revised Bloom's Taxonomy. *CBE—Life Sciences Education*, 21(4). <https://doi.org/10.1187/cbe.20-08-0170>
- Lawson, M. J., Van Deur, P., Scott, W., Stephenson, H., Kang, S., Wyra, M., Darmawan, I., Vosniadou, S., Murdoch, C., White, E., & Graham, L. (2023). The levels of cognitive engagement of lesson tasks designed by teacher education students and their use of knowledge of self-regulated learning in explanations for task design. *Teaching and Teacher Education*, 125, 104043. <https://doi.org/10.1016/j.tate.2023.104043>
- Li, M., & Yuan, R. (2022). Enhancing students' metacognitive development in higher education: A classroom-based inquiry. *International Journal of Educational Research*, 112, 101947. <https://doi.org/10.1016/j.ijer.2022.101947>
- Li, W., Huang, J.-Y., Liu, C.-Y., Tseng, J. C. R., & Wang, S.-P. (2023). A study on the relationship between student' learning engagements and higher-order thinking skills in programming learning. *Thinking Skills and Creativity*, 49, 101369. <https://doi.org/10.1016/j.tsc.2023.101369>
- Liu, J., Liu, Z., Wang, C., Xu, Y., Chen, J., & Cheng, Y. (2024). K-12 students' higher-order thinking skills: Conceptualization, components, and evaluation indicators. *Thinking Skills and Creativity*, 52, 101551. <https://doi.org/10.1016/j.tsc.2024.101551>
- Ma, X., Xie, Y., & Wang, H. (2023). Research on the construction and application of teacher-student interaction evaluation system for smart classroom in the post COVID-19. *Studies in Educational Evaluation*, 78, 101286. <https://doi.org/10.1016/j.stueduc.2023.101286>
- Moghadam, Z. B., Narafshan, M. H., & Tajadini, M. (2023). The effect of implementing a critical thinking intervention program on English language learners' critical thinking, reading comprehension, and classroom climate. *Asian-Pacific Journal of Second and Foreign Language Education*, 8(1), 15. <https://doi.org/10.1186/s40862-023-00188-3>
- Muhayimana, T., Kwizera, L., & Nyirahabimana, M. R. (2022). Using Bloom's taxonomy to evaluate the cognitive levels of primary leaving English exam questions in Rwandan schools. *Curriculum Perspectives*, 42(1), 51–63. <https://doi.org/10.1007/s41297-021-00156-2>
- Nadarajan, K., Abdullah, A. H., Alhassora, N. S. A., Ibrahim, N. H., Surif, J., Ali, D. F.,

- Mohd Zaid, N., & Hamzah, M. H. (2023). The effectiveness of a technology-based isometrical transformation flipped classroom learning strategy in improving students' higher order thinking skills. *IEEE Access*, 11, 4155–4172. <https://doi.org/10.1109/ACCESS.2022.3230860>
- Oleinik, A. (2022). Content analysis as a method for heterodox economics. *Journal of Economic Issues*, 56(1), 259–280. <https://doi.org/10.1080/00213624.2022.2025730>
- Parwata, I. G. A. L., Jayanta, I. N. L., & Widiana, I. W. (2023). Improving metacognitive ability and learning outcomes with problem-based Revised Bloom's Taxonomy oriented learning activities. *Emerging Science Journal*, 7(2), 569–577. <https://doi.org/10.28991/ESJ-2023-07-02-019>
- Rachmawati, D., Suharno, S., & Roemintoyo, R. (2023). The effects of learning design on learning activities based on higher order thinking skills in vocational high schools. *Open Education Studies*, 5(1). <https://doi.org/10.1515/edu-2022-0202>
- Resnick, M. S. (2023). Teachers' presentation of higher-order thinking questions and student engagement: Missing out on HOT opportunities. *Thinking Skills and Creativity*, 50, 101412. <https://doi.org/10.1016/j.tsc.2023.101412>
- Soe, T. (2024). Investigating critical thinking in ELT Textbooks: A systematic literature review of textbook evaluation studies. *Theory and Practice of Second Language Acquisition*, 10(1), 1–29. <https://doi.org/10.31261/TAPSLA.13882>
- Sudirtha, I. G., Widiana, I. W., & Adijaya, M. A. (2022). The effectiveness of using Revised Bloom's Taxonomy-Oriented learning activities to improve students' metacognitive abilities. *Journal of Education and E-Learning Research*, 9(2), 55–61. <https://doi.org/10.20448/jeelr.v9i2.3804>
- Sumardi, S., & Guci, R. I. (2023). HOTS-based language assessment literacy: Challenges and prospects in English language teaching. *Indonesian Journal of Applied Linguistics*, 12(3), 831–840. <https://doi.org/10.17509/ijal.v12i3.44261>
- Venkatraman, S., Benli, F., Wei, Y., & Wahr, F. (2022). Smart classroom teaching strategy to enhance Higher Order Thinking Skills (HOTS)—An agile approach for education 4.0. *Future Internet*, 14(9), 255. <https://doi.org/10.3390/fi14090255>
- Wang, Y., & Wu, Z. (2023). Adapting or adopting? Critical thinking education in the East Asian cultural sphere: A systematic integrative review. *Thinking Skills and Creativity*, 49, 101330. <https://doi.org/10.1016/j.tsc.2023.101330>
- Yuan, R., Liao, W., Wang, Z., Kong, J., & Zhang, Y. (2022). How do English-as-a-foreign-language (EFL) teachers perceive and engage with critical thinking: A systematic review from 2010 to 2020. *Thinking Skills and Creativity*, 43, 101002. <https://doi.org/10.1016/j.tsc.2022.101002>
- Zainil, M., Kenedi, A. K., Rahmatina, Indrawati, T., & Handrianto, C. (2022). The influence of a STEM-based digital classroom learning model and high-order thinking skills on the 21st-century skills of elementary school students in Indonesia.

Journal of Education and E-Learning Research, 10(1), 29–35.
<https://doi.org/10.20448/jeelr.v10i1.4336>