

Reflective Practice in Navigating Challenges in the Enactment of HOTS: Insight from Indonesian EFL Teachers

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ABSTRACT

This study aims to explore English teachers' collective understanding of how they navigate challenges in enacting HOTS through their reflective practices. The research used a qualitative approach with a case study design incorporating three English teachers as research participants. Data were collected through semi-structured interviews, classroom observations, and teachers' reflective journals, then analyzed using thematic analysis guided by Farrell's reflective practice framework. The results showed that teachers faced various challenges in the enactment of HOTS, including limited student abilities and motivation, large class sizes, limited learning time and facilities, and limited opportunities for collaborative learning. Nevertheless, teachers can respond to these challenges through reflective practices. These reflective practices help them evaluate the learning process, design improvements for future learning, and make pedagogical decisions directly by adjusting the classroom situation. The study's findings show that reflection is not only an evaluation but also a mechanism for addressing challenges and strengthening agency in adaptive decision-making. In doing so, reflective practice enables teachers to adjust learning strategies to students' needs and dynamic learning conditions. This study

concludes that reflective practice is an important component in supporting the effective implementation of HOTS and contributing to the professional development of teachers, and improving the quality of English language learning.

Keywords: Challenges, EFL Teachers, HOTS, Reflective Practice, Teachers' Professional Development

INTRODUCTION

In the enactment of HOTS, especially in English classes in Indonesia, many challenges are faced by teachers, both from student factors, infrastructure, and institutions. Previous research has found that teachers recognize the importance of HOTS but are unable to clearly differentiate HOTS tasks [1]. Many teachers struggle with a limited understanding of HOTS concepts, inadequate training and support, and difficulty designing HOTS-based instruction and assessments. Teachers found difficulty in constructing HOTS-based questions due to a poor understanding of Bloom's Taxonomy and operational verbs [2]. Three English teachers in West Sumatra also face difficulties translating HOTS knowledge from training into real classroom practice [3]. The implementation of HOTS in EFL classrooms remains weak, particularly in Indonesia, due to low teacher competence

and inadequate infrastructure [4]. In addition, many teachers report a lack of sustained and practical training that directly supports HOTS integration. The previous studies [5,3] noted that available training programs were short, theoretical, and often focused only on question design. Moreover, the teachers' limited professional training contributes to confusion and poor HOTS assessment practices [6]. Students also found struggled with learning English, particularly in EFL. Students with lower English proficiency face language barriers that hinder their ability to engage in HOTS tasks [7]. The students' limited vocabulary mastery may have made it difficult for them to focus on the learning activity [8]. In addition, teachers often lack access to adequate resources, such as learning materials, technology, and classroom facilities, which support HOTS pedagogy. Several studies, such as [3], have emphasized that limited internet access and learning media remain major obstacles. In the same year, [9] highlighted technological constraints and low digital literacy during online HOTS instruction.

Then, previous research found teachers' strategies in navigating challenges in the implementation of HOTS in the classroom, EFL, to teachers' questioning strategies. Several learning methods can be applied to help teachers improve students' critical thinking skills, such as PBL and PjBL. Previous studies have shown positive results, such as team-based project learning, which is reported to be effective in enhancing critical thinking skills and is recommended for broader application in both theory-based and practical courses [10]. However, team-based project learning also poses challenges for teachers, as many students do not actively contribute to group projects, thereby reducing their effectiveness [11].

Empirical evidence consistently found that teachers recognize reflection as vital, but lack systematic practice and institutional support. Reflection tends to focus on immediate, surface-level classroom issues rather than deep pedagogical reasoning. However, when done with deep meaning,

reflective teaching can foster professional development, responsiveness, and the integration of HOTS. According to [12]'s framework, reflection can occur at the end of learning (reflection-on-action), before learning in anticipation (reflection-for-action), and during teaching and learning activities (reflection-in-action). Teachers' reflections allow them to identify strengths and weaknesses in their teaching, refine classroom strategies, and develop their professional identity and self-awareness [13,14,15]. Teachers' reflective notes indicate that low student motivation and limited abilities hinder HOTS-oriented learning and reflective progress. This reflection helps teachers adjust their strategies to re-engage students, such as using games, bilingual scaffolding, or group work [16,17]. Reflective practice enhances teachers' understanding and skills [18], fosters student motivation [19], and positively correlates with teacher self-efficacy and research engagement [20].

Based on my review of previous studies, many investigations have been carried out on the challenges faced by teachers in the implementation of HOTS. Then, a previous study on reflective practice on teachers produced a positive impact on teachers. However, to my knowledge, there is still very little research that has shed light on how reflection serves as a mechanism that helps teachers respond to the challenges of enacting HOTS in the everyday classroom practice. Therefore, this study aimed to fill this gap by exploring English teachers' collective understanding of how they navigate challenges in enacting HOTS through their reflective practices. This study answered these research questions: 1) What are the challenges faced by English teachers in enacting HOTS? 2) How do English teachers use reflection to respond to the challenges of HOTS enactment?

MATERIALS & METHODS

This study employed a qualitative approach, a case study research design, to explore English teachers' collective understanding of

how they navigate the challenges of HOTS implementation through reflective practice. According to [21], the case study approach aimed to understand complex social phenomena in real-life contexts, particularly when the boundaries between phenomena and context are not clearly defined. Using this research design, the researcher could explore in depth the reflective practices of EFL teachers. This research was conducted at a senior high school in Tangerang Regency, Banten Province, Indonesia, as the research site due to its active engagement with the Merdeka curriculum, preliminary evidence of HOTS implementation, and variation in textbooks. The participants in this study were three purposively selected English teachers. To uphold the research ethics, the respondents' identities have been pseudonymized to protect their privacy. They were Ratna, Idris, and Lestari. Ratna has been teaching English for more than 25 years and holds a master's degree as her highest education. Idris has been teaching for more than 25 years and holds a bachelor's degree as his highest level of education, and Lestari has been teaching English for more than 15 years and holds a master's degree as her highest level of education. The participants purposively selected based on the inclusion criteria such as, 1) minimum of two years teaching experience at the senior high school level, 2) have exposure to HOTS concept in practicing and designing HOTS tasks 3) active engagement with Merdeka curriculum, 4) have a willingness to participate in all research stages including interviews, classroom observations, and document sharing, capacity and 5) willingness to reflect openly and deeply on their teaching practices, 6) used any textbook both government published and commercial textbook. The data were collected through semi-structured interviews, classroom observation, and reflective journals. The procedure of collecting the data: 1) the researcher conducted a preliminary study, 2) gave a permission letter to the school, 3) gave teachers informed consent forms, 4) did classroom observations, 5) gave teachers the

reflective journal, and 6) interviewed the teachers. After the data were collected, the researchers analyzed them using thematic analysis [22], and the analysis process was also guided by Farrell's reflective practice framework [12]. Lastly, to maintain the trustworthiness of the data, the researchers used data triangulation and member checking after data analysis to ensure the researchers' interpretation and to validate the research instruments through expert judgment.

RESULT

Challenges Faced by English Teachers in Enacting HOTS

In designing HOTS-oriented lesson plans, English teachers faced significant challenges during classroom enactment. These challenges highlighted the complex gap between ideal pedagogical planning and real classroom conditions.

Students-Related Challenges

The first challenge found was on students' readiness to engage in HOTS learning, including cognitive, affective, and participatory aspects. Based on classroom observations, many students in almost all classes were passive during instruction. This finding was well confirmed through the interview.

For example, Lestari stated that some of her students were passive and argued that not all of them enjoy learning English. This was revealed in the following interview excerpt:

"Yes, of course. Because we couldn't ask all the students to join our class throughout the year. I mean, everyone has their own interest ... I couldn't ask, okay, you have to join this, but if they have, I mean, they are lacking something, I think they will say, oh yeah, yes, yes, yes, yes, yes. But not having to solve the problem." (Interview Lestari, March 3, 2026)

Therefore, students like this also pose a challenge for English teachers, but for them, this was a common occurrence.

The second challenge was students' low English proficiency. This was also confirmed by the teacher during the interview. They

acknowledged that one challenge in implementing HOTS was students' low language proficiency; for instance, Ratna noted this. This was revealed in the following interview excerpt:

"...I have so many students who have low ability, sometimes they cannot read, they cannot write properly in English, also in Indonesia..." (Interview, Ratna, February 6, 2026)

This excerpt highlights that it was exceptionally difficult for students to engage in HOTS, when they have not yet mastered the fundamental vocabulary and comprehension skills necessary to decode the instructional material.

The third challenge was that the students had low motivation to learn. It was found in Lestari's classroom and Idris's classroom. During the classroom observation, the students were sleeping and talking with their peers while the teacher was still lecturing. Idris also acknowledged in the interview that his students were not focused during English lessons. This finding was revealed in the following interview excerpt:

"Yeah, I think the student is not focused on studying. I think I ask them, I ask them, or I ask her, or I ask him, I ask him for the question, and then it must be answered by him or by her. That cannot answer, I think I give the punishment, for example, for doing the test that I get on the whiteboard..." (Interview, Idris, February 13, 2026)

This excerpt above showed that the teacher resorted to punishment when students could not answer questions.

The fourth challenge was students' confusion regarding instructions. This situation was acknowledged by Lestari. She said that sometimes the students still get confused with her instructions due to their limited vocabulary. *"Then, so when they didn't know what my instruction is ... for example, like this. I will give them the example for solving the difficulty for my students. What do we have today, Miss? Firstly, you have to analyze, you have to underline the part of speech... before they have analyzed the text, I will ask them, I will teach them ... I will give*

them the materialist first. So I think it may, and after that...what should you do? You have to search in the dictionary or something that you have to decide, okay, this is the objective, not something." (Interview, Lestari, March 3, 2026)

The excerpt above showed that teachers must employ scaffolding strategies to bridge the gap between students' limited vocabulary and the students' cognitive demands of HOTS instruction. Lestari demonstrated that the variety of students' backgrounds and the facilities that support teaching and learning also became challenges for her in enacting HOTS in English learning, particularly in her teaching approaches. *"When we implement HOTS, we have to consider positions and students' backgrounds; the facilities actually influence us. And then by having a new approach, yeah, that's why even the facilities, the students' backgrounds become my challenges for having a new approach"* (Interview, Lestari, March 3, 2026)

The excerpt above showed that students' background and facilities are really influenced in teaching and learning HOTS in English, but the inadequate facilities and varied students' backgrounds tend to challenge her.

Contextual-Related Challenges

The third challenge found was the contextual aspect, the impact of external factors, such as class sizes, facilities, and classroom environment, on the enactment of HOTS. The first contextual challenge that became a teacher's constraint was the large class size. During the classroom observation, I found more than 35 students present. This was reported by all teachers; for example, Ratna said that, because of the large class size, the classroom atmosphere had become disruptive and that some students were dozing off during class. This was revealed in the following interview excerpt:

"Yes. So, I see that a lot of students in the classroom, like yesterday, there are crowd lot of students. Yeah, a lot of students feel sleepy, so I have to take them, yeah, go outside this, wash your face to make you

aware. Okay. All right.” (Interview, Ratna, February 6, 2026)

In addition, Lestari also argued that the large class size made it hard for them to cope with all of the students.

“Yes, definitely. The previous year, the class consisted of 50 students, almost all of them. And now it is 36. I teach the 11th now, the previous one, so starting from this year, for the 10th grade is only 36. But the levels of 11th and 12th are still in the upper range, about 45. It's a big class, and it's hard for us to cope with all the students.” (Interview, Lestari, March 3, 2026)

The second challenge in context, which became a teacher's constraint, was limited facilities, particularly for Idris. As a 12th-grade General English teacher, he faced a major challenge because the school did not provide official textbooks for that grade level with the proper curriculum. This situation put him in a difficult position, as he must design HOTS materials without a reliable literary guide. To address this, Idris has taken the initiative to adapt materials from the internet and reuse textbooks from the old curriculum (KTSP). This finding was revealed in the following interview excerpt:

“There is no textbook for general English in 12th grade, instead I use from the internet and the textbook KTSP curriculum from the government... Yeah, I have. There are many obstacles to school facilities. Because I don't have good material for teachers and good material for students. By using technology, I think it's no problem because in focus, there are a lot of in-focus uses. And then we just bring my laptop from home to the setting, for teaching English.” (Interview, Idris, February 13, 2026)

Although textbook resources were very limited, Idris strived to mitigate these constraints by leveraging technology. He used his personal laptop and a projector (InFocus) to present materials he had sourced himself.

The third contextual challenge identified was time management issues. It happened with Idris. During the classroom observation, it was clear that he did not facilitate small-

group work. This was confirmed during the interview, where the limited time posed a challenge for him. This was revealed in the following interview excerpt:

“Because of time usage, not free. I think limited time. Limited time makes me an obstacle because time is not... It's not smart, not smart time. I think I will give the student time to study for the next season.” (Interview, Idris, February 13, 2026)

The excerpt above showed that time management was a common contextual constraint that forced teachers to make compromises. Consequently, as seen in Idris's case, they might opt to postpone group work to the "next session" or revert to individual tasks to ensure the curriculum is covered within the allotted time.

Lastly, the identified contextual challenge was an uncondusive classroom environment, often caused by overcrowding. Based on classroom observations, an unsupportive classroom environment significantly hindered teachers' ability to keep students focused on HOTS material. This condition was shown in Idris's class. The researcher found that classroom management posed a major challenge due to disciplinary issues, such as many students remaining outside the classroom even after class had begun. Additionally, the phenomenon of “a class within a class” also occurred. Many students were talking in small groups while the teacher was explaining in front of the class. This was not only a disciplinary issue, but also became a cognitive barrier. When the classroom atmosphere was uncontrolled, meaningful interaction between teachers and students, which was essential for HOTS discussions, became difficult to achieve. This situation forced teachers to devote more energy to managing the students' behavior than to fostering students' critical thinking.

Instructional-Related Challenges

The second challenge identified was the instructional aspect. These challenges included teachers not clearly communicating learning objectives and instructions, as well as incomplete pedagogical planning. The

first instructional challenge was on the communication of learning objectives. Based on classroom observation, Idris did not convey the learning objectives at the beginning of the lesson. The second significant instructional challenge shown was a lack of clarity in task instructions. It caused confusion among students in understanding the assigned tasks. Clarity of instructions was a crucial factor in HOTS learning because ambiguous instructions could hinder students from conducting in-depth analysis or evaluation. This was followed up by Idris in an interview process, he described a phenomenon in which students often simply replied “yes, yes, yes” when he asked students’ understanding of his instructions, even though in reality they were still confused.

“Yes, three times yes, it makes me optimistic. Then, after that, if I ask her, him, or them, I find it difficult. I find it difficult, this lesson, if I use English, especially for vocabulary.” (Interview, Idris)

The excerpt above showed that the challenge of instructional clarity was not only a technical issue of the teacher’s delivery but also related to students’ limited vocabulary. Similarly happened with Lestari. *“Since students often struggled to express their*

arguments due to limited vocabulary, I decided to provide more vocabulary support before starting HOTS activities such as debates.” (Interview, Lestari)

Pedagogical Related Challenges

The third challenge identified concerned the pedagogical aspect. The data analysis found a specific gap in collaborative learning. Collaborative learning was one of the teaching strategies supporting HOTS. The social interaction and group discussions allowed the students to test each other’s ideas, engage in debate, and solve problems together. Nevertheless, the classroom observations showed that collaborative learning has not been fully optimized by all three teachers. The main finding was that neither Idris nor Lestari facilitated small-group work. Although the Lestari facilitated group tasks, the group sizes remained quite large, averaging 15–20 students per group. Large group sizes tend to lead to uneven interaction, with only a few students active while the others remain passive or simply “free-ride”. Table 1 below shows the challenges identified in their classroom practices.

Table 1. Challenges that were identified when conducting classroom observations

Challenges Area	Indicators	Teachers
Pedagogical challenges	Teacher struggles to facilitate analytical/evaluative discussions	Idris
	Instructions for HOTS tasks are unclear	Idris
	The teacher relies too much on lecturing	Idris
	Time management issues	Idris, Lestari, Ratna
Students-related challenges	Low student proficiency levels	Idris, Lestari, Ratna
	Passive student participation	Idris, Lestari
	Students rely heavily on peers	Idris, Lestari, Ratna
	Low motivation to complete HOTS tasks	Idris, Ratna
	Students appear confused about teachers’ HOTS task instructions	Idris, Lestari
Contextual-related challenges	Large class sizes	Idris, Lestari, Ratna
	Limited technology/facilities	Idris, Lestari
	The classroom environment is noisy or uncondusive	Idris

Collectively, this finding showed that English teachers faced complex challenges in enacting HOTS, encompassing the students' readiness such as low motivation, passive participation, instructional aspects, such as learning objectives and instruction not conveyed smoothly, contextual aspect such as, large size classroom, limited facilities, time constraint, and uncondusive learning environments as well as pedagogical aspect such as the collaborative learning that has not optimal yet. These findings emphasized a gap between the ideal lesson plan and the real classroom context. Therefore, English teachers should adapt scaffolding strategies, instructional adjustments, and classroom management to promote outcomes in HOTS-oriented English learning.

Reflection of English Teachers in Enacting HOTS

Through this reflective process, teachers could evaluate various instructional challenges, such as student difficulties, time constraints, limitations in students' foundational skills, and other contextual barriers that affect the implementation of HOTS in the classroom. The findings were presented by themes, representing reflection-on-action, reflection-for-action, and reflection-in-action.

Evaluative Reflection

Through reflection after learning (reflection-on-action), teachers reflected on various challenges that arose during the enactment of HOTS in the classroom. Using a reflective journal helped teachers identify students' difficulties, the effectiveness of learning strategies, and the challenges that affect the achievement of HOTS learning objectives. For example, Ratna identified that students were struggling to complete HOTS tasks, such as writing assignments, due to limited vocabulary.

Additionally, she also recognized that there were misconceptions regarding the use of technology. Many students were found to simply copy and paste content from the internet as their final answers. In response to

these challenges, she did not allow them to persist. Based on her reflections, she actively modified her teaching approach by planning more targeted instructional scaffolding, particularly to support students' writing skills.

"I should support them by checking their task, giving some explanation about how to make good writing properly. Includes syntax, compound, and complex sentences, and so on." (Reflective Journal, Ratna, February 11, 2026)

Additionally, she also provided explicit instructions on using technology to prevent students from simply copying and pasting from the internet. The teacher guided them to use technology responsibly and wisely, encouraging them to express their own ideas before using online sources to support their learning.

"After identifying these challenges through reflection, I planned several adjustments for my subsequent lessons...I planned to give clearer instructions about academic honesty to reduce students' tendency to copy and paste information from the internet. I also guided students to use their mobile phones more responsibly by encouraging them to write their ideas in their own words first and only use online sources to check unfamiliar vocabulary or find supporting information..., as I realized that students need both linguistic support and clear guidance in using technology to participate more effectively in HOTS-oriented writing tasks." (Reflective Journal, Ratna)

The excerpt from the reflective journal above prompted her to reflect on action, specifically making adaptive pedagogical adjustments to address her students' learning difficulties. She not only identified the challenges encountered in previous lessons but also prepared proactive strategies. Through her reflective process, she became more aware of students' need for linguistic support, clear guidance, and appropriate use of technology during HOTS lessons.

"Many students struggled to complete their writing because they did not have enough vocabulary... I became more aware of the

patterns behind these challenges. I realized that students not only need to practice higher-order thinking skills but also require sufficient vocabulary to support their ideas in writing. ..., they need clearer guidance on how to use technology responsibly during learning activities...” (Reflective Journal, Ratna, February 11, 2026)

The excerpt above demonstrated that Ratna evaluated the challenges encountered during the enactment of HOTS, especially with the writing task, such as students' limited vocabulary and inappropriate use of technology. Her reflection showed that she recognized the importance of providing linguistic scaffolding and gave clearer guidance to better support her students.

Lestari, in her reflection on students' debate performance, found that students were unable to formulate solid arguments due to a lack of vocabulary practice.

“I should support them by having some explanation about the topic. Then give them a simple exercise. After that, I gave them the questions about analyzing, from the simplest to the hardest. I got this because students lack vocabulary in order to give the proper arguments by seeing them in a debate performance.” (Reflective Journal, Lestari, February 11, 2026)

The excerpt above demonstrated that Lestari, through her reflections, addressed these challenges by providing cognitive scaffolding in stages and adapting analytical tasks from the simplest to the most complex, based on students' readiness.

Furthermore, she reflected on what she observed while walking around the classroom. From these direct observations, she identified two main issues hindering the practice of HOTS, namely, a lack of language proficiency and an overreliance on technology.

“.... I realized this when I walked around the classroom and checked each group's discussion. Some students found it difficult to complete their arguments because they lacked sufficient vocabulary to explain their ideas clearly... I observed is students' dependence on technology. Many students

tend to rely heavily on tools such as Google Translate... I realized that students sometimes use technology as the final answer rather than as a learning support. Therefore, I reminded them that Google Translate should only be used as a tool ... From these reflections, I learned that students need more vocabulary support to participate actively in HOTS activities, such as debates. I also realized that technology needs to be guided carefully so that it supports learning rather than replacing students' thinking.” (Reflective Journal, Lestari, February 11, 2026)

The excerpt above demonstrated that she realized students struggled to develop their arguments during debates due to limited vocabulary. Her reflection showed her awareness of students' tendency to use technology unwisely, such as relying on Google Translate as their primary source of answers.

In addition, Idris's reflection in his reflection journal, he evaluated the effectiveness of the methods he had implemented in the classroom to foster students' HOTS. Based on his observations of student performance during exams, Idris realized that assessment instruments were the most concrete tool for measuring how students solve problems. Furthermore, he also reflected on which methods were most successful in helping his students achieve their best results.

“My reflection, I can use assessment in HOTS to see the students solving the problem in doing the test. I use drills and drill the students to get maximum results in the job, and use better facilities and qualified teachers to persuade the students to think optimally.” (Reflective Journal, Idris, February 25, 2026)

The excerpt above demonstrated that Idris adopted a very practical strategy to address the challenges of implementing HOTS. In his reflective journal, he looked back and realized that the obstacles he faced were multifaceted, ranging from students' cognitive factors and institutional limitations to issues at the level of curriculum policy.

“My challenge is the competency of the students' thinking, lack of facilities, and the curriculum is not appropriate, and the challenges in time limit, and the students find it difficult to answer the questions, and I must master a deep learning approach.” (Reflective Journal, Idris, February 25, 2026)

The excerpt above showed that Idris clearly identified a range of issues, from students' underdeveloped critical thinking skills and a lack of supporting facilities to a curriculum perceived as irrelevant, to the limited time allotted, which makes it difficult for students to respond to higher-order questions.

Anticipatory Reflection

After the teacher identified the issue, they prepared anticipatory steps for the next lesson (reflection for action). The teacher provided language proficiency support by providing a list of relevant vocabulary and expressions before the discussion and writing activities began. In addition, the teacher gave clearer instructions regarding academic integrity, emphasizing the responsible use of cell phones. The teacher then adjusted the learning approach, shifting from a focus on curriculum-based questions to a problem-solving approach and gradually providing guidance from simple to complex tasks. For example, Ratna designed several instructional adaptations as a response to her reflections on previous lessons. She used a reflective journal to anticipate potential learning difficulties in future HOTS-oriented activities. She attempted to improve instructional preparation by designing clearer explanations and additional scaffolding to help students better understand the learning tasks.

“Based on my previous reflections, I try to anticipate potential challenges when planning new HOTS activities by preparing clearer instructions and additional scaffolding for students... I first explain the purpose of the task, clarify the instructions, and check their understanding by asking a few guiding questions. I also provide examples or key points so students can better

understand what is expected from the activity...” (Reflective Journal, Ratna, February 11, 2026)

The excerpt above demonstrated that she used a reflective journal to inform anticipatory and adaptive pedagogical decisions in subsequent lessons.

Furthermore, she also reflected on an unpredictable situation in which she was unable to find appropriate materials to support HOTS activities in the classroom. In that situation, she spontaneously adapted her teaching strategy by asking students to search for, analyze, and present their own articles from the internet to promote more independent, student-centered learning.

“Today, I realized that my teaching HOTS doesn't always go as planned. In one of my lessons, I faced a situation where I could not find a suitable article to support the activity..., I decided to shift the responsibility to the students by asking them to search for relevant articles on the internet... I also realized that depending too much on teacher-prepared materials might limit their opportunities to think critically. ..., I observed that some students became more engaged, especially when they had the freedom to choose their own sources..., although some still struggled due to limited vocabulary. From this experience, I learned that reflection helps me adapt my teaching practices, even in unexpected situations. In the future, I plan to design more activities that encourage students to search for information independently and develop their HOTS skills more effectively...” (Reflective Journal, Ratna, February 11, 2026)

The excerpt from the reflective journal above showed that she used reflection to respond to unpredictable learning situations by adaptively adjusting HOTS activities. Through this reflective process, she realized the importance of giving students space to learn more independently while remaining responsive to classroom realities that arose during the lesson.

Following that, teacher Lestari reflected on the various challenges that arose during the debate activity in her class. She made plans

to improve future lessons. This reflection prompted her to prepare more targeted vocabulary support before conducting HOTS activities and to provide clearer guidance on using technology so that students would not rely too heavily on Google Translate.

"After reflecting on the challenges in my classroom, ... students often struggled to express their arguments due to limited vocabulary, I decided to provide more vocabulary support before starting HOTS activities such as debates. For example, I prepared a list of useful expressions and key vocabulary that students could use to state opinions, agree, disagree, and support their arguments. I also planned to help students use technology more effectively. Instead of letting them rely entirely on Google Translate, I encouraged them to use it only as a tool to check unfamiliar words. Through these strategies, I hoped that students would feel more confident expressing their ideas and participate more actively in HOTS activities." (Reflective Journal, Lestari, February 11, 2026)

The excerpt above showed that she used her reflection as the foundation for planning a more adaptive and targeted learning strategy. Through her reflection process, Lestari sought to improve students' readiness so they could participate more actively and confidently in HOTS-based activities.

Subsequently, her other reflections encouraged her to plan clearer guidance regarding the understanding of instructions and questions in HOTS activities. She realized that the failure of some previous HOTS activities was not only due to the students' limited abilities but also to their lack of understanding of the intent behind the questions and instructions provided.

"Due to the previous activities that did not run well, I will guide students to comprehend the questions and instructions, so that they can get the point that I need." (Reflective Journal, Lestari, February 11, 2026)

The excerpt from her reflective journal above demonstrated that she used her reflections to design targeted instructional support for future learning.

Moreover, upon reflecting on her teaching experience after participating in the HOTS training in 2020, Lestari realized there was a gap between HOTS activities and her students' basic classroom skills. This reflection led her to understand that students could not be immediately encouraged to engage in HOTS activities if their language foundation was insufficient, such as having a limited vocabulary. This realization encouraged her to adopt a problem-oriented teaching approach with stronger, more gradual scaffolding. This finding was revealed in her reflective journal as follows:

"To be honest, when I look back on the period following the HOTS training in 2020, there was one moment that really 'shattered' my approach to teaching. Back then, I thought teaching HOTS was simply about asking questions, for example, telling students to identify the main idea without considering whether that fell under LOTS or HOTS. But when I saw the conditions in the classroom firsthand, I realized that I could not expect students to engage in higher-order thinking if their basic vocabulary was still so limited...Eventually, I overhauled my classroom teaching methods, shifting to a problem-solving approach with strong scaffolding. I searched for resources online myself, adapted government modules to make them more child-friendly, and always provided them with foundational material (such as parts of speech) before asking them to analyze texts. The results were very reassuring, I became much more confident in the classroom, and the children were far more active because they felt they were being guided step by step from the ground up..." (Reflective Journal, Lestari, February 11, 2026)

This excerpt above showed that reflection made her realize that it was important to adapt HOTS learning in English to the students' primary needs, so that the learning process could be more effective and supportive.

Furthermore, Idris also showed the use of reflection as a foundation for improving HOTS learning strategies in future sessions.

He realized that it was necessary to change strategies, prepare new lesson plans, and use more appropriate teaching techniques to help students understand the material more deeply. This finding showed how teacher Idris used his past experiences as material for reflection to improve the quality of HOTS learning in the classroom.

"I want to try to overcome in the next lesson, I must change with the new strategy to finish it. Good facilities and qualifications to get it, use the best techniques for questions, and answer the exercise. To prepare, to make a new design to get qualified in teaching." (Reflective Journal, Idris, February 25, 2026)

The excerpt above demonstrated that he used his reflection to plan more effective strategies and instructional designs for future lessons. He tried to improve the quality of HOTS-oriented instruction by adapting teaching techniques and approaches based on his previous experiences.

In addition, he reflected on the changes he had made to his teaching approach based on his previous teaching experience. He realized that the teaching strategies he had used in the past needed to be adjusted to make the enactment of HOTS-based ELT instruction more effective and help students gain a deeper understanding of the material.

"In my mind, I use reflection in the past to increase HOTS for now, for example, in the past I taught the students by using the strategy in the past, but now my students and I solve the problems together and focus on mastering the lesson and improving it in deep learning." (Reflective Journal, Idris, February 25, 2026)

Furthermore, in his reflection, Idris showed that the application of HOTS in English language learning needs to be directed towards future academic needs and goals. He realized that HOTS-based instruction in structure and grammar could serve as preparation for students facing admissions to public universities and government-run schools. This reflection indicates that he plans to implement HOTS instruction that is more relevant to students' aspirations.

"Yes, my reflection is for HOTS, especially in teaching structure and grammar to prepare the government college (PTN/Sekolah Kedinasan) because this is one of the students' desires for the future and of course to master in another English lesson." (Reflective Journal, Idris, February 25, 2026)

The reflection excerpt above showed that Idris used his reflection to adapt the implementation of HOTS to students' academic needs and future goals.

Spontaneous Reflection

Teachers used spontaneous reflection to resolve situations when their plans did not go as intended (reflection-in-action). For example, when a teacher could not find a suitable resource for the lesson, they immediately adjusted their strategy by giving students the freedom and responsibility to search for, analyze, and present their own online resources. Then, when facing institutional obstacles such as the absence of a language lab, a broken speaker, or a projector and laptop that are not working properly, teachers look for alternative solutions, such as sharing audio files directly to students' phones to keep the lesson running smoothly. These findings indicate the presence of spontaneous reflection in HOTS teaching practices.

For example, teacher Ratna, when faced with technical obstacles during the learning process. When the projector and laptop were not working properly, she immediately sought alternative solutions, involving the students to help resolve the issue, so the HOTS activities could continue.

"Some trouble faced in my teaching, the machine of the in-focus and the laptop doesn't work well. So, I ask my students to assist with how to make it proper." (Reflective Journal, Ratna, February 11, 2026)

The excerpt above showed she used spontaneous reflection to address the challenges that arose during the learning process. She ensured that the HOTS learning

process could continue despite the limited classroom facilities.

In addition to the challenges in the classroom, Ratna also directly monitored student activities during the lesson by moving around to each group; she closely monitored the progress of the students' discussions and assessed their understanding of the assigned HOTS tasks, such as topic sentences and group activities

"By turning around to their group. I will check their activities. Check the topic sentence, etc." (Reflective Journal, Ratna, February 11, 2026)

The excerpt above showed that Ratna used spontaneous reflection to respond to challenges that arose during the learning process. She ensured that the higher-order thinking skills (HOTS) learning process could continue despite the limited classroom facilities.

Ratna not merely encountered technical difficulties during the learning process, but Lestari did as well. The speaker being used was not functioning properly. In her reflection, she noted that she immediately adjusted the learning media by asking students to switch from the speaker to the projector so the learning activity could continue.

"When I hold my teaching class, I got my speaker doesn't work well, so I asked my students to change the speaker by using the projector." (Reflective Journal, Lestari, February 11, 2026)

The excerpt from her reflection journal above showed that Lestari used reflection spontaneously to respond to the facility-related challenges that arose during the lesson.

In addition, she showed spontaneous reflection through her direct involvement in monitoring student activities during the HOTS learning process. By walking around the classroom, she observed students' understanding of the topic and provided additional explanations when students had difficulty understanding the HOTS activities.

"I will get my students engage to my class is by going around. I will have them to

understand what the topic about. I will describe the case then they give the respond by giving their arguments, when they did not get the HOTS activities they will have the point." (Reflective Journal, Lestari, February 11, 2026)

The excerpt from the reflective journal above showed Lestari making direct observations and providing additional explanations. She tried to help students better understand the demands of the HOTS activity as the lesson progressed.

Furthermore, Idris also showed spontaneous reflection when HOTS activities in the classroom did not go as planned. In his reflection, he assessed the difficulties students encountered during the HOTS learning process and worked to help them overcome them, enabling their thinking skills to continue to develop.

"In doing activities during the HOTS lesson, it is not working as planned, which can affect critical thinking in the students. Therefore, I can improve the students' thinking and find the difficult and solve it, in order to be able to increase their thinking." (Reflective Journal, Idris, February 25, 2026)

The excerpt from his reflective journal above showed that by making adjustments, he tried to help students who were struggling so that the HOTS learning process could continue.

In addition, Idris showed his spontaneous reflection by motivating and guiding students throughout the HOTS activities. When students struggled to complete HOTS tasks, he directly helped them find solutions by collaborating with them during the learning process. This finding was revealed in his reflective journal as follows:

"As a teacher, I give my students motivation and how to solve the problems to increase HOTS through working together to do HOTS assessment correctly and effort to find the solution in the learning process activity." (Reflective Journal, Idris, February 25, 2026)

The excerpt from Idris's reflective journal above showed that providing students with immediate support and guidance during HOTS activities is important.

Collectively, this reflection showed that teachers engage in evaluative, anticipatory, and spontaneous reflection. This reflection serves to address challenges encountered while conducting HOTS-oriented English language instruction in the classroom. Through evaluative reflection, teachers are able to recognize students' difficulties, assess the effectiveness of the strategies used, and identify challenges such as reliance on technology and limited facilities. Anticipatory reflection encourages teachers to prepare adaptive strategies before instruction, such as providing vocabulary, clear instructions, and relevant learning content tailored to students' needs. Meanwhile, spontaneous reflection occurs when teachers respond directly in the classroom, such as by adjusting methods, changing teaching materials, providing motivation, and finding quick solutions to ensure that instruction continues to run smoothly.

DISCUSSION

These findings align with [16], which argues that self-reflection in HOTS enactment helps English teachers identify weaknesses and improve their teaching strategies. This finding is further supported by [23] that teachers' professionalism extends beyond basic competencies to pedagogical, professional, social, and personal domains, including reflective practice, digital literacy, and adaptive thinking. These findings indicate that the English teachers are actively engaging in reflection after learning activities (Reflection-on-action) to evaluate the challenges that arose during the enactment of HOTS. This reflection encompassed the students' difficulties, the effectiveness of learning strategies, and the classroom limitations. According to [12], reflection-on-action enables teachers to revisit their teaching experiences, so they can understand what works and what does not in the learning process. For instance, Ratna realized that students were struggling with the HOTS writing assignment due to their limited vocabulary and improper use of

technology. Through reflection, she then developed a more targeted scaffolding strategy. This finding indicates that reflection did not merely stop at evaluation but also extended to agency through pedagogical decision-making by providing language scaffolding. Providing language scaffolding in a structured and systematic manner can be easily understood by students [24]. According to [25], giving scaffolding during the writing process significantly improved writing abilities for EFL students. Lestari also demonstrated reflection to evaluate students' HOTS in the debate activity. She realized that students' limited vocabularies hindered them in giving argumentation, so she made gradual adjustments. Her adjustment in terms of students' English proficiency showed that she can achieve her agency. This finding is further supported by [26], who argues that by adjusting teachers' language use to the students' English competence, students from different language backgrounds can invest their linguistic skills in classroom activities. Meanwhile, Idris used reflection to evaluate the effectiveness of HOTS assessment and realized that drilling could help students achieve better results. Even though it was procedural. This reflection indicates a form of practical agency that is a teacher's ability to adapt strategies based on actual classroom outcomes. According to [22], this finding suggests that reflection-on-action became a space for teachers to connect the past experiences with current pedagogical enhancement.

This finding demonstrates that teachers not only reflected on their past experience, but also used it to design future pedagogical actions. According to [22] Farrell (2015), reflection-for-action is a proactive form of reflection in which teachers plan learning strategies based on prior experiences to make their teaching practices more effective. In this study, Ratna designed the provision of a vocabulary list prior to the HOTS writing activity and provided clearer instructions regarding the use of technology. This finding indicates that reflection fosters the

development of future-oriented agency. Teachers' ability to anticipate students' difficulties and design pedagogical interventions before instruction begins. Lestari also demonstrated anticipatory reflection by providing gradual scaffolding and clarifying HOTS instructions. Meanwhile, Idris designed a plan to increase the use of English to over 70% in the classroom as a form of long-term students' competency development in English learning. These findings align with [27], who argues that the dynamic interaction between pupils and educators is instrumental in fostering student engagement and critical thinking. Reflective teaching practice goes beyond conventional methodologies, aligning the pedagogical strategies with the evolving learning needs that allow educators to adopt reflective teaching in an effective way. The teachers utilized reflection to anticipate difficulties in learning and proactively adapt their instruction, suggesting that reflective practice serves as an important mechanism for creating a conducive environment in enacting HOTS. Thus, reflection-for-action served as a bridge between past experiences and future planning in HOTS practice. This finding is further supported by [28], who argue that reflection for action is an individual, collaborative, and collective practice that is influenced by the teachers' beliefs and autonomy. These findings showed that reflection holds an important role in shaping and strengthening teachers' professional agency in the enactment of HOTS. Reflection allowed teachers to connect their past experiences, present challenges, and future goals. According to [29], reflective practice is a means to assist teachers in their professional lives. Teachers must be aware that the process focuses not only on fixing problems in classroom teaching, but it also pays close attention to their inner lives. Thus, reflection served as a mechanism that dynamically drove teachers' agency. For instance, Ratna argued that reflection made her more proactive in helping students to overcome their difficulties. This

demonstrated agency in the form of direct action and pedagogical awareness. Lestari also noted that reflection enabled her to identify the solutions from various sources, such as experience, environment, and colleagues, though she also acknowledged the limitations of her knowledge as an area for professional development. Idris emphasized the importance of reflection for enhancing self-competence before teaching. It demonstrated a form of self-directed professional agency. This finding indicates that reflection helps them to be more proactive in helping students. This finding is further supported by [30], who states that reflective teaching not only enhances individual teaching effectiveness but also contributes to the continuous improvement within educational institutions, and it has benefits for both teachers and students. This finding suggests that reflection not only leads to changes in teaching practice but also shapes teachers' identity and professional growth, where teachers become more self-aware, adaptive, and reflective regarding their role in the enactment of HOTS in English learning.

Overall, the findings indicate that teachers' reflection in the enactment of HOTS is a multidimensional process that encompasses evaluation, planning, and spontaneous responses in the classroom. Based on [12]'s framework, teachers' reflection occurs in the three main forms, namely, reflection on-action, for-action, and in-action, that are mutually interdependent. Furthermore, reflection also served as a driver of teacher professional agency, as through reflection, teachers are able to connect past experiences, current conditions, and future goals in HOTS practice. Thus, reflection is not only a pedagogical activity but also a space for the construction of teachers' professional agency in enacting the adaptive and contextual HOTS in English learning.

CONCLUSION

This study found that the enactment of Higher-Order Thinking Skills (HOTS) in English language learning at a senior high

school in Tangerang Regency, Banten Province, faces challenges related to students, context, and pedagogy aspects, including low language skills and motivation, limited facilities, and large class sizes. Teachers are required to adjust teaching practices, and reflection is an important mechanism through reflection-on-action and reflection-in-action. This study found that reflection is not only an evaluation but also a mechanism for addressing challenges and strengthening agency in adaptive decision-making. Implicitly, reflection needs to be seen as an integral part of teacher professional development. Teachers are encouraged to build sustainable reflective habits to identify student needs, evaluate strategies, and adjust learning. School and policy support, in the form of training, professional communities, and adequate facilities, is needed. This study has limitations because it involves only three English teachers from one high school and uses a case study design, so the research findings cannot be generalized to a broader context. Therefore, further research is recommended to involve participants from different levels and school contexts, as well as explore the relationship between reflection and critical thinking skills, as well as student learning outcomes, as this will provide a more comprehensive picture of teachers' reflective practices in diverse situations, so that the results of the research are not only relevant to one particular context but can be applied more widely. In practice, teachers need to make reflection a systematic habit because it helps them continue to adapt strategies to students' needs and dynamic classroom conditions, while schools and governments strengthen support for the optimal implementation of HOTS.

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