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Investigating EFL Teachers' Perceptions on the Implementation of Higher Order Thinking Skills in Semi-Urban Area

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ABSTRACT

The implementation of Higher-Order Thinking Skills (HOTS) within Indonesia's *Merdeka* Curriculum has brought increasing attention to the development of critical and creative thinking across subjects. However, limited research has examined how English teachers, particularly in rural or semi-urban areas, perceive and apply HOTS-based assessment. This qualitative study addresses that gap by exploring the perceptions, confidence levels, and challenges experienced by junior secondary school English teachers when implementing HOTS. A two-day focus group discussion involving seven purposively selected teachers, followed by an open-ended questionnaire, served as the main data collection methods. Thematic analysis revealed that initial misconceptions linked HOTS to difficulty and content complexity. However, through collaborative discussions, participants gradually recognized HOTS as a pedagogical tool that fosters analytical, evaluative, and creative thinking in language learning. The study also found that teachers' confidence in designing HOTS-based assessments increased after the intervention, although they continued to face contextual barriers such as insufficient resources and limited student readiness. These findings indicate the need for continuous, context-sensitive professional development programs that not only enhance teacher understanding but also provide practical support. The study contributes to broader discussions on equitable curriculum reform by emphasizing the importance of empowering teachers in less advantaged regions. Its implications call for sustained investment in training strategies that ensure the effective integration of HOTS in English language education across diverse educational environments.

1. Introduction

In today's rapidly evolving world, education is no longer solely about knowledge acquisition but also about preparing learners to solve real-world problems through critical and creative thinking. The development of Higher-Order Thinking Skills (HOTS) is considered essential in responding to global demands for innovation, adaptability, and informed decision-making (Afriyana et al., 2022; Ghanizadeh et al., 2020). As the complexity of modern life increases, so does the urgency to equip students with competencies such as critical thinking, problem-solving, and effective communication. This urgency has prompted a pedagogical shift from traditional teacher-centered practices towards more student-centered approaches that promote inquiry, reflection, and active learning (Santos & Mendez, 2024).

This transformation is particularly evident in Indonesia, where educational reforms have been introduced to align national education goals with 21st-century learning principles. The Ministry of Education and Culture has positioned HOTS as a central pillar of the curriculum, signaling a national commitment to nurturing learners who can think independently and creatively (Hunaepi & Suharta, 2024). The introduction of the 2013 Curriculum, followed by the more flexible Merdeka Curriculum, reflects a significant effort to foster holistic learning through essential competencies (Agusta, 2020; Bambang, 2022; Indrawati, 2024). Nonetheless, the extent to which these curricular visions are realized in practice depends heavily on how well educators understand and implement HOTS across subjects, including English.

The Merdeka Curriculum, launched in 2020, places a strong emphasis on integrating HOTS through flexible, context-based instruction. Indrawati (2024) explained that this curriculum aims to cultivate students' life skills, including creativity, critical thinking, and problem-solving. Unlike previous models, the Merdeka Curriculum promotes student autonomy and encourages learners to apply their

knowledge in authentic contexts. Ramadhan (2024) added that this approach fosters holistic growth by supporting collaborative learning, reflection, and experiential engagement. Furthermore, Gozali et al. (2021) emphasized that HOTS should not be limited to STEM subjects. Language education, particularly English, also plays a vital role in fostering analytical and evaluative thinking, especially when students engage in tasks requiring interpretation, argumentation, and problem-solving. Despite this, many teachers continue to rely on traditional assessment strategies that prioritize memorization and factual recall over cognitive depth (Mitana et al., 2021; Zaim & Arsyad, 2020).

A growing body of research has identified several factors that influence the implementation of HOTS in the classroom. Teacher readiness, including pedagogical knowledge, self-efficacy, and access to professional development, plays a critical role in shaping how HOTS is interpreted and applied. Teachers who engage in professional development opportunities focused on HOTS report increased preparedness and improved instructional strategies (Retnawati et al., 2018; Tang, 2023). As Seman et al. (2017) noted, school support structures that promote reflective practices, peer collaboration, and innovative methodologies contribute to more effective HOTS integration.

However, adequate instructional materials also remain crucial. Chang et al. (2020) and Lissa et al. (2024) stressed the need for textbooks and learning resources that support problem-solving and encourage students to apply knowledge creatively. Without these, HOTS risks being misunderstood or poorly implemented. Unfortunately, as Gosnell (2023) and Nuraini (2019) revealed, many teachers in semi-urban and rural schools continue to face systemic barriers such as limited training, insufficient resources, and high-stakes assessment demands. These challenges often result in a preference for surface-level instruction rather than fostering deeper thinking. Khoyaled (2023) and Tyas et al. (2019) argued that these barriers can only be addressed through sustained investment in capacity building and targeted policy support.

Although teacher training and policy support are crucial, several gaps remain. Most existing studies on HOTS focus on STEM subjects, with limited attention to language education contexts. Even fewer studies explore HOTS from the perspective of English teachers in rural or semi-urban areas, where constraints in infrastructure and professional development are often more acute (Lissa et al., 2024; Ramadhan, 2024). Furthermore, while teachers may gain confidence through training, it remains unclear how this translates into classroom practice, particularly in designing effective assessments. Moses and Mohamad (2019) found that students in traditionally rote-based learning environments struggle with HOTS-oriented tasks. Similarly, Gupta and Mishra (2021) identified a persistent knowledge gap among teachers, which may hinder effective implementation of HOTS despite curriculum mandates. These studies underscore a pressing need to explore how English teachers interpret, experience, and respond to the demand for HOTS integration.

This study responds to these gaps by examining the perceptions of English teachers in junior secondary schools regarding HOTS, especially in a semi-urban area of Indonesia. Unlike previous research that has focused on well-resourced settings or STEM domains, this study explores the perspectives of teachers operating in more constrained environments. The study also investigates how professional discussions and collaborative engagement influence teacher confidence in designing HOTS-based assessments. By doing so, it contributes new insights into how professional learning and contextual realities intersect to shape classroom practice. The novelty of this study lies in its qualitative exploration of HOTS in English teaching, supported by focus group discussion and reflective inquiry.

The significance of this research lies in its potential to inform more equitable and context-sensitive strategies for integrating HOTS in English language education. It addresses the need for continuous teacher support and practical training, especially in areas where resources are limited. The study aims to answer three main questions: How do teachers perceive HOTS in the context of English language teaching? To what extent are they confident in designing HOTS-based assessments? What challenges do they face in implementing these practices? By addressing these questions, the study highlights the real-world complexities of curriculum implementation and the importance of responsive teacher development.

This study emphasizes the importance of integrating critical and creative thinking into English teaching through purposeful assessment and instruction. Embedding higher-order thinking fosters deeper engagement with texts, dialogue, and real-world issues. The findings advocate for ongoing, context-aware professional development and encourage a shift from policy mandates to teacher-led, reflective practices in English education in Indonesia.

2. Literature Review

2.1 Defining Higher Order Thinking Skills in the Educational Context

Higher-Order Thinking Skills (HOTS), as conceptualized in Bloom's Taxonomy (1956) and later revised by Anderson and Krathwohl (2001), involve the advanced cognitive domains of analyzing, evaluating, and creating. These skills involve analyzing, evaluating, and creating, requiring learners to think critically, solve problems, and make independent decisions beyond basic recall. (Retnawati et al., 2018).

In the context of English language education, HOTS play a critical role in deepening students' engagement with language, enabling them to interpret meaning, form arguments, and apply linguistic knowledge creatively and critically (Koh et al., 2017). However, the shift toward implementing HOTS in the classroom remains difficult for many educators. This is particularly true in educational settings where traditional practices such as rote memorization and teacher-centered approaches have long been embedded in teaching and assessment (Gupta & Mishra, 2021). Teachers often face structural and pedagogical challenges when moving away from familiar practices to methods that actively promote critical and creative thinking.

2.2 Teachers' Perceptions of HOTS in English Language Teaching

Teachers' conceptual understanding of HOTS is a crucial factor in determining how successfully these skills are implemented in classroom practice. Nevertheless, studies have consistently shown that many teachers hold misconceptions about HOTS, often associating it with assigning more difficult tasks rather than designing activities that encourage advanced cognitive engagement (Zohar & Dori, 2003). In Indonesia, Ekalestari et al. (2020) found that many teachers understood HOTS merely as complex multiple-choice questions, rather than as open-ended tasks that require learners to reason critically and apply their knowledge creatively. Similarly, Indriyana and Kuswandono (2019) emphasized that such misconceptions reflect a deeper issue tied to the lack of comprehensive professional development that prepares teachers to deliver HOTS-based instruction in English language contexts. Teachers' confidence also plays a role in how effectively they apply HOTS principles. Drawing on Bandura's (1994) self-efficacy theory, educators with higher confidence in their abilities are more likely to implement innovative pedagogical approaches.

However, Indonesian teachers often report low confidence in designing HOTS-oriented assessments, preferring traditional techniques that rely heavily on recall (Abkary & Purnawarman, 2020; Harendita, 2020). This limited self-efficacy is frequently linked to inadequate training, insufficient instructional materials, and a lack of institutional support (Gozali et al., 2021), making it harder for teachers to implement HOTS meaningfully in language education.

2.3 Challenges in Implementing and Integrating Curriculum

The Merdeka Curriculum, introduced as part of Indonesia's education reform, emphasizes student-centered learning, digital literacy, and holistic skill development, all of which are compatible with HOTS-based instruction (Afriyana et al., 2022; Ningsih & Sari, 2024). Mustapa et al. (2024) argued that the curriculum's focus on flexible learning experiences and technology integration allows students to develop critical and reflective thinking skills. However, the successful implementation of this curriculum, particularly its HOTS component, remains highly dependent on teachers' capacity to navigate real-world classroom constraints. For example, many teachers continue to struggle with resource limitations, lack of digital access, and insufficient time to prepare meaningful HOTS-oriented tasks (Ramadhan, 2024).

These difficulties are especially pronounced in semi-urban and rural schools, where disparities in infrastructure further complicate efforts to shift from teacher-centered instruction to student-led inquiry. As Moses and Mohamad (2019) pointed out, students raised in environments dominated by rote learning often face difficulties when required to perform HOTS tasks, which in turn demands that teachers invest more time and energy into scaffolding. Furthermore, national standardized assessments in Indonesia still emphasize factual recall, discouraging educators from prioritizing higher-order thinking in everyday instruction (Junaidi et al., 2024). Teachers must therefore reconcile policy expectations with practical classroom realities, a tension that continues to affect how HOTS is integrated into daily instruction (Hunaepi & Suharta, 2024).

2.4 Addressing the Gaps: Research Rationale

Despite increasing awareness of HOTS, there remains a critical gap in understanding how English teachers in semi-urban or rural contexts in Indonesia perceive and implement these skills. Much of the existing literature focuses on STEM education or urban schools, leaving the realities of language educators in under-resourced areas underexplored. This study specifically addresses that gap by investigating English teachers' perceptions, confidence, and challenges in designing HOTS-based assessments within a semi-urban junior high school context. As implementation issues differ significantly across geographical and socio-economic settings, the findings aim to provide grounded insights that reflect the lived experiences of teachers operating under constraints. In doing so, the study contributes to a more nuanced understanding of how HOTS can be adapted and sustained in varied educational environments.

The implications of this study are twofold. First, the research supports the need for targeted, ongoing professional development that addresses the specific needs of English teachers in resource-limited settings. Rather than offering one-size-fits-all solutions, training programs must be contextualized and practice-oriented to help teachers design effective HOTS-based learning experiences. Second, the study urges curriculum designers and policymakers to recognize the structural challenges faced by educators in implementing national reforms. Policies that prioritize equity and practicality can help bridge the gap between curricular goals and instructional realities.

Moreover, the insights gained from the Indonesian context hold broader significance for other countries grappling with comparable educational disparities, thereby enriching the global discourse on strategies to promote a more inclusive and effective integration of higher-order thinking skills (HOTS) in education systems.

To guide this inquiry, three research questions were formulated:

1) How do teachers at junior high schools perceive Higher-Order Thinking Skills (HOTS) in the context of English language teaching?
2) To what extent are English language teachers confident in designing and implementing HOTS-based assessments?
3) What challenges do teachers face when implementing HOTS in English language teaching?

3. Research Method

3.1 Research Design

Emphasizing the socially created character of knowledge, this study uses a qualitative research design grounded on a constructivist paradigm (Creswell & Poth, 2018). A qualitative method lets one investigate instructors' opinions and experiences with Higher-Order Thinking Skills (HOTS) in English language instruction in great detail. Data collecting techniques chosen to provide complex insights on instructors' views, confidence levels, and difficulties using HOTS into their assessment strategies were focus group discussions (FGDs) and open-ended questionnaires. These techniques were selected since they enable participants to explore their common knowledge and let them to reflect personally on their experiences.

3.2 Setting and Sample of Research

Purposive sampling was used in this study to guarantee participants were experienced English teachers actively involved in HOTS curriculum development and pedagogical discussions. Selected based on their teaching experience (varying from 6 to 21 years) and their involvement in HOTS curriculum changes were seven junior secondary school English instructors from a semi-urban Kabupaten in West Java, Indonesia.

Comprising three female and four male teachers, all members of the English Teacher Working Group (*Musyawarah Guru Mata Pelajaran Bahasa Inggris / MGMP Bahasa Inggris*), Focusing on a specific Kabupaten was decided to offer a rich, contextualised knowledge of HOTS application inside a localised learning environment. Although the sample size is modest, it conforms with ideas of qualitative research that give depth of insight top priority over wide generalisability (Merriam & Tisdell, 2015).

3.3 Research Instrument

3.3.1 Focus Group Discussion (FGD)

Kamberelis and Dimitriadis (2020) stated that focus group discussion (FGD) provides:

> Opportunities to see whether and how self, other, and context seem indeed to be co-emergent phenomena, getting to the very heart of the social process social theorist argue constitute reality" (p.481).

FGD was used in this study to discuss the teachers' perceptions and implementation of the HOTS assessment in English classrooms. The FGD was organised as a roundtable discussion involving all seven teachers and was led by the researcher. The FGD which lasted two days mainly focused on discussing how to design the HOTS test-items for English subjects at the junior high school.

3.3.2 Open-Ended Questionnaire

To support data from the focus group discussion, an open-ended questionnaire was distributed to encourage the participants to reflect on their initial understanding of HOTS, their level of confidence in designing and implementing HOTS-based tasks, and any specific challenges they faced in their teaching practice. Developed based on current research on HOTS and teacher cognition (Anderson & Krathwohl, 2001; Retnawati et al., 2018), the open-ended questionnaire was distributed via Google Forms, ensuring ease of access for participants. The participating teachers from the FGD were asked to complete the questionnaire, which covered their understanding of HOTS before and after the FGD, their experiences in implementing HOTS in their teaching practices, and the challenges they encountered. This approach allowed for a more comprehensive exploration of changes in teachers' perceptions and confidence levels regarding HOTS-based assessments.

3.4 Data Analysis

Data from the focus group discussion and open-ended questionnaire were subject to a thematic analysis (TA). TA is "a method for identifying, analyzing, and interpreting patterns of meaning ('themes') within qualitative data (Clarke & Braun, 2017: 297). It set out to focus on three key areas of investigation related to the three research questions, namely: (1) general understanding of HOTS, (2) confidence in designing and implementing HOTS-based assessments, and (3) challenges in the practical application of HOTS. The thematic analysis followed Clarke and Braun's (2017) six-phase approach: familiarising with data, coding, identifying and refining themes, and reporting findings. This structured approach allowed for a thorough analysis of patterns and key insights from both FGD and questionnaire data.

3.5 Limitation of Study

Although this study offers insightful analysis of instructors' opinions of HOTS, some limits should be noted. The limited generalisability of results outside the particular setting investigated is limited by the small sample size and single-location emphasis. Furthermore, as FGDs depend on group dynamics, some participants might have been swayed by dominating voices throughout the conversation. Future studies should increase the sample to include teachers from several areas and use other data sources, such classroom observations, to triangulate results.

4. Results

The study investigated understanding, confidence, and challenges experienced by the participating English language teachers in a suburban area regarding the implementation of Higher-Order Thinking Skills (HOTS) in their classrooms. Initially, the teachers exhibited varying and often limited perceptions of HOTS, frequently associating it with STEM rather than cognitive skill development. However, through focus group discussions (FGDs), their understanding evolved to recognize HOTS as a tool for fostering critical and creative thinking. Despite this progress, teachers reported ongoing challenges, including student readiness, limited resources, and the need for more structured professional development. The findings highlighted the importance of targeted training and collaborative reflection to enhance teachers' confidence and ability to integrate HOTS into their teaching practices effectively. The following are three themes taken from the data analysis:

4.1 General Understanding of HOTS

4.1.1 Teachers' Perceptions on HOTS before the FGD

The findings indicated that English language teachers in the participating *Kabupaten* had varying and frequently restricted understandings of what Higher-Order Thinking Skills (HOTS) are. Many teachers connected HOTS with difficult test questions or complex content that students often struggle to answer. For example, one teacher stated, "*I thought that implementing HOTS in the context of English language teaching would be challenging for students with lower academic abilities*," showing a prevalent assumption that HOTS focuses solely on task difficulty rather than cognitive skills development. Another teacher reflected, "*HOTS refers to challenging teaching material designed to develop the highest levels of student competence*," indicating that their comprehension was limited to the upper levels of Bloom's (1956) taxonomy without regard for how these abilities may be applied to varied classroom scenarios. Another teacher stated that they believed HOTS only related to specific courses, adding, "*I thought HOTS could only be implemented on certain subjects like mathematics or science.*"

This initial understanding of HOTS is consistent with previous research, which has shown similar errors among teachers. Yen and Halili (2015) found that many teachers, particularly those teaching non-STEM courses, struggle to perceive how HOTS may be effectively integrated into their disciplines, typically associating HOTS with increased difficulty rather than enhanced cognitive processes. Similarly, Ekalestari et al. (2020) reported that teachers in Indonesia were frequently confused between complex assignments with activities that encourage higher-order cognitive processes, highlighting the need for clearer guidance in professional development programs.

4.1.2 Teachers' Perceptions of HOTS after the FGD

Teachers' perceptions of HOTS shifted significantly following the focus group discussions (FGDs). Teachers began to consider HOTS as a tool for encouraging deeper, critical thinking in students rather than merely asking difficult questions. Another teacher thought, "*After the FGD, I understand that HOTS is not about difficulty, but how students can think critically and creatively*". This demonstrates a shift towards recognising the importance of HOTS in promoting student involvement and critical thinking. Such changes are consistent with findings from Donoho (2017), which suggest that professional development can alter teachers' teaching approaches and widen their understanding of cognitive processes.

The findings of the study show that the English language teachers in one *Kabupaten* had various levels of awareness of Higher-Order Thinking Skills (HOTS). Most teachers had a basic theoretical understanding of HOTS, linking it to tasks that required students to think beyond simple memory or comprehension. For example, one teacher stated that HOTS "*requires students to think more deeply, not only to recall or memorise but also to analyse and evaluate.*" This demonstrates that the teachers were aware of the cognitive demands involved with HOTS, which are consistent with Bloom's taxonomy (Anderson & Krathwohl, 2001), emphasising higher levels of thinking such as analysis, assessment, and invention.

However, a closer look at the teachers' perceptions found that, while they grasped the concept of HOTS, some misconstrued it as simply making work more difficult for students. One teacher said, "*I thought that any test item that students found difficult qualified as HOTS,*" highlighting a prevalent misperception that associates HOTS with difficult questions rather than assignments that stimulate higher-level thinking. This finding is consistent with Zohar and Dori's (2003) research, which discovered that even experienced teachers frequently misinterpret HOTS as simply increasing the complexity or difficulty of activities rather than fostering deeper cognitive involvement.

Teachers' comprehension of HOTS changed significantly following the FGD. Teachers came to recognise, via collaborative conversations and guided

reflection, that HOTS entails engaging students in processes that require critical thinking and problem-solving, rather than simply answering progressively difficult questions. A participating teacher commented: "*The FGD helped me understand that HOTS is about the thinking process, not just the difficulty of test items*". This shows that professional development opportunities, such as focus group discussions, are critical in assisting teachers to deepen their conceptual knowledge of HOTS and move from abstract principles to more practical implementations (Koh et al., 2017).

4.2 Growing Confidence in Implementing HOTS

The study also suggested that teachers' confidence in implementing HOTS was initially low, particularly when it came to designing HOTS-based test items. Some teachers shared that they lacked the necessary skills to create assessments that adequately challenged students' higher-order thinking. For example, one teacher noted, "*At first, I lacked confidence, but after the FGD, I felt much more assured*." This lack of confidence is consistent with prior research by Zohar and Dori (2003), which emphasises the value of organised training in developing teacher efficacy, particularly in innovative instructional modalities.

The collaborative nature of the discussions, where teachers could share their insights and reflect on each other's teaching practices, contributed to this boost in self-efficacy. One teacher mentioned, "*I'm really confident after joining the FGD," while another said, "I now know how to design HOTS test items based on the students' capability*". The FGDs allowed teachers to discuss the specific steps involved in developing HOTS items and reflect on their own practices. This improvement in confidence aligns with research by Donohoo (2017), who emphasized that professional learning communities and collaborative reflection are key factors in improving teacher confidence and instructional effectiveness.

The issue of teacher confidence is inevitably linked to self-efficacy, which Bandura (1997: 2) defines as "*beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations*". Teachers with stronger self-efficacy are more inclined to try out new teaching tactics and take risks when introducing innovative practices like HOTS. According to Koh et al. (2017), developing teacher confidence is critical for successful HOTS implementation because teachers need to feel empowered to design lessons and evaluations that challenge students' cognitive capacities.

The focus group discussions not only provided theoretical knowledge but also practical examples of how HOTS may be implemented into English language education, allowing teachers to create more successful and student-friendly evaluations. As some teachers stated, being able to discuss real-world difficulties with their peers was critical in putting their academic knowledge into practice.

During the FGD, teachers were able to share their experiences and concerns about the implementation of HOT. This collaborative setting allowed teachers to reflect on their methods while also learning from one another. As the conversations progressed, teachers expressed increased confidence in their abilities to develop HOTS-based assessments. This increase in confidence is consistent with the findings of Lieberman and Miller (2001), who claim that professional communities of practice can greatly improve teachers' feeling of competence by allowing for collaborative reflection and problem-solving.

The response of open-ended questionnaire in this study showed that the FGD had boosted teachers' confidence in their capacity to develop HOTS-based challenges while simultaneously providing them with practical tools for implementing these tasks in their classrooms. The participating teachers talked about employing open-ended questions, problem-based learning scenarios, and projects that require students to synthesise information from many sources. These strategies are consistent with Brookhart's (2010) recommendations for encouraging higher-order thinking, which include creating projects that require students to conclude, apply principles to novel contexts, and assess the validity of the material.

This gain in confidence is significant because it demonstrates the importance of targeted professional development in improving teachers' ability to execute HOTS. Harendita (2020) argues that many teachers lack trust in HOTS due to inadequate training in how to design and assess these skills. As a result, the focus group discussion in this study provided an important platform for teachers to obtain the knowledge and skills they required to feel more competent in incorporating HOTS into their teaching methods.

4.3 Challenges in Implementing HOTS

4.3.1 Students' Readiness

Despite their increased understanding and confidence, teachers still found it challenging when applying HOTS in their classrooms. A major difficulty highlighted was student preparation, particularly in terms of cognitive ability. One teacher explained that "*the students are still not accustomed to challenging HOTS questions, especially at the C6 level, which involves evaluation and creation*," referring to the difficulties students encounter when they have to do tasks that require them to analyse, evaluate, and create rather than simply recalling information. This finding echoes a study done by Zohar and Dori (2003) which found that students, particularly those from rural or underserved areas, frequently struggle with the cognitive demands of HOTS.

Furthermore, while teachers felt more confident following the FGDs, they acknowledged that their students would require time and practice to adapt to HOTS-based assessment. One teacher shared his concern, "*Students are more creative in providing answers, but they still struggle at first because they are not accustomed to the HOTS mindset*". This emphasizes the need to gradually incorporate HOTS into the curriculum and provide ongoing assistance to teachers and students. Safarati et al. (2024: 98) defined creative thinking as "*imagination and the capacity for discovering innovative and critical ideas*".

The findings also indicated that the participating teachers perceived that student readiness, and the availability of resources were still low. One of the most commonly cited challenges was that students were unfamiliar with the kind of thinking required by HOTS. One teacher remarked, "*I must be well prepared for the many questions asked by the students who may not be familiar with HOTS-based items*," indicating that students often struggled to engage with tasks that required higher-order thinking. This finding aligns with Moses and Mohamad's (2019) and Richmond's (2007) research, which found that students in contexts where rote learning has traditionally dominated the education system often find HOTS tasks difficult and unfamiliar.

Student readiness is important to the successful implementation of HOTS. Students who have not been exposed to critical thinking and problem-solving tasks consistently may struggle to engage with them effectively (Lai, 2011). Teachers in this study were concerned that many of their students lacked the basic abilities required to perform well on HOTS-based assignments. One teacher noted, "*My students are still focused on memorization, so it's difficult to encourage them to think more critically*". This highlights the need for gradual scaffolding and support to help students build the skills necessary for higher-order thinking.

4.3.2 Limited Resources and Facilities

The teachers also highlighted that limited resources can be significantly challenging. Several teachers expressed the need for more structured materials and examples that are aligned with HOTS. One teacher noted, "*I would like to have a more detailed guidebook on how to create HOTS questions for English language subjects*," which illustrates the broader issue of resource disparity between urban and rural areas. This lack of resources presents a major barrier to the successful implementation of HOTS, as teachers are often left to adapt existing materials without sufficient support or facilities.

Another difficulty reported in this study was the lack of appropriate resources for HOTS-based education. Many teachers reported relying on textbooks and other materials that did not follow HOTS guidelines. One teacher stated, "*I use the available textbooks, but there aren't many HOTS questions that are suitable,"* implying that existing resources frequently emphasised more on lower-order thinking skills like recall and comprehension than higher-order thinking skills. This finding is consistent with Harendita's (2020) research, which discovered that many Indonesian teachers fail to adopt HOTS due to a lack of relevant materials that promote the development of these abilities.

4.3.3 Continuous Professional Development

Additionally, the participants expressed a desire for more professional development opportunities that focus on the practical aspects of planning and executing HOTS-based test-items. One teacher stated, "Additional training on how to apply HOTS in the classroom would be very helpful". Her statement implied the significance of continued support for teachers as they try to incorporate HOTS into their teaching practice. This necessity for ongoing professional development is underlined in the literature, with researchers such as Lieberman and Miller (2001) suggesting that one-time workshops are frequently insufficient to effect real changes in teaching techniques. Instead, continual opportunities for professional growth, reflection, and collaboration are critical for helping teachers develop the skills and confidence required to adopt new techniques such as HOTS.

5. Discussion

Teacher competency plays a critical role in shaping effective classroom experiences, particularly through practices such as classroom management, lesson planning, and pedagogical decision-making (Nashruddin & Ningtyas, 2020). This study examined teacher competency by exploring how English teachers perceive and apply Higher-Order Thinking Skills (HOTS) in junior secondary schools. The findings provide new insights into teachers' understanding of HOTS, the impact of professional development on their confidence and perceptions, and the ongoing systemic barriers in semi-urban settings. The discussion links these findings to the research questions, theoretical framework, and literature, while outlining practical implications and future research directions.

The study revealed that participating teachers initially held narrow conceptions of HOTS, often equating it with task difficulty or limiting it to domains such as mathematics and science. This finding supports earlier research by Yen and Halili (2015), which found that many educators perceive HOTS as subject-specific and struggle to apply it across disciplines. In the case of English language teaching, such misconceptions may prevent teachers from designing activities that engage students in deeper cognitive processes. The misunderstanding of HOTS as merely "challenging content" rather than a pedagogical approach that fosters analysis, evaluation, and creativity highlights a critical gap in both pre-service and in-service training.

A noteworthy outcome of this study was the visible shift in teacher understanding after engaging in the focus group discussions (FGDs). Teachers began to reconceptualize HOTS as a flexible, interdisciplinary tool that enhances student thinking across subject areas, including language education. This aligns with the work of Donoho (2017) and Koh et al. (2017), who found that collaborative professional learning environments enhance teachers' capacity to translate abstract concepts into practical classroom strategies. The evidence from this study reinforces the value of peer discussions and structured reflection in enabling teachers to move beyond misconceptions and recognize the relevance of HOTS in language learning.

Teacher confidence, or self-efficacy, emerged as a key factor influencing the implementation of HOTS-based assessments. Drawing from Bandura's (1994) theory, which links belief in one's capabilities to performance outcomes, the findings showed that participants gained a sense of empowerment after the FGDs. As teachers developed a more accurate understanding of HOTS, they expressed increased confidence in designing assessment tasks that target higher-order cognitive skills. This result is consistent with Brookhart (2010) and Lai (2011), who argue that scaffolding and gradual integration of HOTS not only support student learning but also build teacher capacity.

However, the findings also underscored persistent structural challenges. Teachers identified students' lack of preparedness, minimal access to instructional resources, and inadequate professional support as major obstacles. These concerns mirror issues raised in previous studies conducted in low-resource environments. Teachers may be conceptually ready to implement HOTS but remain constrained by practical realities such as outdated textbooks, insufficient technology, and time limitations. Addressing these barriers requires broader institutional responses that go beyond teacher training to include systemic support for curriculum, infrastructure, and instructional resources.

This study has several implications for stakeholders involved in education reform, curriculum development, and teacher professional learning. First, professional development programs must be continuous, collaborative, and context-specific. Teachers benefit from training that not only explains theoretical constructs but also models practical applications of HOTS within subject areas like English. Training initiatives should promote reflective dialogue, peer feedback, and hands-on design of HOTS-based assessments.

Second, HOTS should be explicitly embedded in curriculum documents, lesson plans, and classroom resources. Clear exemplars and instructional guides can support teachers in designing tasks that stimulate analysis, synthesis, and creativity. In English classrooms, this may include activities such as argumentative writing, literature analysis, and problem-based language tasks. Policymakers and school leaders should also prioritize the allocation of adequate teaching materials, digital tools, and mentoring programs to sustain HOTS integration in daily teaching practices.

Lastly, promoting a school culture that supports innovation, experimentation, and collective learning is essential. Teachers should be encouraged to share strategies, reflect on challenges, and collaboratively refine their practices. These efforts must be backed by leadership that values continuous professional growth and fosters an environment where higher-order thinking becomes a shared instructional goal.

While this study contributes to the understanding of HOTS implementation in English language teaching, it is not without limitations. The sample was limited to a small group of teachers from a semi-urban area, which restricts the generalizability of the findings. Future studies should explore HOTS integration in more diverse educational contexts, particularly in rural schools and other under-resourced settings. Additionally, since the study relied heavily on self-reported data from teachers, future research could incorporate classroom observations, student work samples, and achievement data to provide a more comprehensive view of HOTS application.

There is also a need for research that examines the long-term effects of professional development programs on teacher efficacy and student outcomes in HOTS. Investigating how teachers maintain or adapt their HOTS practices over time can inform the design of more sustainable training models. Another important direction for future research is exploring the role of educational leadership and policy frameworks in supporting or constraining HOTS implementation. Understanding how institutional structures influence teacher agency and innovation could help bridge the gap between policy and classroom realities.

6. Conclusion

The opinions of English language teachers on HOTS application in junior secondary education were examined in this paper. The results showed that although educators acknowledged the benefits of HOTS, they struggled greatly with regard to student preparedness and limited resources. The study also underlined how transforming group professional development can be in improving instructors' knowledge and confidence in using HOTS.

The study stresses the need for constant professional development, curriculum change, and legislative interventions in order to handle these difficulties. Educational stakeholders can support teachers in fostering higher-order thinking skills by providing essential resources and guidance. Future research should expand on these findings to explore contextual challenges in implementing HOTS and propose solutions across varied educational settings.

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