# EXPLORING STUDENTS' HIGHER ORDER THINKING SKILLS (HOTS): Best Practice in 13 Curriculum at Islamic High School in Bengkulu

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Abstract: In order to apply what has been learnt in a contemporary situation, Higher Order Thinking Skills (HOTS) serve as a metaphor for transferring knowledge and skills. Curriculum 2013 places emphasis on these diverse higher order thinking processes. This study intended to examine what challenges students at Islamic High School in Bengkulu had while using HOTS to answer questions about reading and what caused them to still make mistakes in this situation. The research was descriptive in nature. Techniques of data collection subsumed observation, interviews, and documentation. The results demonstrated that the students still struggled with word misinterpretation at the analysis stage. They had a hard time understanding the information in the provided text during the evaluating stage, and they also struggled to analyze the questions' intentions. The students had a hard time coming up with concepts for new items during the creation stage. The second discovery demonstrated that the elements such as time, students' mastery, students' learning abilities, and the learning environment should all be taken into account. This study concluded that some of these issues, including obstacles, may be to blame for students' poor aptitude for solving HOTS-based problems. This study contributes to providing English academicians with the demographic picture of students' challenges and factors related to HOTS.

Keywords: reading; higher order thinking skills; students' abilities.

Abstrak: Untuk menerapkan apa yang telah dipelajari dalam situasi kontemporer, keterampilan berpikir tingkat tinggi berfungsi sebagai metafora untuk mentransfer pengetahuan dan keterampilan. Kurikulum 2013 menekankan pada beragam proses berpikir tingkat tinggi ini. Penelitian ini bermaksud untuk mengkaji tantangan apa yang dimiliki siswa Madrasah Aliyah Bengkulu saat menggunakan HOTS untuk menjawab pertanyaan tentang membaca dan apa yang menyebabkan mereka masih melakukan kesalahan dalam situasi tersebut. Penelitian ini bersifat deskriptif. Metode pengumpulan data kualitatif meliputi observasi, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa subjek masih berkutat dengan kesalahan interpretasi kata pada tahap analisis. Individu kesulitan memahami informasi dalam teks yang disediakan selama tahap evaluasi, dan mereka juga berjuang untuk menganalisis maksud pertanyaan. Ketiga subjek mengalami kesulitan untuk menghasilkan konsep item baru selama tahap pembuatan. Penemuan kedua adalah bahwa unsur-unsur seperti waktu, penguasaan siswa, kemampuan belajar siswa, dan lingkungan belajar semuanya harus diperhitungkan. Peneliti dapat menarik kesimpulan bahwa beberapa masalah ini, termasuk hambatan, mungkin menjadi penyebab rendahnya kemampuan siswa dalam memecahkan masalah berbasis HOTS. Penelitian ini memeberikan akademisi Bahasa Inggris tentang gambaran demografi terkait tantangan dan faktor HOTS siswa.

Kata kunci: membaca, keterampilan berfikir tingkat tinggi, kemampuan siswa.

# Introduction

A school-based curriculum known as Kurikulum Tingkat Satuan Pendidikan (KTSP) has been continuously developed into the 2013 curriculum in accordance with government policy number 32, which was introduced in 2003 to increase the quality of national educational achievements.

According to the Directorate of High School's policy, assessments created by instructors are expected to foster students' higher order thinking abilities, creativity, and independence in problem-solving.

The 13 curriculum educational process demands that pupils develop fundamental skills that foster

higher order thinking abilities (HOTS).¹ By creating national curricular structures and local content at the local level, the 2013 curriculum is intended to improve educational quality in this context.² If learning is geared toward the cultivation of Higher Order Thinking Skills (HOTS) and maximizes the three major resources in learning—the activities of the educators, the energies of the students, and the energies of the learning environment can be realized.³

It is challenging to learn how to read a text. Actually, understanding the text is not always simple for students. Reading comprehension techniques distinguish the enthusiastic reader from the passive, inexperienced reader.<sup>4</sup> Contrarily, reading serves as the foundation for studying a wide range of disciplines. Every facet of life that you can think of shows how much better a person's capacity to operate is when they can read well. In reading, language and thinking are intertwined because the author hides the idea behind one or another language, which the reader then decodes to reveal the thought. Best aspect requires the ability to swiftly and efficiently absorb knowledge.<sup>5</sup>

Iqra, the word that starts the first verse of the Quran that was revealed to Prophet Muhammad, is followed by verses that clarify the directive to read.<sup>6</sup> It is obvious that reading will facilitate learning for people in this situation. Allah's command regarding critical thinking is included

<sup>1</sup> Dwi Isnaini Amin and Jaslin Ikhsan, "Improving Higher Order Thinking Skills via Semi Second Life," European Journal of Educational Research, vol. 10, no. 1 (2021), pp. 261–274.

in the following verses of the Quran:

إِنَّ فِي خَلْقِ السَّمُوْتِ وَالْأَرْضِ وَاخْتِلَافِ الَّيْلِ وَالنَّهَارِ لَا فَيْ فَا اللَّهُ قِيَامًا وَقُعُوْدًا لَا لَهُ قِيَامًا وَقُعُوْدًا وَعَلَى جُنُوْبِهِ مُ وَيَتَفَكَّرُوْنَ فِي خَلْقِ السَّمُوْتِ وَالْأَرْضِ فَيَعَا مَا خَلَقْتَ هُذَا بَاطِلًا شُبُحْنَكَ فَقِنَا عَذَابَ النَّارِ ﴿

it means: Verily in the creation of the heavens and the earth, and the alternation of night and day, there are signs (of Allah's greatness) for people of understanding, (ie) those who remember Allah while standing, sitting or lying down, and they think about the creation of the heavens and the earth. (saying), "Our Lord, You did not create all this in vain; Glory be to You, protect us from the punishment of hell. (Surah Ali Imran [3] verses 190-191).

The practice of using problem-solving skills is essential, therefore the ability to analyze is a key component of the educational process. Retnawati et al,<sup>7</sup> claim that in addition to applying what they have learned, students are also using analytical methods to help solve a variety of problems that may occur in daily life. Furthermore, it is emphasized that in the twenty-first century, analytical abilities are crucial for dealing with everyday challenges. Learning should be organized so that students' skills are guided toward analysis, even if the facts are difficult, because teachers need a method in which students initiate the process of thinking and analysis. Testing tools can be used to teach and evaluate this skill.

In response to questions from participants in a question-and-answer session with this English teacher at another junior high school in Bengkulu City, it was revealed that, from the standpoint of HOTS (Higher Order Thinking Skills), English learners still require a lot of practice to advance their thinking abilities. Additionally, she said that not enough time had been spent learning English.

The researcher assessed a number of variables, including English teachers and eighthgrade students. It has been discovered that

<sup>&</sup>lt;sup>2</sup> N Sofiana, H Mubarok, and I Yuliasri, English Language Teaching in Secondary Schools: An Analysis of the Implementation of Indonesian ELT 2013 Curriculum, An Analysis ... International Journal of Instruction, vol. 12, (2019).

<sup>&</sup>lt;sup>3</sup> N Nofrion and Bayu Wijayanto, "Learning Activities in Higher Order Thinking Skill (Hots) Oriented Learning Context," *Geosfera Indonesia*, vol. 3, no. 2 (2018), p. 122.

<sup>&</sup>lt;sup>4</sup> Hassan Soleimani and Sajadeh Hajghani, "The Effect of Teaching Reading Comprehension Strategies on Iranian EFL Pre-University Students' Reading Comprehension Ability," *Irjabs*, vol. 5, no. 5 (2013), pp. 594–600.

<sup>&</sup>lt;sup>5</sup> Randip Kaur Valdev Singh and Azianura Hani Shaari, "The Analysis of Higher-Order Thinking Skills in English Reading Comprehension Tests in Malaysia," *Malaysian Journal of Society and Space*, vol. 15, no. 01 (2019), pp. 12–26.

<sup>&</sup>lt;sup>6</sup> Syahreni Siregar, "Speed Reading Acquisition in Reading Text," *Pedagogy: Journal of English Language Teaching*, vol. 3, no. 2 (2017), pp. 135–148.

<sup>&</sup>lt;sup>7</sup> Heri Retnawati, Samsul Hadi, and Ariadie Chandra Nugraha, "Vocational High School Teachers' Difficulties in Implementing the Assessment in Curriculum 2013 in Yogyakarta Province of Indonesia.," *International Journal of Instruction*, vol. 9, no. 1 (2016), pp. 33–48.

students already struggle when asked to perform higher order thinking tasks during exams. They struggle with tests of higher order thinking on their exams. The students had trouble understanding what was being read. While most pupils could read the piece, most were unable to understand its meaning. From a teacher's perspective, one of the issues that leads to subpar student learning outcomes while employing the HOTS approach is the challenge of making eye contact with pupils due to their limited vocabulary. Learners are unable to understand what they are reading because of a lack of vocabulary.

Nevertheless, Tyas and Naibaho, assert that both universities and schools can benefit from the HOTS learning approach to increase learning effectiveness. By posing questions or issues, it is feasible to teach students how to ponder imaginatively. The learners must improve their language ability if the particular threat does not come with obvious inquiries. It is a chance for them to demonstrate their creative problemsolving abilities. Consequently, creating problems is an exercise in original thought. Students may be encouraged to develop their creativity by using their capacity to pose questions and come up with solutions as a means of assessment. In other words, the HOTS learning approach improves the standard of instruction.

Learning in the century of twenty-one stresses problem-solving, communication, and critical thinking to make learning enjoyable.<sup>8</sup> In this day and age, having both creative and critical thinking abilities is really valuable. Students learn to evaluate and analyze material as they progress in their critical thinking abilities. As a result, students will gradually be able to devise original answers to problems. Only students who learn to read can develop these thinking skills. Students must comprehend spoken language, interpret written language, and have a better comprehension of the material in order to do this.

Thus far, studies on HOTS have been executed covering various domains. To mention a few, Heffington and Coady worked on teachers'

efforts to enhance students' HOTS at the level of elementary school.9 At the level of tertiary education, Heron and Palfreyman sought to see the developmental process HOTS acquisition and to measure student participants' HOTS.<sup>10</sup> Interested in the demographic picture of low-achieving students, Zohar and Dori were driven to address how low achieving students could deal with HOTS-based learning.11 Central to the field of information communication and technology, Roy made use of websites as part of computer-assisted language learning media to be a mode to enhance students' HOTS.<sup>12</sup> In Indonesia, there have been a couple of related studies on this subject, including Thamrin's et al. discussion of reading comprehension using the HOTS approach. Indriyana and Kuswandono and Simanjuntak et al.13 and Simanjuntak et al.14 mentioned another study that discussed readingrelated higher order thinking skills. It may be inferred from the conversation and other studies mentioned above that pupils still lack the ability to work on HOTS issues. However, a single study, oriented towards the challenges alongside the factors of HOTS amid English students, is quite scarce. The present study seeks to work on this gap.

Accordingly, a researcher is motivated to learn more about how well children can respond to reading-related questions that require higher order thinking skills. The researcher will examine

<sup>&</sup>lt;sup>8</sup> Alfauzan Amin et al., "The Study of Differences and Influences of Teacher Communication and Discipline Characters of Students," *Jurnal Ilmiah Sekolah Dasar*, vol 5, no. 4 (2021).

<sup>&</sup>lt;sup>9</sup> Deon Victoria Heffington and Maria R Coady, "Teaching Higher-Order Thinking Skills to Multilingual Students in Elementary Classrooms," *Language and Education* (2022), pp. 1–20.

<sup>&</sup>lt;sup>10</sup> Marion Heron and David M Palfreyman, "Exploring Higher-Order Thinking in Higher Education Seminar Talk," *College teaching* (2021), pp. 1–8.

<sup>&</sup>lt;sup>11</sup> Anat Zohar and Yehudit J Dori, "Higher Order Thinking Skills and Low-Achieving Students: Are They Mutually Exclusive?," *The journal of the learning sciences*, vol. 12, no. 2 (2003), pp. 145–181.

<sup>&</sup>lt;sup>12</sup> Shourya Roy, Y Narahari, and Om D Deshmukh, "A Perspective on Computer Assisted Assessment Techniques for Short Free-Text Answers," in *International Computer Assisted Assessment Conference* (Springer, 2015), pp. 96–109.

<sup>&</sup>lt;sup>13</sup> Bernadeta Siska Indriyana and Paulus Kuswandono, "Developing Students' Higher Order Thinking Skills (HOTS) in Reading: English Teachers' Strategies in Selected Junior High Schools.," *Journal of English Teaching*, vol. 5, no. 3 (2019), pp. 204–216.

<sup>&</sup>lt;sup>14</sup> Evelyn Simanjuntak, Wahyuningsih Usidiati, and Elanneri Karani, "Developing A Model of HOTS Questions for Narrative Reading Text for IX Grade Students of SMPN 2 Jorong," *Journal of Environment and Management*, vol. 1, no. 1 (2020), pp. 69–74.

the challenges students face while responding to HOTS questions as well as the causes of their continued blunders.

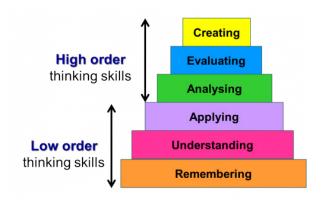
The researcher was motivated to perform a study titled Exploring English Students' Higher Order Thinking Skills (HOTS) in Reading after taking into account the rationale provided above.

### Method

A descriptive qualitative study design was used for this research. Students in the eighth grade served as the research subjects for this study, which was conducted in MAN (Madrasah Aliyah Negeri) 2 Bengkulu City. Students were used as research participants in this study because they had already learned higher order thinking skills, leading the researcher to believe that they would have a better understanding of how to use them (HOTS).

HOTS in this study was anchored in the modified model of Bloom's taxonomy because this model was relevant to the picture of critical and creative thinking skills as idealized by the 2013 Curriculum of Indonesian nasional education. The complete indicators of Bloom's model represented higher and lower-order thinking skills as can be viewed in the following figure 1.

Figure 1. Bloom's model of higher and lower order thinking skills



Because this study was only central to the issue of higher order thinking skills, as displayed in figure 1, the orientation of data analysis only addressed the levels of analyzing, evaluating, and creating.

The researcher discovered the process of teaching and learning in an English subject class and took field notes to get the data. In order to offer accurate and reliable data, the researcher used

observation to document all of the student activities in the classroom. Moreover, biases in data collecting can be eliminated, which prevents data from being skewed (both verbal and nonverbal). In the second inquiry, the researcher interviewed students to see what variables may be keeping them from being able to use HOTS to answer reading comprehension questions in the classroom. Additionally, interviews were conducted to gather the second set of data, which revealed the challenges respondents faced when responding to the HOTS question. The research tool utilized in the teaching and learning process is a camera, which is used to present.

# 2013 Curriculum and English Reading

The 2013 Curriculum seeks to enhance responsive behaviors, abilities, and integrated understanding in order to make Indonesians more productive, creative, and innovative.<sup>15</sup> By enhancing competences in the areas of attitudes (social and spiritual), information, and talents, the curriculum is anticipated to produce original, inventive, creative, and responsive resources.<sup>16</sup>

There are still advantages and cons to implementing the 2013 curriculum, especially in academic contexts. Notwithstanding its intricacy, the 2013 curriculum can benefit activities of education and learning.

Making understanding of a text requires reading. To speak English properly, one of the linguistic skills one should have is this. In order to understand the ideas and meanings offered in the text, students use extensive reading to activate their cognitive processes.<sup>17</sup> Fluent readers get a plethora of information, new insights, and comprehension of the books they have read.<sup>18</sup> Reading comprehension is the process of

<sup>&</sup>lt;sup>15</sup> Imam Gunawan, "Indonesian Curriculum 2013: Instructional Management, Obstacles Faced by Teachers in Implementation and the Way Forward," in 3rd International Conference on Education and Training (ICET 2017) (Atlantis Press, 2017), pp. 56–63.

<sup>&</sup>lt;sup>16</sup> Retnawati, Hadi, and Nugraha, "Vocational High School Teachers' Difficulties in Implementing the Assessment in Curriculum 2013 in Yogyakarta Province of Indonesia."

<sup>&</sup>lt;sup>17</sup> Riswanto Riswanto, "The Impact of a Pre-Questioning Technique on Students' Reading Comprehension at a Bengkulu State Junior High School," *AL-ISHLAH: Jurnal Pendidikan*, vol. 14, no. 2 (2022), pp. 2381–2386.

<sup>&</sup>lt;sup>18</sup> Zelvia Liska Afriani, Meita Anggraini, and Riswanto Riswanto, "The Effect of Question Answer Relationship (QAR)

understanding a text. According to him, reading comprehension is the application of abilities acquired for those other goals to newly acquired knowledge. To become proficient at reading, which is an active process, it necessitates a lot of practice.

Reading strategy is one of the most crucial components of academic success. Strategy is crucial to comprehension because readers use strategies to construct a coherent mental image and explanation of the situations presented in the text.<sup>19</sup> This means that reading is challenging.

For many people, reading comes more naturally than speaking a language, which can be picked up on the go. The ability to detect and investigate social phenomena in texts by delving into their underlying meanings is known as reading comprehension.<sup>20</sup> Reading instruction is regarded as one of the most crucial subjects to teach.<sup>21</sup> Many find it challenging to become proficient readers. As a result of reading comprehension, the meaning of a text is perceived along with the readers' prior knowledge.

# **Higher-Order Thinking Skills**

As a representation of transferring information and skills to apply what has been learnt in a contemporary situation. Higher order thinking skill development for kids is viewed as a primary objective by all students and academic organization.<sup>22</sup> Through the previous procedures, students are able to manipulate the thoughts and knowledge to solve the problems, understand, and find new meanings.<sup>23</sup>

Strategy in Enhancing Students' Reading Comprehension," Journal of English Education and Teaching, vol. 4, no. 4 (2020), pp. 548–558.

The process of learning itself can help pupils develop the thinking abilities they need to retain information and store it in their brains.24There are four different types of thinking talents, according to Amin et al, including problem-solving, decisionmaking, critical thinking, and creative thinking. This is a lesson that hasn't been taught in a while, as it is explained here. HOTS as an exchange integrates analysis, judgment, making, thinking creatively, and assessing consistently by condensing it into the three activities of analyzing, evaluating, and producing, whereas the other two skills, including HOTS as a fundamental consideration, are described as the capacity to make decisions (judgments) based on cogent and logical arguments. Bloom's Taxonomy's higher order thinking offers teachers new insights into how students learn in school. Basic and metacognitive difficulties are both included. The development of systematic and logical thinking, as well as reasoning abilities, which are essential for day-to-day life, is facilitated by HOTS.25 A problem understanding is defined by HOTS as the capacity to recognize difficulties and comprehend diseased structured problems.26 This has to do with the notion of self-awareness.

Making students think is part of using HOTS to educate them. Maulidina<sup>27</sup> asserts that HOTS requires a greater level of thought than rote memorization, fact-finding, or rule-following. Students' ability in all skill areas may increase if they were familiar with and applying HOTS. When considering formulas and producing, the phrases formulae and produces immediately come to mind. HOTS forces us to base our decisions on the truth.

<sup>&</sup>lt;sup>19</sup> Mohamad J Z Abidin and R Riswanto, "Collaborative Strategic Reading (CSR) within Cognitive and Metacognitive Strategies Perspectives," European Journal of Business and Management, vol. 4, no. 1 (2012), pp. 61–69.

<sup>&</sup>lt;sup>20</sup> Dumaris E Silalahi et al., "An Analysis of Students' Achievement in Reading Comprehension through Higher Order Thinking Skills (HOTS)," *Al-Ishlah: Jurnal Pendidikan*, vol. 14, no. 2 (2022), pp. 1853–1868.

<sup>&</sup>lt;sup>21</sup> Detti Lismayanti, "The Effect of Using KWL (Know, Want, Learned) Strategy on EFL Students' Reading Comprehension Achievement," *International Journal of Humanities and Social Science*, vol. 4, no. 7 (2014), pp. 225–233.

<sup>&</sup>lt;sup>22</sup> Yousef Abosalem, "Assessment Techniques and Students' Higher-Order Thinking Skills," ICSIT 2018 - 9th International Conference on Society and Information Technologies, Proceedings (2015), pp. 61–66.

 $<sup>^{23}</sup>$  Nava Nourdad, Sanam Masoudi, and Parisa Rahimali, "The Effect of Higher Order Thinking Skill Instruction on EFL

Reading Ability," International Journal of Applied Linguistics and English Literature, vol. 7, no. 3 (2018), p. 231.

<sup>&</sup>lt;sup>24</sup> Sitti Nurul Qamariyah et al., "The Effect of Implementation of Inquiry-Based Learning with Socio-Scientific Issues on Students' Higher-Order Thinking Skills," *Journal of Science Learning*, vol. 4, no. 3 (2021), pp. 210–218.

<sup>&</sup>lt;sup>25</sup> Samsul Hadi et al., "The Difficulties Of High School Students In Solving HOTS Problems," *Problems of Education in the 21st Century*, vol. 76, no. 4 (2018), pp. 97–106.

<sup>&</sup>lt;sup>26</sup> Simanjuntak, Usidiati, and Karani, "Developing A Model of HOTS Questions for Narrative Reading Text for IX Grade Students of SMPN 2 Jorong."

<sup>&</sup>lt;sup>27</sup> HANIFAH MAULIDINA and FITHRIYAH NURUL HIDAYATI, "TEACHER'S STRATEGIES TO ENHANCE STUDENTS'HIGHER ORDER THINKING SKILLS IN TEACHING READING TO THE SEVENTH GRADE STUDENTS OF SMP AL-ISLAM 1 SURAKARTA" (IAIN Surakarta, 2020).

The capacity for original ideas is a part of HOTS.<sup>28</sup>

Six divisions are present in Bloom's updated taxonomy of cognitive capacities. By incorporating higher-order cognitive processes into their lesson plans, the better classification method aids teachers in extending their lessons beyond memory.<sup>29</sup> Because each cognitive function varies in its level of complexity, this is intended to motivate students to engage in a range of activities. For instance, understanding is regarded as being more comprehensive than memory.<sup>30</sup> In conclusion, these cognitive level categories give students a way to study, practice, and engage with many levels of thinking.

Piaget believed that flexibility and organization are the key factors in how human intellect develops. Assimilation processes are referred to as adaptation. According to Piaget, assimilation happens when youngsters assimilate new information and knowledge into their paradigms, whereas accommodations happen when kids have to modify their conceptual frameworks to "fulfill" the new knowledge.<sup>31</sup>

Teachers therefore need to understand both the emotional (want to learn) and cognitive (conceptualization) components of students' learning.<sup>32</sup> This adjusting process takes place while learning as new information is processed to fit into what is already stored in memory.

# **HOTS** and its Best Practice

Due to a misunderstanding of the word, the MAA subject gave a poor response to the question at the analyzing stage. The interview revealed that the individual is incapable of solving difficulty number one about analysis. It is not too difficult to determine which aspect of the question should be used as a guide while responding to it. In the other case, the student can easily ascertain the main points of the problem's solution. However, the subject finds it difficult to comprehend the text's content because she lacks certain language proficiency.

Based on the interview with subject INY, it is evident that the subject can correctly answer the problem. The student can also identify which parts of the topic are crucial to understanding and which parts can be skipped while going through the procedures to solve the problem.

As evidenced by the DS student work, the DS subject correctly or completely responded to the question; this suggests that the subject was not too challenging to understand. It looks that the subject provided the right response based on the outcomes of the DS subject test. Based on the interview, it can be concluded that the subject can correctly solve the problem, that it is not too difficult for the subject to identify the key information in the question, and that it is not too difficult for the subject to organize all of the information in the question in order to solve it.

In question number 1, which gauges the difficulty of analyzing, the average subjects responded correctly, according to the results of tests and interviews with the three subjects, wherein two subjects responded correctly, and one subject responded wrong. This demonstrates the analytical prowess of the three topics. But even after doing an interview, the MAA subject is still having trouble with word misunderstandings. The student's failure to identify the error in the incorrect response provided is evidence of the difficulty in organizing these topics.

This is similar to the research conducted by Mahfuzah, Jufri, and Fitrawati,<sup>33</sup> which found

<sup>&</sup>lt;sup>28</sup> MAULIDINA and HIDAYATI, "TEACHER'S STRATEGIES TO ENHANCE STUDENTS'HIGHER ORDER THINKING SKILLS IN TEACHING READING TO THE SEVENTH GRADE STUDENTS OF SMP AL-ISLAM 1 SURAKARTA."

<sup>&</sup>lt;sup>29</sup> Tomy Kartika Putra and Debiga Fikky Abdullah, "Higher-Order Thinking Skill (HOTS) Questions in English National Examination in Indonesia," *The Journal of Educational Development*, vol. 7, no. 3 (2019), pp. 178–185.

<sup>&</sup>lt;sup>30</sup> E J Aryani, "Higher Order Thinking Skills (Hots) Realization In Reading Comprehension Questions Found In English Textbooks," *Skripsi. Universitas Negeri Semarang. Semarang* (2020).

<sup>&</sup>lt;sup>31</sup> Cahya Malina Inesti, "AN ANALYSIS OF THE IMPLEMENTATION OF HIGHER ORDER THINKING SKILL (HOTS) IN ENGLISH TEACHING PROCESS (A Descriptive Qualitative Study at Eleventh Grade Students of SMAN o1 Bengkulu Utara in Academic 2019/2020)" (IAIN BENGKULU, 2020).

<sup>&</sup>lt;sup>32</sup> Meri Lestari, "A Study of Mind Mapping in Elementary Islamic School: Effect of Motivation and Conceptual Understanding," *Universal Journal of Educational Research*, vol. 8, no. 11 (2020), pp. 5127–5136.

<sup>&</sup>lt;sup>33</sup> Afifatul Mahfuzah, Jufri Jufri, and Fitrawati Fitrawati, "An Analysis of Students' Ability to Answer Reading Questions with HOTS," *Journal of English Language Teaching*, vol. 8, no. 1 (2019), pp. 71–81.

that students continue to struggle with word interpretation at the cognitive level of analysis.

The student can answer the question, but not exactly, in the evaluating stage based on the work of the MAA subject. She can comprehend the issue, but she is unable to provide a solution. Due to their misunderstanding of the question's purpose and inability to solve the issue, students find it difficult to respond to questions at the evaluating stage.

The student can answer the question, but not exactly correctly, according to their INY subject work. According to the findings of the interviews, this student struggles to respond to questions at the evaluating stage because he is unclear on the question's intent and is unable to come up with a solution. He also finds it challenging to retrieve conclusions.

The student is unable to respond to the question based on the data revealed from DS subject. Only material found in the text that is already known by the student may be mentioned.

Following the findings of the above explanation, students find it challenging to respond to questions at the evaluating stage since they are unsure of the text's meaning. The average subject difficulty in correctly answering questions is measured in question number 2, which assesses the difficulty of evaluating, in a given topic. The three participants' inability to comprehend the information in the provided text is what has led to this. The three subjects struggle to check the facts and struggle to critique the question's meaning, which suggests that the three subjects are still struggling with the assessment stage.

This is consistent with the study of Mitana, Anthony, and Cornelius,<sup>34</sup> which found that linking the data from the text to formulate decisions when answering HOTS questions requires effort. It was in line with a study by Thamrin and Agustin, though, which found that students' ability to respond to the question was less accurately classified. It was therefore assumed that the diverse sample used had an effect on the report's results.

Based on the outcomes of the participants' work, the subjects can respond, but only did so partially, and the response was also not entirely accurate. According to the results of the interviews, students did not respond to the question at the Creating stage because they did not comprehend its meaning, and they then found it challenging to identify the key idea in the text. In addition, students lack the understanding necessary to draw conclusions.

In accordance with the findings of the interviews with INY subject, the student did not respond to the question during the creation stage because he believed it to be the most challenging, which made it impossible for him to come up with ideas for conclusions.

The subject attempted to respond to the question but was nonetheless incorrect, according to the outcomes of DS student work. Depending on the results of the interviews, the student struggled to understand the text's contents when he attempted to respond to questions at the creation stage because he lacked English vocabulary.

The typical participant does not respond to question number 3, which gauges how challenging the Creating stage is. The three subjects had trouble coming up with ideas for new products because they did not understand the questions' intentions.

This result was in line with research done in 2021 by Syafryadin, Alamsyah, and Annisa, which sought to define students' high-level thinking abilities in the domains of analyzing, assessing, and producing in response to reading challenges. He found that the students are still unable to determine the ideal course of action. Furthermore, according to research by Thamrin, Pratomo, and Margana on the investigation of students' thinking abilities in addressing reading questions geared to HOTS, most students are unable to reach that point of creation due to a lack of practice in developing a conclusion of the information received.

The other research issues from this study's findings is what leads pupils to continue making mistakes when responding to HOTS questions. There are various aspects that students must consider when responding to HOTS questions, according to the students' responses to the researchers' conversations with them.

<sup>&</sup>lt;sup>34</sup> John Mary Vianney Mitana, Anthony Mugagga Muwagga, and Cornelius Ssempala, "Assessment of Higher Order Thinking Skills: A Case of Uganda Primary Leaving Examinations.," *African Educational Research Journal*, vol. 6, no. 4 (2018), pp. 240–249.

The essential challenge is a lack of time. When learning HOTS, students have a severe time constraint. The reason for this is that pupils believe they don't have enough time to master HOTS. The hardest task, in the opinion of the students who were interviewed, was scheduling their time. One of the participants asserts that it takes a long time to grasp critical-based learning. The teacher and the pupils would have a terrible time if only one thing in a single meeting failed.

This is consistent with study by Gozali,<sup>35</sup> who discovered that the cultivation of HOTS is a continuous internal process. Students must take the time to contemplate, communicate, debate, interact with, assess, and ask questions during this time-consuming exercise. The limited time allotted for each topic, according to Aryani, may make it challenging for students to construct HOTS-rich courses to be finished in one or two class sessions. Time has reportedly become a crucial component of learning, especially for HOTS-based learning, according to the interview. It follows that one of the most difficult things for students to manage while responding to HOTS questions is time.

Students' learning capacities present the next set of challenges. According to the pupils who were interviewed, vocabulary is one of the difficulties with students' learning abilities. The vocabulary of the students is limited, and most of it is unfamiliar to them. As a result, occasionally kids will note new terminology before talking about the subject. The students were then instructed to research these words' definitions. Some students are familiar with the definitions of these words, while others are not. In order to prevent learning gaps, the teacher must actively help students match their learning styles in the classroom.

This is coherent with Indriyana, who found that learning how to think, learning about thinking, and learning for thinking were the biggest challenges for students, particularly for underprivileged students, in terms of both cognitive learning and learning in a psychomotor and affective manner. To ensure that students can achieve the specified learning goals, the teacher must simplify a variety

of concepts in terms of topic material skills or thinking abilities. Otherwise, students with limited cognitive abilities won't have enough time to practice skills. The teaching and learning process is not properly finished because of limitations in their cognitive capacity.

The next difficulty is the students' level of mastery. The mastery of fundamental skills by kids has a direct impact on their capacity to learn. In light of the fact that not all primary schools and all elementary schools have implemented English curriculum, the interview indicates that the kids' command of the language is still restricted. Students have to work very hard to learn to read. Students need assistance. Students could have trouble accepting new information if their level of competency is still unevenly distributed among them. Continue reading aloud, but this time, the teacher suggests that the male students read aloud first and the female students read aloud second. At this rate, the teacher makes it easier to double-check the student's reading proficiency.

The aforementioned claim is in line with research by Mahfuzah, which discovered that students with different levels of cognitive capacity have different levels of proficiency. Due to the fact that those students need extra individualized attention and that the teacher must repeat the primary skills, this affects HOTS teaching and learning. As a result, mastering is one of the difficulties students encounter while learning HOTS.

The learning environment makes up the final aspect. The learning environment is what presents students with obstacles or challenges when trying to respond to HOTS questions while reading. A context that promotes learning is one in which all the necessary elements are present. During the student interviews that researchers undertake, some students typically provide an explanation of the learning environment in the classroom. Nearly all students report that classes are frequently less conducive, busy, or full of people who talk quietly while the teacher explains, and that some students do not pay attention, such those who doze off in class while it is in session. Most students become distracted while learning as a result. This is similar to Mitana who states that one of the crucial elements that can assist students' abilities

<sup>&</sup>lt;sup>35</sup> Imelda Gozali et al., "HOTS Questioning Ability and HOTS Perception of Language Teachers in Indonesia," *Indonesian Journal of Applied Linguistics*, vol. 11, no. 1 (2021), pp. 60–71.

while responding to HOTS questions is the learning setting.

# Conclusion

The first issue is the difficulties of responding to HOTS questions. Based on the observation, the researcher concluded that one of the three individuals is still having trouble misinterpreting the word during the Analyzing stage. Some students have trouble understanding the facts in the book during the evaluating step. The three subjects find it challenging to verify the facts, and they also find it challenging to dispute the question's intent. The three individuals have trouble coming up with ideas for new items during the developing stage since they did not understand the questions' intentions.

The second relates to the causes of students' continued errors when responding to HOTS questions. The researcher learns about numerous issues that students have to deal with when they are asked to respond to HOTS questions. The researcher's observations and interviews lead to the identification of four challenges that students face when responding to HOTS questions. Time, student mastery, student learning ability, and learning situation are just a few of the variables to take into account. The foregoing occurs as a result of students' continuing lack of understanding of higher order thinking skills.

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