

AN ANALYSIS OF STUDENTS' ABILITY TO ANSWER READING ASSESSMENT WITH HIGHER ORDER THINKING SKILLS (HOTS)

Anggi Muti'ah^{1*}, Reflinda², Melyann Melani³, Eliza⁴

¹UIN Sjech M. Djamil Djambek Bukittinggi, Bukittinggi, Indonesia, email: anggiMutiah9@gmail.com

²UIN Sjech M. Djamil Djambek Bukittinggi, Bukittinggi, Indonesia, email: reflinda88@gmail.com

³UIN Sjech M. Djamil Djambek Bukittinggi, Bukittinggi, Indonesia, email: melyannmelani@gmail.com

⁴UIN Sjech M. Djamil Djambek Bukittinggi, Bukittinggi, Indonesia, email: eliza@uinbukittinggi.ac.id



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**Corresponding Author*

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Abstract

This research is motivated by concerns about students' low ability to answer reading assessments with higher-order thinking skills (HOTS). Most of the issues that arise indicate that students' skill abilities are still low, and some students are not ready to face contextual problems, reasoning, situations that require creativity, all of which commonly occur in HOTS. The purpose of this research is to deepen understanding of students' abilities in the aspects of analysis, evaluation, and creation, which are key components of HOTS. The study was conducted on 30 eighth-grade students at Madrasah Tsanawiyah Negeri 02 Pasaman Barat as a representation of the population. The instrument used was a reading test consisting of 20 multiple-choice questions that measure three components of HOTS: analyzing, evaluating, and creating. The test indicators were adopted from Bloom's Taxonomy and Anderson. The research results show that students' high-order thinking abilities in answering reading assessments are sufficient. It can be seen from the average scores obtained by students in the analyzing component (64.66), evaluating (72.85), and creating (61.39), with an overall average for all components (66.3) falling into the "Sufficient" category. The implications of this research can provide guidance for the development of more effective learning strategies to enhance students' higher-order thinking skills in the context of reading.

Keywords: student ability, reading, higher order thinking skills (HOTS)

Abstrak

Penelitian ini dilatarbelakangi oleh kekhawatiran atas rendahnya kemampuan siswa dalam menjawab penilaian membaca dengan keterampilan berpikir tingkat tinggi (HOTS). Sebagian besar permasalahan yang muncul menunjukkan kemampuan keterampilan siswa masih rendah dan sebagian siswa belum siap menghadapi soal-soal kontekstual, penalaran, situasi yang membutuhkan kreativitas. Tujuan penelitian ini adalah untuk mendalami pemahaman tentang kemampuan siswa dalam aspek analisis, evaluasi, dan kreasi, yang merupakan komponen kunci dari HOTS. Penelitian ini dilakukan pada 30 siswa kelas VIII Madrasah Tsanawiyah Negeri 02 Pasaman Barat sebagai representasi populasi. Instrumen yang digunakan adalah tes membaca terdiri dari 20 soal pilihan ganda yang mengukur tiga komponen HOTS; menganalisis, mengevaluasi, dan mencipta. Indikator uji diadopsi dari Taksonomi Bloom dan Anderson. Hasil penelitian menunjukkan bahwa kemampuan berpikir tingkat tinggi siswa dalam menjawab penilaian membaca sudah cukup. Hal ini dibuktikan dengan nilai rata-rata yang diperoleh siswa pada komponen menganalisis (64,66), mengevaluasi (72,85), dan mencipta (61,39) dan rata-rata untuk seluruh komponen (66,3) adalah kategori Cukup. Implikasi dari penelitian ini dapat memberikan panduan untuk pengembangan strategi pembelajaran yang lebih efektif dalam meningkatkan keterampilan berpikir tingkat tinggi siswa dalam konteks membaca.

Kata Kunci: kemampuan siswa, membaca, higher order thinking skills (HOTS)

1. Introduction

In the English subject, there are four essential language skills to acquire: listening, speaking, reading, and writing. According to Depdiknas (2004), mastering the English language goes beyond a mere grasp of vocabulary and grammar; students must also apply their knowledge in communication. Proficiency in all these skills is crucial for students to comprehend English effectively. Among these skills, reading holds a particularly significant role and should be a mastered ability for students. In this context, it becomes evident that reading plays a vital role in facilitating learning. It serves as a conduit for humans to enhance their understanding of the language. However, comprehending a text is not always an easy task for students. Understanding how to navigate and extract meaning from written material poses challenges, making it essential for students to develop effective reading skills.

In response to the challenges and demands of contemporary life, the 2013 curriculum was strategically enhanced to address various aspects. These improvements encompass content standards, aiming to streamline material by reducing irrelevant content and catering to the intellectual needs of students, encouraging critical and analytical thinking aligned with international standards. Simultaneously, assessment standards were refined by incorporating international assessment models. This adaptation allowed for the creation of assessment instruments focused on measuring higher-order thinking skills, as outlined by Direktorat Jenderal Pendidikan Dasar dan Menengah Kementerian Pendidikan dan Kebudayaan (2017). The overarching goal of these enhancements is to positively impact the learning and assessment processes under the 2013 curriculum. The intention is to assist students in cultivating and advancing their higher-order thinking skills. Consequently, this should empower students to gradually generate creative ideas, equipping them with the ability to overcome challenges. It is emphasized that the development of thinking skills is intricately tied to the enhancement of reading skills. The latter necessitates students to not only comprehend spoken words but also decode written language, ultimately leading to a comprehensive understanding of textual content.

According to Yoki Ariyana (2018), Higher Order Thinking Skills (HOTS) is a process of thinking in a higher cognitive level that is developed from a variety of cognitive concepts and methods and taxonomies of learning, teaching, and assessment. The main purpose of higher order thinking skills is how to improve the ability to think critically in receiving various types of information. HOTS is a skill that is currently very important for developed in learning. That student's higher order thinking skills in learning to help children more aware of their performance and growth cognitive ability, especially higher order is very important in education both for academic success and as a provision in public.

According to Bloom Taxonomy (2001) which was revised by Anderson and Krathwohl, the cognitive domain consist of remembering, understanding, applying, analyzing, evaluating, and creating. The reason for using Taxonomy Bloom as a basis for learning is because it is a powerful tool for developing learning goals because it illustrates the learning process. By following the learning process, students' thinking skills will gradually increase.

According to Kemendikbud (2013), the 2013 curriculum underwent significant enhancements. These improvements encompassed various aspects, particularly content

standards. The modifications in content standards were directed at eliminating irrelevant material while concurrently expanding on content deemed relevant to students. The enriched material aligns with the students' requirements, emphasizing critical thinking in accordance with international standards. Furthermore, notable refinements were introduced to the assessment models within the curriculum. The alterations in assessment methods were intended to facilitate the measurement of learning outcomes. It is anticipated that these assessments will play a pivotal role in aiding students to enhance their Higher Order Thinking Skills (HOTS). The emphasis on higher-level thinking is expected to encourage students to delve into subjects more broadly and deeply, fostering a comprehensive understanding of the subject matter.

Reading not only provides readers with knowledge of the world but also serves as a stimulus for constructing and developing critical and creative thinking. Fazriani (2019) emphasizes the vital role of reading ability in English education. The understanding derived from reading can be assessed through thoughtful questions embedded in the book's content or by reviewing what has been gleaned from the reading experience. Such questions, far from being obstacles, actually serve as tools to prompt critical thinking and engage students in various levels of thought, fostering a thorough understanding of the text.

To gauge the success of Higher Order Thinking Skills (HOTS)-based learning objectives, a corresponding HOTS-based assessment becomes imperative. Instruments for HOTS-based assessment have been meticulously developed, grounded in indicators of higher-order thinking skills, namely, analyzing (C4), evaluating (C5), and creating (C6), as identified by Pipit Pudji Astutik (2018). Teachers play a pivotal role in acclimating students to answering HOTS questions, thereby enhancing their competitiveness. The implementation of HOTS-based assessments equips students with competencies essential for navigating the challenges of the 21st century.

Based on preliminary research, conducted through an interview with an English teacher at the Eighth Grade of State Islamic 02 West Pasaman on April 11th, 2022, it was revealed that several students face challenges in higher-order thinking assessments. As per the teacher's explanation, these students encounter difficulties in comprehending the meaning of the reading material. Despite being able to read the passage, a majority struggled to grasp its content fully. Furthermore, the students received tasks from the teacher, resulting in low performance in vocabulary exercises. Data collected by the researcher indicates that students in the Eighth Grade (VIII.1) at State Islamic Junior High School 02 West Pasaman during the academic year 2021/2022 demonstrated a deficiency in vocabulary skills (refer to Appendix 1). Notably, the results fell below the Minimum Completeness Criteria (KKM) of 70.05, while the KKM for the Reading subject is set at 75. This discrepancy suggests a need for targeted interventions to address both vocabulary and reading comprehension challenges among the students, fostering an environment conducive to academic improvement.

Following this, the researcher conducted interviews with eight students from the Eighth Grade at State Islamic 02 West Pasaman. During these interviews, additional issues were identified. Primarily, students exhibited challenges in responding to Higher Order Thinking Skills (HOTS) questions, and some struggled with inference abilities. This difficulty indicates a lack of proficiency in conducting deeper analyses of textual content. Notably, HOTS in reading necessitates the capability to make inferences—drawing conclusions that are not explicitly

expressed in the text. The majority of students faced challenges in reaching such conclusions or making inferences beyond the direct content of the text. This finding underscores the need for targeted interventions to enhance students' critical thinking skills and inference abilities, thereby addressing specific challenges identified in the HOTS-based assessments.

In conclusion, this article delves into the critical exploration of students' proficiency in responding to reading assessments, particularly those aligned with Higher Order Thinking Skills (HOTS). The introduction has provided insights into the fundamental importance of language skills in English education, emphasizing the pivotal role of reading in nurturing critical and creative thinking. Additionally, we have examined the enhancements incorporated into the 2013 curriculum to foster higher-order thinking and the subsequent challenges faced by students in its implementation. The preliminary research findings shed light on specific hurdles, such as vocabulary limitations and difficulties in addressing HOTS questions, identified through interviews with both teachers and students. As we embark on a comprehensive analysis, the subsequent sections will delve deeper into these issues, offering valuable insights and proposing targeted interventions to fortify students' abilities in meeting the demands of HOTS-based reading assessments.

2. Method

This study employs a quantitative research design, focusing on the collection and analysis of numerical data to describe, explain, and predict students' abilities in answering reading assessments with Higher Order Thinking Skills (HOTS). The research is conducted among Class VIII students at Madrasah Tsanawiyah West Pasaman during the academic year 2022/2023. The population consists of seven classes, and the study randomly selects five classes (VIII.3, VIII.4, VIII.5, VIII.6, and VIII.7) with six students each for analysis. Simple random sampling is applied due to the assumption of uniformity in the students' levels based on the same teacher, syllabus, and materials.

The primary research instrument is a reading test, utilizing multiple-choice questions framed around analyzing, evaluating, and creating. The questions are designed based on indicators from Bloom and Anderson and Karthwol. Content validity is ensured through consultation with English Education Department lecturers at UIN Sjech M. Djamil Djambek Bukittinggi, while reliability is maintained for consistent and accurate measurements.

Content validity is achieved through consultation with experts, ensuring that the questions accurately represent the intended variables. The lecturers from the English Education Department contribute to validating the test items. Reliability in this study refers to the consistency and stability of the test. The goal is to produce consistent scores even when administered in different situations. A reliable test ensures that results are consistently measured, and the researcher maintains the accuracy of the measurement.

The analysis involves the use of tests to evaluate students' abilities in answering reading questions with HOTS. Data are processed using applicable formulas or rules, as stated by Arikunto (1998). The test, administered outside formal classroom activities, involves 30 sample students to assess their performance in HOTS-based reading assessments.

3. Results and Discussion

A. Findings

1. Analyzing Students' Higher Order Thinking Skills in Response to Analytical Questions

In the evaluation of students' proficiency in responding to analytical questions, a subset of the overall assessment, five questions out of a total of twenty were dedicated to this category. This necessitated the meticulous analysis of 150 data points, with each student's answer scrutinized individually. Upon detailed examination, the research findings unveiled a spectrum of performance levels. Notably, 9 students demonstrated a commendable "Good" proficiency in analytical thinking. Additionally, 19 students showcased an "Adequate" level of competence in their responses. However, one student struggled, attaining a "Poor" rating in this category. Through a comprehensive calculation of individual scores, the average student's ability to answer analytical questions in Higher Order Thinking Skills was determined to be 64.66. This places the overall proficiency in the "Adequate" category, offering valuable insights into students' analytical capabilities in the context of the assessment.

2. Analyzing Students' Higher Order Thinking Skills in Responding to Evaluative Questions

In examining students' proficiency in handling evaluative questions, a subset comprising seven questions out of the total twenty in the assessment was dedicated to this specific category. This resulted in the analysis of 217 data points, with each student's responses meticulously scrutinized.

The research findings highlighted diverse performance levels among the students. Notably, a significant 20 students demonstrated an outstanding "Excellent" proficiency in evaluative thinking. Additionally, 5 students showcased a commendable "Good" level of competence, while another 5 students exhibited an "Adequate" performance. However, one student struggled, attaining a "Poor" rating in this category.

Through an intricate calculation of individual scores, the research established that the average student's ability to answer evaluative questions in Higher Order Thinking Skills was 72.85. This places the overall proficiency in the "Good" category, providing valuable insights into students' evaluative capabilities within the context of the assessment.

3. Analyzing Students' Higher Order Thinking Skills in Responding to "Creating Questions"

In scrutinizing students' proficiency in handling questions that demand creative thinking, a distinct set comprising seven questions out of the total twenty in the assessment was allocated to this specific category. This led to the analysis of 210 data points, with each student's responses meticulously examined.

The research findings unveiled a spectrum of performance levels. Notably, 4 students demonstrated an exceptional "Excellent" proficiency in creative thinking. Furthermore, 11 students showcased a commendable "Good" level of competence, while another 10 students exhibited an "Adequate" performance. On the other hand, 5 students encountered challenges, attaining a "Poor" rating in this category.

Through a detailed calculation of individual scores, the research determined that the average student's ability to answer "creating questions" in Higher Order Thinking Skills was 61.39. This places the overall proficiency in the "Adequate" category, offering valuable insights into students' creative capabilities within the context of the assessment.

B. Discussion

Reading is a cognitive process essential for comprehending written materials. It necessitates the decoding of words, sentences, and paragraphs to grasp a text as a unified whole. In addition, Harmer (1996) asserts that reading is an activity primarily governed by the eyes and the brain. The eyes receive messages, and the brain subsequently interprets the significance of these messages. This implies that individuals visually acquire information, and their cognitive processing allows them to understand the meaning. The ability to achieve success in reading activities is closely linked to students' cognitive abilities. If students possess strong critical thinking skills, they are likely to excel in reading. This is attributed to their capacity to discern the author's purpose in crafting the reading text and to comprehend the intrinsic meaning of the text itself. In essence, effective reading is not merely a mechanical process but one that involves mental engagement and interpretation.

Higher Order Thinking Skills (HOTS) encompass critical thinking, logical reasoning, and creativity. According to Brookhart (2010), there are three categories that delineate the definition of higher-order thinking. First, there are those who define higher-order thinking in terms of transfer. Second, there are those that define it in terms of critical thinking. Finally, there are those that define it in terms of problem-solving. These categories illustrate the multifaceted nature of HOTS, highlighting its diverse dimensions and the various cognitive processes it encompasses.

In conclusion, the examination of Eight Grade Students' responses to creating questions at Islamic Junior High School 02 West Pasaman sheds light on their proficiency in higher-order thinking skills. The average score of 61.39, coupled with the distribution of scores, indicates a commendable level of competence among the students. The presence of students scoring "Excellent" and "Good" reflects a substantial understanding of analytical processes, while even those in the "Adequate" and "Poor" categories contribute to a diverse spectrum of abilities.

These findings underscore the multifaceted nature of higher-order thinking skills, encompassing critical analysis and problem-solving. While some students excel, others face challenges, revealing opportunities for targeted interventions and further skill development. Overall, the results suggest that the students at Islamic Junior High School

02 West Pasaman exhibit a satisfactory level of proficiency in analyzing information within the context of creating questions, contributing positively to their academic development in higher-order thinking skills.

4. Conclusion

In summary, the evaluation of Students' Higher Order Thinking Skills (HOTS) in responding to reading questions places them in the category of "good," as indicated by the mean scores of 64.66 for analyzing, 72.85 for evaluating, and 61.39 for creating. While the results suggest a commendable level of proficiency, it is apparent that there is room for improvement, signaling a certain degree of inadequacy in the comprehension of Higher Order Thinking Skills.

Therefore, the overall performance of students in answering reading questions with Higher Order Thinking Skills at the Eighth Grade of Junior High School 02 West Pasaman is deemed adequate. The assessment provides valuable insights into the students' capabilities, emphasizing the need for continued efforts to enhance their higher-order thinking skills for more comprehensive and nuanced comprehension.

Building on the conclusions drawn earlier, the following recommendations are put forth by the researcher:

1. Students are encouraged to actively work on enhancing their Higher Order Thinking Skills (HOTS) specifically tailored to each component when responding to reading questions. Engaging in targeted practices and exercises aligned with analyzing, evaluating, and creating will contribute to their overall proficiency in higher-order thinking.
2. English teachers are advised to diversify their questioning styles to capture students' attention during reading and question-answering activities. Incorporating varied question formats and strategies can stimulate students' critical thinking and foster a more dynamic learning environment.
3. These findings are anticipated to serve as a valuable reference for future researchers delving into the realm of Higher Order Thinking Skills (HOTS) in reading questions. Further exploration of students' abilities in each component will contribute to a more comprehensive understanding of the dynamics involved in nurturing higher-order thinking skills in the context of reading comprehension.

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