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## An Analysis Of English Summative Assessment Item Of Merdeka Curriculum Based On Bloom's Taxonomy At Smp N 4 Cilacap

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### Abstract

*This study aims to determine the compatibility of the summative assessment item of the Merdeka Curriculum used at SMP N 4 Cilacap. This research uses a quantitative descriptive method based on Bloom's Taxonomy operational verb tables. There are 47 questions for the midterm assessment and 50 questions for the semester assessment. So, there are 97 English summative assessment items given by the teacher and used to measure students' level of understanding. The summative assessment items studied consisted of the 2022/2023 academic year midterm and semester assessments. The results of this research are that questions in the LOTS category have a higher percentage than the HOTS category. In midterm assessment items, questions in the LOTS category reached 78%. Meanwhile, in semester assessment items, the number of items that have the LOTS category is 66%. So, based on this research, items categorized as LOTS dominate the Summative Assessment items at SMP N 4 Cilacap. So, this research shows that the summative assessment items at SMP N 4 Cilacap are incompatible with the Merdeka Curriculum. Based on these results, it is hoped that the preparation of assessment items in the following year will be further improved so that students can think more critically by the level of thinking in the Merdeka Curriculum.*

**Keywords:** Bloom's Taxonomy, summative assessment, Merdeka Curriculum

## A. Introduction

The curriculum is a bridge or guide in organizing learning activities to achieve specific goals. The curriculum comes from the Greek “*curriculae*,” meaning “a place to race.” When associated with education, this means “several subjects that must be taken by a student from the beginning to the end of the program to get a diploma”(Khoirurrijal et al., n.d.). A curriculum can be defined as a set or system of plans and arrangements regarding the content and learning materials and the methods used as guidelines for teaching and learning activities. The curriculum requires several components related to each other to achieve the goal. The curriculum aims to guide students to describe or explain the applied education system. Indonesia has several curricula that have been used to improve the quality of Indonesian education. Each curriculum certainly has its distinct characteristics. Even though they have different aspects, this curriculum aims to enhance the quality of Indonesian education. One is the 2013 curriculum, which was used before the Merdeka Curriculum. One of the improvements in the 2013 curriculum is content standards, which are enriched with the needs of students to be able to think critically and analyze according to international standards, while the assessment standards provide space for the development of assessment instruments (tests) for higher- order thinking(Rosidah et al., n.d.). Therefore, the 2013 curriculum expects students to have high-order thinking skills. These thinking skills teach students to be able to solve problems, think critically, and also be able to argue (Magdalena et al., 2020). In addition, with these skills, students can think more critically and explore the subject matter. So that students are able to solve items classified as HOTS (High Order Thinking Skill).

In the curriculum, an assessment is defined as a tool to measure student learning results at the end of learning so that teachers can know the level of student understanding. Likewise, in the Merdeka Curriculum,

an assessment term was interpreted as a measurement of student learning outcomes at the end of learning. This leads to justification that a student is intelligent, clever, moderate, or less. Assessment is a set of activities for collecting, analyzing, and interpreting data about student learning processes and results, carried out systematically and continuously to obtain meaningful information for decision-making (Dr. Eny Winaryati, M.Pd, 2018). According to its objectives, the assessment is divided into Formative Assessment and Summative Assessment. Formative Assessment aims to monitor and improve the learning process and evaluate the achievement of learning objectives. Formative assessment is included in part of the learning step. The summative assessment aims to assess the achievement of learning objectives and student learning results to determine grade promotion or graduation from an education. The summative assessment items in the Merdeka Curriculum are included in the HOTS items based on Bloom's Taxonomy. However, the Merdeka Curriculum is still very new in Indonesian education, so some teachers do not understand this Merdeka Curriculum.

### **Summative Assessment**

According to Gronlund, Assessment is a systematic process of collecting, analyzing, and interpreting information/data to determine the extent to which students have achieved learning objectives. Thus, it can be concluded that assessment is a systematic and continuous process or activity to collect information about student learning processes and outcomes in order to make decisions based on certain criteria and considerations (Ukashatu, 2021). (Report of Biological Education, 2021). There are two types of assessment of students, namely Summative and Formative. While Summative assessment is done periodically. Summative Assessments are usually applied at the end of a period of instruction to measure the outcome of student learning (Kibble, 2017). Summative assessment is an assessment

activity that produces scores or numbers that are then used to make decisions on student performance (Magdalena et al., 2020). According to (Harlen, 2005), Unlike formative or diagnostic assessments, the purpose of summative assessment is to determine the student's overall achievement in a specific area of learning at a particular time, a purpose that distinguishes it from all other forms of assessment. The use of summative assessment can be grouped into internal and external to the school community. Internal use includes regular assessments for record keeping, informing decisions and results to be reported to parents and students themselves. External uses include certification by examination bodies or for vocational qualifications, selection for employment or for further or higher education, monitoring the school's performance and school accountability, often based on the results of externally created tests or examinations (Harlen, 2005).

This summative assessment is used to obtain a final assessment of how much learning has occurred and also how much students know. Summative assessment is not only used to show or find out the results of student understanding but this summative assessment can also train students to think more critically when they apply their understanding under new conditions to solve a new problem or to explain a new phenomenon (Rufaidah, 2022). Therefore, so that students are able to think at a higher level, students are given questions that are in the HOTS category. The teacher's role in developing students' thinking so that they can think critically is very important. Teachers can use questions that require students to use higher-order thinking in class while looking at the difficulty's students face.

### **Merdeka Curriculum**

According to (Munandar, n.d. 2017) the curriculum is a map that can be used as a compass in the teaching and learning process, regardless of how educators teach, but it is not ruled out that the curriculum is a concrete step in shaping the character and attitudes of students. The curriculum here can

also be defined as a guide in teaching and learning activities that will be carried out by the teacher. So that the teacher can determine what media and methods will be used during the learning process. The curriculum also has many and frequent name changes and of course also changes the rules and learning standards. The curriculum currently being implemented by Indonesia is the Merdeka Curriculum. For educational units designated as executors of the Driving School Program and the Central for Vocational High School Program of Excellence, the curriculum used refers to the Merdeka Curriculum and fulfilment of teacher workload and linearity in accordance with this Ministerial Decree (Permendikbudristek, 2022).

Based on government regulations in 2022, Indonesia uses the "Merdeka Curriculum" with a Pancasila student profile. "Merdeka Curriculum" is a curriculum that contains multipurpose internal learning whose content is optimized so that students have sufficient time to familiarize themselves with concepts and strengthen their skills. Pancasila's student profile is a translated form of the goals of national education. According to the Ministry of Education and Culture, Pancasila's student profile is a postgraduate profile that aims to show the character and abilities to be achieved and to reinforce Pancasila's noble values for its students and stakeholders. The Pancasila student profile consists of six dimensions, there are: 1) Faith, fear of God Almighty, and noble character, 2) Independent, 3) Working together, 4) global minded, 5) Critical reasoning, and 6) Creative (Sudirman, n.d.). The main objective of Pancasila's student visibility is to develop each student's personality and practical skills through school culture, extra-curricular activities, Pancasila's student profiling project and system culture (Utari & Afendi, 2022).

### **Bloom's Taxonomy**

According to Anderson (Anderson & Krathwohl, n.d.) A taxonomy is a special kind of framework. In a taxonomy the categories lie along a

continuum. The continuum becomes one of the major organizing principles of the framework. In our Taxonomy we are classifying objectives. A statement of an objective contains a verb and a noun. The verb generally describes the intended cognitive process. In contrast with the single dimension of the original Taxonomy, the revised framework is two-dimensional. As suggested in the preceding paragraph, the two dimensions are cognitive process and knowledge. We refer to their interrelationships as the Taxonomy Table. The cognitive process dimension contains six categories: Remember, Understand, Apply, Analyze, Evaluate, and Create. Taxonomy has six categories of cognitive processes or what can be called C1 to C6. However, in this category of questions, the cognitive processes are divided into two. For the LOTS category, it contains C1 to C3, namely remembering, understanding and also applying. Whereas for the HOTS category, of course, there are more cognitive categories, namely C4 to C6 which contain analysis, evaluation, and also create. Therefore, if there is a question that has a high category indicator, then the question is included in the HOTS question category.

Cognitive is the ability to think that involves knowledge that focuses on reasoning and problem solving, connecting, assessing and considering an event or event that is rational or involves reason (Anderson & Krathwohl, n.d.). Cognitive levels are one of the levels that students go through in forming and determining student abilities. As previously written, the cognitive level in Bloom's taxonomy has 6 levels, that is:

#### 1. Remember (C1)

Remembering is the retrieval or retrieval of relevant stored knowledge from long-term memory. This required knowledge may be factual, conceptual, procedural, or metacognitive knowledge, or a combination of some of this knowledge. Remembering knowledge is important as a provision for meaningful learning and solving problems because this

knowledge is used in more complex tasks. Student memory assessments can be carried out using questions related to the cognitive processes of recognizing and recalling (Anderson & Krathwohl, n.d.).

## 2. Understanding (C2)

Understanding is describing the structure in terms of learning messages, including morals, writing and graphic communication (Kiki Andrianil et al., 2022). Students are said to understand if they can construct meaning from learning messages, whether verbal, written or graphic, delivered through teaching, books or computer screens (Anderson & Krathwohl, n.d.). The categories contained in these levels are, interpreting, exemplifying, classifying, summarizing, inferring, comparing, explaining.

## 3. Applying (C3)

Applying is using a procedure to carry out an experiment or to solve a problem. Applying includes carrying out and implementing activities (Anderson & Krathwohl, n.d.). Carrying out is a student's cognitive process in solving problems and carrying out experiments where students already know the information contained in the problem and are able to carry out the steps that must be carried out. Meanwhile, implementing this occurs when students carry out steps on questions that students do not yet know.

## 4. Analyze (C4)

Analyzing is the ability to break down a whole into parts and determine how these parts are related to one another or the parts to the whole. Categories that include the cognitive level of analysis are, distinguishing, organizing, and attributing.

## 5. Evaluate (C5)

Evaluating is defined as making decisions based on criteria and standards. The criteria most often used are quality, effectiveness, efficiency and consistency (Anderson & Krathwohl, n.d.). The categories included in evaluating are, examining and criticizing.

## 6. Create (C6)

Creating is putting parts together into an idea, all interconnected to create a good result. The categories included in create are, formulating, planning and producing. In this formulating category comes up with alternative hypotheses based on criteria. Meanwhile, in the planning category, devising a procedure for accomplishing some task. The last one is the producing category. In this category, plans are made to solve problems that meet certain specifications.

## B. Methode

This research uses quantitative descriptive because it analyzes the cognitive level of the questions in class 7 summative assessment items in the 2022/2023 academic year by calculating the percentages using a general percentage equation, which is then explained in sentence form. Meanwhile, the compatibility of the summative assessment items is analyzed from the results of the cognitive level percentage and described in sentence form. Quantitative descriptive methods in this research aim to determine the compatibility of summative assessment based on Bloom's taxonomy. The data analyzed is first validated by experts. According to Wiwik et al., Quantitative descriptive research is research that describes, examines, and explains a phenomenon with data (numbers) as is without the intention of testing a particular hypothesis (Sulistiyawati & Trinuryono, 2022).

Collecting data is an activity that looks for data in the field of research to answer the problem statement while gaining the data. The data to be analyzed is in the form of assessment items given by the teacher to grade 7th students at SMP N 4 Cilacap, which have used criteria from the Merdeka Curriculum, and this study focused on summative assessments. In carrying out this research, researchers collected data using documentation techniques. Documentation is a set of documents provided on paper or



digital media that are used as the data of the research. According to Creswell, research documentation can be public documents such as newspapers and magazines or private documents such as journals and letters (Creswell & Creswell, n.d.). This study used the documentation technique of the English summative assessment with content analysis methods using Bloom's Taxonomy operational verbs.

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This research uses descriptive quantitative, and this research shows how suitable the summative assessment questions based on Bloom's taxonomy are, as in the following table:

Table 1 Category of Cognitive Level

Cognitive Levels	Cognitive Process	Categories
Remembering (C1)	Recognizing and Recalling.	
Comprehension (C2)	Interpreting, Exemplifying, Classifying, Summarizing, Inferring, Comparing, and Explaining.	Lower Order Thinking Skills (LOTS)
Applying (C3)	Carrying out and Implementing.	
Analysis (C4)	Distinguishing, Organizing, and Attribute.	
Evaluating (C5)	Quality, Effectiveness, Efficiency, and Consistency.	High Order Thinking Skill (HOTS)
Creating (C6)	Formulating, Planning, and Producing.	

The table above was used in this research to simplify classifying the types of questions being analyzed. At each cognitive level there are operational verbs that are often used in preparing questions and are used as keywords in question commands. At each cognitive level, there are increasing levels of student thinking. The higher the level, the higher the quality of the questions; of course, students can think more critically. The table above is used in this research to categorize the analyzed questions. The data that has been collected in this research is then analyzed by experts.

After analyzing and collecting the results, the number of questions is drawn based on their level, and then the general equation percentage is carried out. The percentage of cognitive stages can be calculated using the following equation:

$$P_i = \frac{N_i}{N} 100\%$$

$P_i$  = The percentage of questions categorized at cognitive level -i. (i: C1, C2, C3, C4, C5, dan C5)

$N_i$  = Total of questions categorized i.  $N$  = Total of questions.

After determining the percentage based on cognitive level, the next step is calculating the percentage based on the question category. Questions included in the LOTS category have three cognitive levels: C1, C2, and C3. Meanwhile, the HOTS question category has three cognitive levels: C4, C5, and C6. After the calculations based on the question categories have been determined, conclusions can be drawn.

### C. Findings And Discussions

In this study, analyzed 2 types of summative assessment items, that is midterm assessment and semester assessment and it can be concluded that the summative assessment items found at SMP N 4 Cilacap were included in the LOTS question category and were in accordance with the Merdeka Curriculum. 31 However, in the midterm assessment items, where the questions are directly prepared by the teacher from the school, there are questions in the LOTS category. In the midterm assessment items, there are 37 questions in the LOTS category and 10 questions in the HOTS category. Meanwhile, in the semester assessment there are 33 questions in the LOTS category and there are 17 questions in the HOTS category. This research classifies LOTS and HOTS categories based on the operational table in bloom tax.

LOTS			HOTS		
Remembering C1	Understanding C2	Applying C3	Analysis C4	Evaluation C5	Creating C6
Identifying	Matching	Applying	Selecting	Coordinating	Constructing
Describe	Abstracting	Implementing	Structuring	Judging	Designing
Recalling	Categorizing		Finding	Conclude	Creating
	Illustrating		Coherence Deconstructing		
Translating					

Based on the table above, most operational verb words used in each level in cognitive domain of bloom's taxonomy. While the word was not indicated by the presence of the problem in writing but even in an implied

way. In the LOTS category, recall is mostly used at the Remembering level. In Understanding mostly used the report. Then, in Applying most of the words used implementing. For HOTS, in this level most of operational verb words used in Analyze level were arranged. Then in Evaluating the level were conclude which is used. The last level is Creating, the word that is often used is create.

1. Midterm Assessment

Cognitive Level	No.SoaI	Amount
Remember (C1)	1,2,3,4,7,10,11,14,25,26,28,31,38,39,40,41,42,44	19
Understanding (C2)	5,9,12,17,18,24,33,35,36,45,49	13
Apply (C3)	8,16,23,29,30,34,43,50	5
Analyse (C4)	6,13,15,20,47,48	6
Evaluate (C5)	22,32,37	3
Create (C6)	46	1
	Total	47

Based on the table above, it is known that the 47 questions have various cognitive levels. Remembering level has a total of 19 items, then Understanding level has 13 items, Applying level has 5 items, Analysis level has 6 items, Evaluation level has 3 items and the last Creating level has one item. It can be seen from the table that the results of the question analysis have the largest number at the remembering level (C1) and are classified as questions in the LOTS category. Just like the research results from (As Sabiq & Ardiana, 2020) that the number of questions in the HOTS category is not the same as the distribution of the number of questions in the LOTS category which has a higher number. Next, the percentage value for the cognitive level in the midterm assessment items for the 2022/2023 academic year is obtained and can be classified in the table below:

No.	Thinking Process	Frequency	Percentage
1	Lower Order Thinking Skill (LOTS)	37	78,7%
2	High Order Thinking Skill (HOTS)	10	21,3%
Total		47	100%

Based on the results of the table above, it can be concluded that the midterm assessment questions for the 2022/2023 academic year at SMP N 4 Cilacap are included in the question LOTS category because the questions in the LOTS (C1-C3) category questions have a higher percentage. So, the Midterm Assessment items at SMP N 4 do not meet the criteria for HOTS category questions used in the Merdeka Curriculum and dominated by LOTS category. This shows that the midterm assessment items at SMP 4 N Cilacap still use LOTS items category and are dominated by questions at level C1 (Remembering) as assessments carried out on students. In LOTS items category, students can easily solve the problem or answer the question.

## 2. Semester Assessment

The results and percentages of the cognitive level of the 2022/2023 academic year midterm assessment items at SMP N 4 Cilacap are as shown in table 4.2 below:

Cognitive Level	No.SoaI	Amount
Remember (C1)	2,16,25,39	4
Understanding (C2)	13,14,15,17,18,19,20,22,23,24,26,27, 28,31,32,35,36,44,45	19
Apply (C3)	6,7,8,9,12,21,40,41,46,47	10
Analyse (C4)	1,3,4,5,10,30,33,42,43,50	10
Evaluate (C5)	11,29,34,37,38	5
Create (C6)	48,49	2
Total		50

Based on the table above, it is known that the 50 questions have various cognitive levels. Remembering level has a total of 4 questions, then

Understanding level has 19 questions, Applying level has 10 questions, Analysis level has 10 questions, Evaluation level has 5 questions, Creating level has 2 questions. Next, the percentage value for the cognitive stage in the mid-semester exam questions for the 2022/2023 academic year is obtained and can be classified in the table below:

No.	Thinking Process	Frequency	Percentage
1	Lower Order Thinking Skill (LOTS)	33	66%
2	High Order Thinking Skill (HOTS)	17	34%
Total		50	100%

Based on the results of the table above, it can be concluded that the semester assessment questions for the 2022/2023 academic year at SMP N 4 Cilacap are included in the LOTS category items because the questions in the LOTS category have a higher percentage. So, the semester assessment questions at SMP N 4 do not meet the criteria for HOTS category questions used in the Merdeka Curriculum. This shows that the semester assessment items at SMP 4 N Cilacap still use LOTS items category and are dominated by questions at level C2 (Understanding) as assessments carried out on students. In LOTS items category, students can easily solve the problem or answer the question.

#### D. Conclusion

In the research studied by this researcher, there were 2 types of summative assessment questions consisting of Midterm Assessment having 47 questions, and Semester Assessment having 50 questions. In total, there are 97 of summative assessment questions in the 2022/2023 academic year at SMP N 4 Cilacap. In the teaching and learning process, there is a classification of thinking processes as follows: in Midterm Assessment there are 37 or 78% questions with the LOTS category which has 3 levels,

C1 (Remembering) has 18 or 38% questions, C2 (Understanding) has 11 or 32% questions, C3 (Applying) has 8 or 17% questions. Meanwhile, in the HOTS category, there are only 10 or 21% of questions which are divided into 3 levels too, C4 (Analysis) has 6 or 13% of questions, C5 (Evaluation) has 3 or 6% of questions, C6 (Creating) only has 1 or 2% question. Apart from that, in the Semester Assessment items there are 33 or 66% of the questions in the LOTS category and have 3 levels, C1 (Remembering) has 4 or 8% of the questions, C2 (Understanding) has 19 or 38% of the questions, C3 (Applying) has 10 or 20 % question. Meanwhile, in the HOTS category, there are only 10 or 20% of questions which are also divided into 3 levels, C4 (Analysis) has 10 or 20% of questions, C5 (Evaluation) has 5 or 10% of questions, C6 (Creating) only has 2 or 4% question. The two types of summative assessment questions are dominated by LOTS and the levels that are widely used are at level C1 (Remembering) and also at level C2 (Understanding). So, the research conducted at SMP N 4 Cilacap had results that were incompatibility with the Merdeka Curriculum and also not with the statement that HOTS was one of the basic things included in the assessment in the Merdeka Curriculum and the percentages included. in this research there is no percentage limit that must be included in the Merdeka Curriculum assessment.

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