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Analysis of HOT Content in the Integrated Thematic Students' and Teachers' Handbook of the 2013 Curriculum

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Abstrak

Tujuan penelitian ini adalah mendeskripsikan konten HOT dalam aspek analisis, aspek evaluasi, dan aspek berkreasi/mencipta dalam buku pegangan siswa dan guru kurikulum 2013 tema kelima kelas tiga. Penelitian ini menggunakan pendekatan kualitatif dan metode analisis isi. Objek penelitian ini adalah konten HOT. Teknik pengumpulan data menggunakan dokumentasi dengan membaca dan mencatat secara cermat. Validitas menggunakan validitas semantik dan reliabilitas menggunakan stabilitas dan reprodusibilitas. Teknik analisis data terdiri dari unitizing, sampling, recording/coding, reduction, inferring, dan narrating. Temuan menunjukkan bahwa konten HOT sudah muncul, tetapi distribusinya tidak merata. Dalam aspek analisis, sebagian besar muncul melalui berbagai pertanyaan yang dapat merangsang pemikiran siswa. Dalam aspek evaluasi, sebagian besar muncul melalui kegiatan di akhir pelajaran. Dalam aspek mencipta, sebagian besar siswa diperintahkan untuk kreatif dalam memecahkan masalah. Hasil penelitian ini dapat digunakan sebagai informasi yang dapat digunakan guru dalam mempersiapkan pembelajaran dengan memfokuskan pada kemampuan berpikir tingkat tinggi yang dimiliki siswa.

***Kata kunci*:** *Analisis, HOT, Buku Tematik Kurikulum 2013*

Abstract

Higher-order thinking skills (HOTs) are becoming an important skill in today's era. Students' and teachers' handbook should have HOT content. This study aims to analyze HOT content in the analysis aspect, evaluation aspect, and creating aspect in the students' and teachers' handbook of the 2013 curriculum on the fifth theme of the third grade. This research used a qualitative approach and content analysis methods. The object was HOT content. Data collection techniques used documentation by reading and taking notes carefully. Validity used semantic validity and reliability used stability and reproducibility. Data analysis techniques consisted of unitizing, sampling, recording/coding, reducing, inferring, and narrating. The findings showed that HOT content has already appeared, but the distribution was not equal. The analysis aspect mostly appears through various questions that can stimulate students' thinking. In evaluation aspect, mostly appears through activities at the end of the lesson. In the creation aspect, most students are commanded to be creative to solve the problem. The result of this study can be used as information for teachers in preparing learning activities by focusing on students' higher-order thinking skills.

Keywords: Analysis, HOT, 2013 Curriculum Thematic Books

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1. INTRODUCTION

Higher-order thinking skills (HOTs) are becoming an important skill in today's era. HOTs are one of the skills that must be mastered by future generations to face future challenges. Students must be able to find out how to analyze, interpreting, reason, synthesize, evaluate and create a meaning according to their own (Fatyela et al., 2021; Sari et al., 2020). Students who have high-order thinking skills can make independent, logical, and right decisions, also create new knowledge in accordance with environmental conditions due to technology and information development. Students who learning with higher order thinking skills-based assessments get a better memory of an information (Budsankom et al., 2015; Jensen et al., 2014). Students who have HOT skills are able to face various problems and will help them in preparing themselves to answer challenges in the future. In addition, high-order

thinking skills are needed by students in competing and facing challenges because they can assist in making the right, logical, and careful decisions, and can consider things from various points of view (Alrawili et al., 2020; Lestari et al., 2020). Higher order thinking skills can be used to predict the success of students and students who have this ability are expected to meet success in further studies. Therefore, we need an education system that includes a curriculum that pays attention to higher-order thinking skills.

The results of Trends in International Mathematics and Science Study (TIMSS) in 2015 for 4th grade elementary school students showed that Indonesia was ranked 44 of 49 countries that were also the target of the study (Chamisah, 2017; Hadi & Novaliyosi, 2019). In addition, PISA (Program for International Student Assessment) results showed that Indonesia is ranked 73 of 78 countries studied (Dinni, 2018; Hidayah et al., 2021; Kusuma et al., 2017). Based on these results, it can be said that the higher order thinking skills of Indonesian students are still lacking. They are not familiar with problems that require critical and high-level thinking skills. Students are still used to various things that are still general, so the development of the thinking processes is relatively slow when compared to other countries. The 2013 curriculum in Indonesia was developed to answer these challenges. This curriculum aims to improve the quality of education in Indonesia. Improving the quality of education is important to do because it has a big impact on creating a generation that is ready to answer various challenges in the future, compete, and have the quality of international education standards. The implementation of the curriculum can run optimally if all components can synergize.

However, the concept changes between the 2013 curriculum and the previous curriculum made teacher practice and study it first because they could not immediately understand and apply the concepts from the 2013 curriculum. The results of the study on teacher difficulties in implementing 2013 curriculum learning using integrative thematic showed that 55.6% found it difficult to conduct attitude assessments, 53.8% felt difficult in preparing lesson plans and providing learning media, and 51.1% felt difficult in integrating themes between content (Nuraini & Abidin, 2020; Sabri, 2017). Previous research has also shown that HOTs-based learning in the 2013 curriculum has not been achieved optimally (Pratiwi & Mustadi, 2021). In addition, a study on evaluating curriculum implementation in Magelang Regency showed that teachers' understanding of the 2013 curriculum reached 62.2%, but the implementation of thematic learning carried out had reached 90% (Noviatmi, 2015). It shows that teachers have been able to implement thematic learning in accordance with the 2013 curriculum even their understanding is still lacking.

Textbooks are one of the most widely used learning resources in carrying out learning activities. Textbooks in schools have been selected for the content and materials in them (Ho & Hsu, 2011; Surtikanti et al., 2020). The learning materials and activities contained in the textbooks can make it easier for teachers to convey the material so that the learning process can run effectively and efficiently. In addition, textbooks also make it easier for students to take part in learning because they can used it at home with parental guidance or independently. The 2013 curriculum handbook has its own characteristics that are different from other books. This difference looks so significant because the 2013 curriculum used an integrative thematic so they must combine various subjects that become a theme. This book was made by the government and used as a reference for learning in schools. One of the goals of education is to create superior human who can think critically. Management in learning activities must focus on increasing HOT and adapted to the current situation in society (Arifin & Retnawati, 2017; Budsankom et al., 2015; Oktiningrum & Wardhani, 2020). It means that students' and teachers' 2013 curriculum handbook must have HOT content that can train students to think at higher levels. The activity scenarios in this book use a scientific approach that can train students to think scientifically and the material can help students to

practice creatively and innovatively. Creative and critical thinking is part of the higher-order thinking process (Tanujaya et al., 2017; Yen & Halili, 2015).

Students' and teachers' handbook should have HOT content in them. This is because the book will be a reference book in carrying out learning activities. Teachers must be able to understand and prepare in advance the material and content that will be given to students. Teachers can map out HOT aspects that will be included in learning so that students' higher-order thinking skills can develop optimally. This is because an effective teacher is a teacher who has systematic advance preparation in carrying out learning. If the teacher's lesson plans are ready and prepared, the learning carried out is also more effective. By mapping thinking skills, it can help teachers in designing learning content and focusing on developing students' higher-order thinking (Abosalem, 2015; Hutchinson et al., 2002). The use of textbooks in learning has a significant effect on student learning outcomes. By using textbooks, students become more fluent, happy, and active in learning (Hidayat et al., 2019; Rostika, 2016). In addition, the use of contextual-based textbooks can increase student activity. Textbooks can help students to solve various problems that exist and it can improve thinking skills, activeness, and solving a problem (Haryanto & Arty, 2019; Puspita et al., 2016). Even so, in previous studies, there were still deficiencies in the 2013 curriculum handbook. So there is a need for a deeper study related to this.

Based on observations that have been carried out at the Rejondani Prambanan State Elementary School on October 12, 15, and 19, 2021, grade III students have difficulty in completing assignments and questions that have a high level of thinking content, even though the implementation of learning activities carried out by teachers has referred to the 2013 curriculum handling book. The learning activities carried out by the teacher have followed the book of memorization which is used as a reference. However, due to the absence of careful preparation, especially information about mapping HOT content, teachers have become less focused and students have difficulty in understanding the learning provided, especially those involving higher-order thinking skills. They find it difficult to analyze the messages and content that are in the readings they have read. Students also feel unaccustomed to assessing an event or work they encounter. The creativity of students is also low, this is shown by the results of their work which is still imitating exactly the same as the examples that have been given.

Based on the previous description, it can be said that HOT content in students' and teachers' handbook needs to analyze. This is because the handbook becomes a reference in implementing learning in the 2013 curriculum. In order for students' HOT abilities to develop optimally, the teacher must have prior information about the HOT content in the reference book in order to have good preparation and focus on developing HOT. The textbooks selected for analyze are students' and teachers' handbook of 2013 curriculum on the fifth theme "Weather" of the third grade. It is because the material in this theme is accordance with the current situation of the environment. This theme can help student to solve a problem about the weather, so they can make an action and applied in their life. So the purpose of this study is to analyze the content of Higher Order Thinking on aspects of analysis, evaluation, and creation in the textbook of student and teacher handbooks of the 2013 curriculum grade III weather theme.

2. METHODS

This study used qualitative approach and content analysis methods. The purpose of this study is to describe HOT content in analysis aspect, HOT content in evaluation aspect, and HOT content in creating aspect in the students' and teachers' handbook of 2013 curriculum on the fifth theme "weather" of the third grade.

The research started by making a literature review from several primary sources and develops them to a theoretical basis to make a document analysis sheet and validated by experts. Next step is collecting data that use documentation by reading and taking notes carefully about HOT content in the books. This documentation is carried out by researchers with the knowledge and critically of researchers on finding and collecting the data under the research problem. Texts and pictures in the books that have HOT content are recorded in the instrument in the order it found and what lesson. After that, a sample of the content is recorded in the students and teachers book findings in the instrument and given page information. The findings interpreted according to the researcher's understanding of the HOT concept. After that, the researcher's describes the interpretation and finally narrated it by providing relevant sources.

Data collection techniques used documentation by reading and taking notes carefully. The research instrument is the researcher himself with the help of content analysis sheets for each aspect to be more focused with the indicator and has been validated by experts. The content in the students' and teachers' handbook is noted, displayed, and given page descriptions, then the content is interpreted, and finally described (Anderson et al., 2001). The indicator that used in this research is show in Table 1.

Tabel 1. Indicators of HOT Aspects

Aspect	Indicator
Analyze	1. Differentiating (the process of selecting some parts of the entire structure that are related to their importance or relevance) 2. Organizing (the process of determining how to combine or assemble various pieces of important information that have been obtained) 3. Attributing (the activity of determining the opinion, point of view, purpose, and value or purpose behind the information)
Evaluate	1. Checking (the process to see and detect whether there is an error or something inconsistent in a process or product) 2. Critiquing (the process that involves an assessment of a product or process based on certain criteria)
Create	1. Generating (determine alternative hypotheses to a problem with certain criteria) 2. Planning (make plans using various strategies or methods and turn them into action plans or activities to solve a problem) 3. Producing (carry out a plan in solving a problem with certain criteria)

Data analysis through six stage. First is unitizing (collecting students' and teachers' handbook of 2013 curriculum on the fifth theme of the third grade), second is sampling (focus on the HOT content in the students' and teachers' handbook of 2013 curriculum on the fifth theme of the third grade), third is recording/coding (recording all text and images about HOT content, so that readers can get a narrative explanation or supporting images about the units that have been found), fourth is reducing (carried out simultaneously while analyzing the data by deleting information or data that is not relevant to the aspects that are the problems in this research), fifth is inferring (grouping the results of the reduction that has been done so that conclusions can be made from the results of the analysis that has been done), and sixth is narrating (decision making based on the results of existing research by reviewing the results of the analysis with various relevant sources).

This research used semantic validity to see the suitability between text analysis which is a form of HOT in the book, while the context is a HOT process. Reliability used stability and reproducibility. Stability conducted by repeating 3 times in observing the data sources in

order to get a consistent understanding of the aspects. Reproducibility conducted by discussion and confirmation with experts.

3. RESULTS AND DISCUSSION

Results

Analysis Aspect

This aspect includes three indicators consist of differentiating, organizing, and attributing. The following table compares the indicators in each sub-theme. HOT content in analysis aspect is show in Table 2.

Tabel 2. HOT Content in Analysis Aspect

Indicator	Subt-theme 1						Subt-theme 2						Subt-theme 3						Subt-theme 4					
	Lesson						Lesson						Lesson						Lesson					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Differentiating	1	1	1	1	1	-	2	2	1	3	2	1	1	-	-	-	-	-	1	3	-	-	1	1
Organizing	1	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	2	1	-	-	-	-	-	-
Attributing	5	2	1	2	1	2	2	1	2	2	1	2	2	1	2	2	-	1	2	1	1	2	-	-

Based on Table 2, it found that not all indicators of analysis aspects appear in every lesson. Attributing is the highest indicator with 37 times, differentiating with 23 times, and organizing with 7 times. Differentiating indicators are in every sub-themes and found in various activities in teachers' and students' books. Here's an example of differentiating indicator in the book as show in Figure 1.

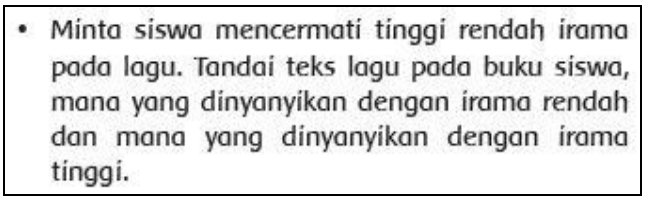
• Minta siswa mencermati tinggi rendah irama pada lagu. Tandai teks lagu pada buku siswa, mana yang dinyanyikan dengan irama rendah dan mana yang dinyanyikan dengan irama tinggi.

Figure 1. Example of Differentiating Indicator in Analysis Aspect

Based on Figure 1, students are asked to mark the lyric of the song that has a low rhythm and a high rhythm. Another example are students are commanded to perform sports movements and differentiating the strongest right or left foot support, differentiating the rhythm pattern of a song and mark it if it has the same rhythm, differentiating the shape of the letters that written in the air then say the word that starts with the letter, answer the questions about the difference between today's and yesterday's weather, the difference between activities carried out in collaboration and independently, the difference between working in groups and independently, the difference between larger and smaller pieces of melon, differentiating clothes, food and drink during rainy weather. The differentiating activity in this book is in accordance with the opinion of, differentiating is the process of grouping various parts of the entire structure based on their importance or relevance.

Organizing indicators are in sub-themes 1 and 3, while in sub-themes 2 and 4 did not found any organizing indicators in students' and teachers' book. Here's an example of organizing indicator in the book as show in Figure 2.


Amati cuaca selama lima hari. Lengkapi tabel di bawah ini. Gunakan simbol cuaca.

Waktu	Senin	Selasa	Rabu	Kamis	Jumat
Siang					
Malam					

Cuaca apa yang sering terjadi di daerahmu lima hari ini .....

Figure 2. Example of Organizing Indicator in Analysis Aspect

Based on Figure 2, students are commanded to record what weather has happened in a few days using a table and conclude it. Another example are students are commanded to make a mind map in points and then summarize it, sort random pictures about the process of rain based on the information, complete the conversations text based on the words that have been determined, and some appear in learning objectives. This activity is in accordance with the opinion of, organizing is determining how to assemble various important pieces of information that have been obtained. This process involves a process of structurally organizing and determining how the various parts fit into the overall structure.

Attributing indicators are in every sub-themes and found in various activities in students' and teachers' book. Here's an example of attributing indicator in the book as show in Figure 3.

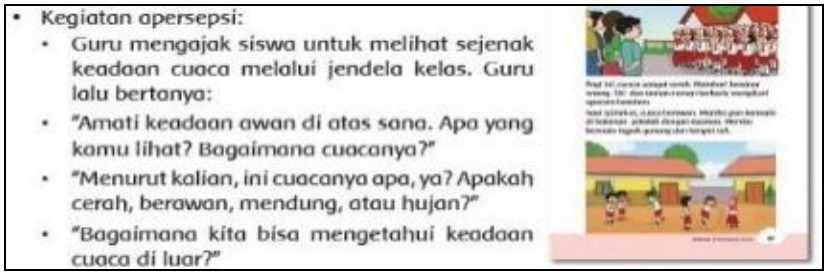
- Kegiatan apersepsi:
  - Guru mengajak siswa untuk melihat sejenak keadaan cuaca melalui jendela kelas. Guru lalu bertanya:
  - "Amati keadaan awan di atas sana. Apa yang kamu lihat? Bagaimana cuacanya?"
  - "Menurut kalian, ini cuacanya apa, ya? Apakah cerah, berawan, mendung, atau hujan?"
  - "Bagaimana kita bisa mengetahui keadaan cuaca di luar?"

Figure 3. Example of Attributing Indicator in Analysis Aspect

Based on Figure 3, students are commanded to answer various questions given by the teacher related to outside. Another example are students are commanded to looking for conclusions from various questions related to the weather, conclude the experimental activities and learning that have been carried out, argues about his feeling of working in groups, the benefits, and importance of being united in diversity. This activity is in accordance with the opinion of, attribution can occur when students are able to determine opinions, points of view, goals or values behind communication.

Evaluation Aspect

This aspect includes two indicators consist of checking and critiquing. The compares the indicators in each sub-theme is show in Table 3.

Tabel 3. HOT Content in Evaluation Aspect

Indicator	Subt-Theme 1						Subt-Theme 2						Subt-Theme 3						Subt-Theme 4					
	Lesson						Lesson						Lesson						Lesson					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Checking	1	1	1	1	1	2	3	2	2	1	2	2	1	2	1	1	2	1	4	1	1	2	2	1
Critiquing	-	-	-	-	-	1	1	1	1	1	3	1	-	-	-	-	-	-	1	1	1	1	2	1

Based on Table 3, it found that not all indicators of evaluation aspects appear in every lesson. Checking is the highest indicator with 38 times, while critiquing with 7 times. Checking indicators are in every sub-themes and found in various activities in teacher and student books. Here's an example of checking indicator in the book as show in Figure 4.


• Berdasarkan arahan dari guru, siswa membaca artikel tersebut bersama kelompok masing-masing untuk mengetahui apakah perkiraan mereka tentang isi artikel benar.

Figure 4. Example of Checking Indicator in Evaluation Aspect

Based on Figure 4, students are commanded to checking their approximate answers by reading the article. Another example are students are commanded to checking the correct answer they wrote, checking opinions of other group, confirmation about information that has been told, evaluating about the activities, reflection about the lesson, checking their experience, and checking the weather by looking outside. This is in accordance with the opinion of, checking is a process to see and detect whether there is an error or something inconsistent in a process or product, and the checking process occurs when students test the suitability between various previous statements and not.

Critiquing indicators are in sub-themes 1, 2, and 4, while in sub-theme 3 did not found any critiquing indicators in students' and teacher's book. Here's an example of critiquing indicator in the book as show in Figure 5.

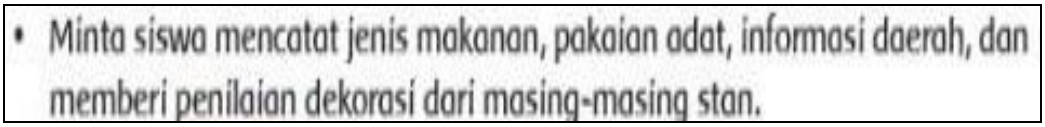
• Minta siswa mencatat jenis makanan, pakaian adat, informasi daerah, dan memberi penilaian dekorasi dari masing-masing stan.

Figure 5. Example of Critiquing Indicator in Evaluation Aspect

Based on Figure 5, students are commanded to give opinions about stand in exhibition. Another example are students are commanded to brain storming about information that has been told, friends' observation and presentation, and giving opinion and reason about lesson today. This activity is in accordance with the opinion of, critiquing is a process that involves an assessment of a product or process based on certain criteria, and this activities require students to look for various characteristics, both negative and positive, then make a decision based on the characteristics that have been obtained.

Creating Aspect

This aspect includes three indicators consist of generating, planning, and producing. comparation the indicators in each sub-theme is show in Table 4.

Tabel 4. HOT Content in Creating Aspect

Indicator	Subt-theme 1						Subt-theme 2						Subt-theme 3						Subt-theme 4					
	Lesson						Lesson						Lesson						Lesson					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Generating	-	-	-	-	-	-	-	-	-	1	-	-	2	2	1	1	-	1	1	1	-	-	1	-
Planning	1	1	1	1	1	2	1	2	1	2	2	2	2	2	1	3	1	3	2	1	3	1	1	-
Producing	1	2	1	2	2	3	2	2	2	4	3	3	3	2	2	5	2	4	4	2	4	2	2	2

Based on Table 4, it found that not all indicators of creating aspects appear in every lesson. Producing is the highest indicator with 61 times, planning with 37 times, and generating with 11 times.

Generating indicators are in sub-themes 2, 3, and 4, while in sub-theme 1 did not found any generating indicators in students' and teacher's book. Here's an example of generating indicator in the book as show in Figure 6.

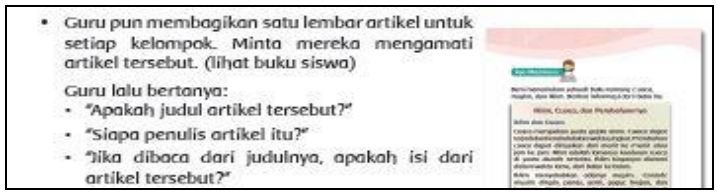

Figure 6. Example of Generating Indicator in Creating Aspect

Based on Figure 6, students are commanded to generating content about the article. Another example are working in group and discussing about some problems, generating mind map using 5W+1H formula, generating list of questions. This activity is in accordance with the opinion of, that generating is the stage for students to determine alternative hypotheses to a problem with certain criteria. When this process goes beyond the students' initial knowledge, it will form divergent thinking and create creative thinking with various alternative answers.

Planning indicators are in every sub-themes and found in various activities in students' and teacher's books. Here's an example of planning indicator in the book as show in Figure 7.

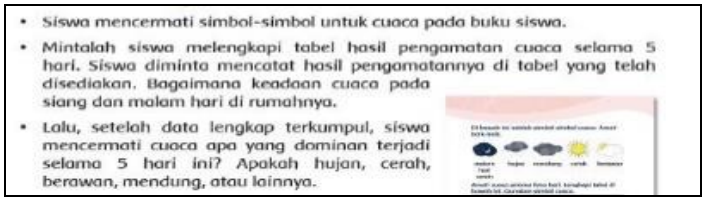

Figure 7. Example of Planning Indicator in Creating Aspect

Based on Figure 7, students are commanded to planning observations about the weather in a few days. Another example are planning and discussing activities to solve some problems, planning a simple committee by dividing task fairly, planning a schedule, planning observations in a few days, planning shortcut to cut some melon into equal parts, listing some questions for the conversation. This activity is in accordance with the opinion of, planning is the stage to make plans using various strategies or methods and turn them into action plans or activities in solving problems.

Producing indicators are in every sub-themes, lessons, and found in various activities in teacher and student books. Here's an example of producing indicator in the book as show Figure 8.

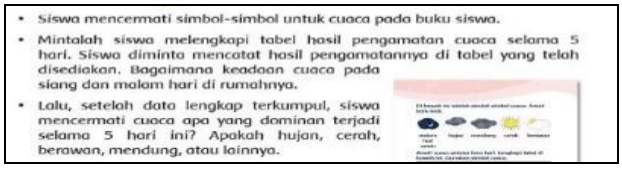

Figure 8. Example of Producing Indicator in Creating Aspect

Based on Figure 8, students are commanded to reporting about their observation in a few days. Another example are students are commanded make a story about weather, make a table of committee, record and make a list of visiting in exhibition, make a story about their experience when rainy day and their feeling, do role playing activities, telling about what they found in observation, telling information about the article, writing their experience about united in diversity, make a decorative motif, make a mind map and summarize it, make funding raising posters for disaster victims, write about the process of rain with their words, presenting their discussion result, making props with their creation. This activity is in accordance with the opinion of, producing is a stage for students to implementing a plan in solving problems with certain criteria.

Discussion

Analysis Aspect

In the analysis aspects and the three indicators that have been described. The HOT content in this book appears and spreads out in various sub-themes and lessons. However, the distribution of this analysis aspect is not equal because not all sub-themes learning have HOT content in the analysis aspect.

Often encountered at the beginning of learning, the teacher gives various questions that contain analysis aspects. This is also in accordance with the opinion that state providing higher-order thinking questions that can encourage discussion or debate is a way that can be used to improve higher-order thinking skills (Conklin, 2011). Predictive, analytical, evaluation, and generalization questions are the level of questions that play an important role in higher order thinking skills (Feng, 2014; Santoso et al., 2018). On the other hand, the questions given by the teacher will also determine which way the students think. Giving high-level questions requires students to manipulate what has been learned previously that goes beyond factual memory so that it requires higher-order thinking (Anderson et al., 2001; Zhao et al., 2016).

This book also provides opportunities for students to give their reasons for a phenomenon or event that occurs. This is also in accordance with the opinion of previous study the purpose of learning that improves higher-order thinking skills is to provide experience for students in analyzing or giving reasons and making decisions (Susanto & Retnawati, 2016). Giving students the opportunity to express their opinion and defend their views regarding a phenomenon can encourage them to express their thoughts, have the courage to discuss, and have confidence (Hajhosseiny, 2012; Maher, 2012). By changing learning practices that allow students to interact with each other, they can collaborate and explore their ideas critically and deeply.

In addition, in the learning process, students are also given the opportunity to break down various information or messages and look for meaning in it. This is also in accordance with the opinion with previous study state the analysis process involves a detailed examination of information in order to find the meaning in it (Wilujeng, 2018). The ability to process this information will affect how well they do each task. The ability to process information is needed by all students because it can help them understand the material in learning. This ability needs to be assisted with literacy skills so that it can be useful in helping individuals in solving various problems (Lucassen et al., 2013; Murti & Winoto, 2018).

Evaluation Aspect

In the evaluation aspect as well as the two indicators that have been described. The HOT content in this book appears and spreads out in various sub-themes and lessons.

However, the distribution of this evaluation aspect is not equal because not all sub-themes and learning also have HOT content in the evaluation aspect.

Often found at the end of the lesson, the teacher gives various questions that contain evaluation aspects for students by asking them to answer questions about activities that are liked, easy, difficult, and express their reasons for answering that way. They are given a place to evaluate themselves against the learning. In this way, students can begin to learn how to evaluate through the surrounding environment (Ichsan et al., 2019; Kärner & Kögler, 2016). Students are also given a stimulus so that they can give an assessment of something and give each other opinions. In this case, the students' and teachers' handbooks have provided opportunities for students to provide an assessment of an event that has occurred or an experience they have done and then look for solutions to the events or problems they encounter. This is in accordance with the opinion of previous study state aspect of higher order thinking is an assessment that involves an analysis of information to determine problems, evaluate them, and create solutions that can be used to overcome them (Kamin et al., 2015). Criticisms, suggestions, and reports are some of the things that can be created to show the evaluation process. Students should be encouraged to give their opinion about what they read, analyze the material, make creative ideas, evaluate, and then connect their experiences with existing information (Assaly & Smadi, 2015; Johansson, 2020).

In addition, this is also in line with opinion state the cognitive process of evaluation is taking action to provide an assessment as a reference in making decisions from the results of the assessment (Damyanov & Tsankov, 2018). Providing an assessment can prevent rote practice and can instill a critical analysis approach and problem solving between students and teachers, as well as improve learning. By giving students the opportunity to evaluate, they can criticize their own work and then improve it (Chandio et al., 2016; Marley, 2014).

Creating Aspect

In the creating aspects and the three indicators that have been described. The HOT content in this book appears and spreads out in various sub-themes and lessons. Many indicators are found contained in the learning objectives. This is in accordance with the opinion of including learning objectives is one way that can stimulate students in developing higher thinking skills (Limbach & Waugh, 2010). Well-written learning objectives can encourage students to improve their thinking to a higher level. Setting goals can also keep students focused and can provide clear directions for students to achieve the desired results. In addition, it is also useful for teachers in developing appropriate teaching materials and learning activities that can be used in the classroom (Dotson, 2016; Idowu et al., 2014).

The contents in this book contain producing indicators that can provide a stimulus for students to be creative or create a product that can be used to answer or solve a problem. The content in this book provides opportunities for students to be creative or create a new idea or create something to answer an existing problem. Students decide to use higher order thinking skills, they must be able to create new ideas, make predictions, and be able to solve problems. Students can build self-confidence, ability and creative thinking, as well as curiosity through creative interactions between teachers and students, as well as the applicable curriculum (Ball & Garton, 2005; Hatamleh, 2015).

This book also provides assistance for students to be able to solve the problems they are facing. This assistance can be in the form of an example of making a report or a product that they will create to answer problems and they can use as a reference. This is in accordance with the opinion of previous study, this aspect of creating is a process to produce something new or can also adapt something that already exists in answering problems systematically (Wilujeng, 2018).

Based on the description and analysis of the data above, it can be said that of the three aspects of HOT contained in the book can be sorted from the most aspect is creation, analysis, and finally evaluate. In addition, some can also find that HOT are a series of scientific processes to answer the problems they are facing. By providing a place for students to analyze first about the problems to be faced, then they evaluate these problems, and finally create solutions to answer these problems. This is in accordance with the opinion of previous study state that the scientific process is a way where high-level thinking skills include analysis, synthesis, and evaluation applied by students in undergoing the process (Afandi et al., 2019). Students no longer only remember or understand, but also how to use their abilities in combining what has been remembered or understood to be used in analyzing, evaluating, and creating (Ahmad et al., 2018; Feronica et al., 2021). HOT activity can be started by asking questions, problem stories, and real conditions in the student's environment that require them to use their thinking skills in dealing with this. Thinking exercises are a common part that must be included in all subjects.

In measuring higher order thinking skills, it can be done by using various questions or questions in which there are activities to analyze, evaluate, and create conceptual, procedural, or metacognitive knowledge. High-level questions will not only encourage students to carry out HOT processes, but can also motivate them to dialogue and discuss so that collaboration emerges (Nofrion & Wijayanto, 2018). But higher-order thinking processes need more than just questions that contain HOT, but students must also be taught how to make a thought visible (Mohamad, 2015). This means that familiarizing students with HOT activities is important to help them adjust, solve problems, or make decisions (Retnawati et al., 2018). These higher order thinking skills are certainly not fixated on the 2013 curriculum alone. However, the development of the curriculum in the coming era, including the merdeka curriculum in 2022 which has currently been implemented in several schools in Indonesia.

In order for students' HOTS to develop optimally, a good teacher must plan and map out in advance what they will teach their students. This is also in accordance with the opinion of previous study state that an effective teacher is a teacher who has advance preparation and systematic learning (Hutchinson et al., 2002). In addition, teachers must also be better able to plan their learning that relate to the skills needed in the 21st century, especially HOT skills (Abosalem, 2015; Pratiwi & Mustadi, 2021). By mapping these thinking skills, it can help teachers to design subject content by focusing and building students' competence in HOT. In addition, teachers must also continue to upgrade their capacity to prepare for HOTs-based learning and assessment in their classrooms more optimally (Astutik & Roesminingsih, 2021; Mahanal, 2019).

4. CONCLUSION

HOT content contained in the book, but the distribution is not equal. The most dominant of indicators in the analysis aspect is attributing, differentiating, and organizing. In this aspect, most appears through various questions that can stimulate students' thinking. The most dominant of indicators in the evaluation aspect is checking and then critiquing. In this aspect, mostly appears through activities at the end of the lesson by re-examining or reflection. Meanwhile, the most dominant in the create aspect is producing, planning, and generating. In this aspect, most students are asked to create a product or be creative to answer a problem. Higher order thinking skills are a series of processes that are passed to answer a problem. This process can be started by giving a question, problem, or even a phenomenon in the real world which then requires students to analyze, evaluate, and then create solutions to solve the problem. Mapping thinking skills can help teachers to focus on developing students' competence in higher order thinking.

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