

# High Order Thinking Skills (HOTS) Analysis of Grade VIII Junior High School Students on the Subject of Preserving My Nation's Culture

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## ABSTRACT

**Objective:** This study aims to analyze the higher-order thinking skills (HOTS) of students of State Junior High School 15 Surabaya. in understanding and applying the material "Preserving My Nation's Culture" in the Pancasila Education subject. The main focus of this study is to evaluate the extent to which students can analyze, evaluate, and create solutions in the context of preserving local and national culture.

**Method:** This research uses a descriptive qualitative approach with data collection methods through classroom observations, interviews with teachers and students, and document analysis in the form of worksheets and student assignments. Data analysis techniques are carried out by data reduction, data presentation, and drawing conclusions. **Result:** The results of the study show that the majority of students are still at a low level of thinking (LOTS), with a tendency to only be able to mention forms of culture that need to be preserved without being able to link the importance of such preservation to national identity and cultural sustainability. Only a small number of students are able to analyze cultural problems in their surroundings and design creative solutions, such as digital culture campaigns or community projects. The contributing factors include a learning approach that is not yet contextual, minimal use of local culture-based media, and a lack of teacher training in designing HOTS-based learning.

**Novelty:** This study lies in its focus on the integration of HOTS skills in cultural themes that are contextual and relevant to students' daily lives. In addition, this study offers a local cultural project-based learning model that can be replicated to strengthen character and love for the nation's cultural heritage.

## INTRODUCTION

Currently, reforms in the world of education are taking place in various countries, including Indonesia. The overhaul occurred in the evaluation system which led to the assumption that learning, especially Pancasila Education learning, should not only be oriented towards memorization skills and constitutional knowledge, but can be more focused on developing students' skills in solving new, non-routine problems so that Pancasila Education learning can achieve the totality of the dynamics of students' thinking processes.

Education is the main foundation in shaping students' character and love for the nation's culture. In the context of ever-growing globalization, the cultural identity of the Indonesian nation faces significant challenges. The influx of foreign cultures that enter without filters can erode the values of local wisdom that are the nation's identity. Therefore, it is important for the world of education to take an active role in instilling a spirit of cultural preservation in the younger generation, especially through a learning process that is not only informative but also encourages high-level thinking skills.

In the face of the era of globalization and rapid scientific development, education is required not only to develop basic knowledge but also to encourage students to acquire higher-order thinking skills (HOTS). These skills include the ability to analyze, evaluate, and create, which are the core of 21st century learning (Brookhart, 2010). The

Independent Curriculum currently implemented in Indonesia emphasizes the importance of strengthening critical and creative thinking competencies as part of the Pancasila Student Profile, as stated in the Regulation of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 12 of 2024 concerning the Curriculum at the Elementary and Secondary Education Levels.

Education has a strategic role in shaping national character and strengthening national identity. In the era of globalization marked by the rapid flow of information and culture, preserving national culture is a challenge that must be faced through holistic and contextual education. The material "Preserving My Nation's Culture" in the Pancasila Education subject at the Junior High School (SMP) level is one of the efforts to instill national values and love for local culture. Pancasila Education, as presented in the material "Preserving My Nation's Culture" in the Pancasila Education subject, is one of the important instruments in fostering cultural awareness among students. However, the delivery of this material is often still theoretical and less contextual. Many students are only able to memorize local cultural forms, without truly understanding the meaning and importance of maintaining the continuity of the culture in everyday life.

Based on the 1945 Constitution of the Republic of Indonesia, specifically Article 31 paragraph (3), it is mandated that the government endeavor to organize and implement a national education system that increases faith, piety, and noble morals in order to improve the life of the nation. As an implementation of this mandate, the government has stipulated Law Number 20 of 2003 concerning the National Education System, which emphasizes the importance of education rooted in the nation's cultural values.

The importance of creativity in the context of education has encouraged the development of challenging learning approaches, encouraging students to think more critically. However, in reality, many students experience obstacles in developing creative thinking skills in the school environment. One factor in students' critical thinking skills not developing and being low, according to Beghetto, (2019) is the lack of support from teachers and the school environment for creativity. Without adequate appreciation for creative efforts and a supportive environment, students tend to lose motivation to develop their creative thinking skills. An assessment system that is too oriented towards "right" or "wrong" answers can hinder the development of creative thinking skills. Students tend to avoid risks and experiment with new ideas for fear of negative judgment. This leads to inhibition of creativity in learning (Kim, 2011). Furthermore, Runco (2014) highlighted that the school curriculum generally tends to emphasize conceptual understanding rather than creativity. This results in a lack of creative stimulation given to students in the learning process. The lack of challenges to think outside the box can hinder the development of students' creative thinking skills.

Educators should develop high-level thinking skills to assess learning activities from students (Purnama et al., 2021). Students must have high-level thinking skills, commonly called HOTS (Yetri et al., 2019), because students must be able to think critically and creatively to formulate opinions and solve problems. This is necessary because teachers must be able to implement innovation and varied teaching methods that will enable students to achieve their learning goals in line with the desired outcomes (Darmadi, 2015).

High-level thinking skills are Higher Order Thinking Skills (HOTS) are skills that refer to mental processes that require students to manipulate data and ideas in unique ways that help them understand new meanings and implications (Suparman, 2021). High-level thinking requires critical and creative reasoning guided by normative principles with meaning for each individual case (Kemendikbud, 2018). Critical and creative thinking have beneficial benefits, which are mutually beneficial such as evaluating criteria, values, and emotions. High-level thinking or Higher Order Thinking Skills (HOTS) is an information gathering technique that is not only verbally accurate but also takes into account what is nearby. To be able to collect accurate information, an information gathering technique is needed that is integrative and involves analysis, synthesis, and other techniques. Which, so far triggers the emergence of creative and effective ideas (Ariyana et al., 2018).

Assessment in learning carried out by teachers is for information, combining specifics about student success among students and to understand the threshold of progress in terms of the success of the learning process organization strategy (Junindra et al., 2021). According to Shoheh & Ahmad, (2019), learning assessment is a process to determine how learning evaluation is carried out by a teacher intended to improve the quality of students in order to increase their capacity. For thinking skills in order to expand the field of education (Ariyana et al., 2018). Assessment is an important and related component of the current education system. Improvements in the quality of education can be seen from statements made by instructors (Yulyani et al., 2020). Of course, a good and unusual assessment system is needed. To help develop teacher teaching strategies, a good assessment system can provide information about the quality of the lessons taught (Amris & Desyandri, 2021). For students themselves, a good assessment system will be able to provide motivation to always improve their abilities (Arzfi et al., 2021). Assessment is the last step in the learning outcome assessment system after measurement. Information from the final measurement results is written and verified (Widiyanto, 2018). In education, the context of program educators must assess the subject matter so that students can improve their thinking skills.

This aligns with the statement by Thomas and Thorne (Hamidah, 2018), who explained that HOTS can be applied in the educational world to enhance students' skills and character. In the learning process, there is a difference between students who are more inclined to memorize and students who train their high-level thinking skills. By implementing HOTS type learning, students not only memorize information but also train high-level thinking skills, namely students' ability to analyze, evaluate and also create. Therefore, it is very important to train students' high-level thinking skills so that they not only remember but are also able to implement them in new problems.

Meanwhile, cultural preservation is a crucial issue in Pancasila Education (PP). As a multicultural nation, Indonesia faces major challenges in maintaining its national identity amidst the current of modernization that often erodes local cultural values. Therefore, Pancasila Education learning is expected to be able to instill national and cultural awareness in the younger generation through an approach that is not only informative but also reflective and transformative (Susanto, 2022). The integration of cultural preservation materials in Pancasila Education learning provides a great opportunity to

develop HOTS contextually, because students are faced with real situations that require critical and creative thinking.

However, empirical studies on the application of HOTS in the context of Pancasila Education, especially those that raise the issue of preserving national culture, are still very limited. Most previous studies have emphasized the application of HOTS in specific subjects or only measured students' general thinking skills without considering the socio-cultural context. In fact, HOTS can be developed more optimally through issues that are close to students' lives and have national relevance, such as the issue of preserving local culture.

This research is motivated by the urgent need to evaluate the extent of students' HOTS abilities in the material of preserving national culture. The researcher sees that so far, Pancasila Education learning still emphasizes low-level cognitive aspects, such as memorization and basic understanding, while aspects of analysis, synthesis, and creation have not been optimally developed. As a result, students do not yet have the ability to think critically and take real action in maintaining and preserving their local culture.

Factors causing low HOTS skills include learning approaches that are not yet contextual, minimal use of local culture-based media, and lack of teacher training in designing HOTS-based learning. Therefore, innovative and contextual learning strategies are needed to improve students' HOTS abilities in the material on preserving national culture.

Chen et al. (2020) showed that students often face difficulties in solving problems that require creative thinking in the context of reaction rates. They tend to be trapped in routine mindsets and have difficulty applying national cultural concepts creatively to overcome challenges in the era of globalization. The same thing also happened at SMPN 15 Surabaya. Based on the results of observations in the form of interviews with Pancasila Education teachers at SMPN 15 Surabaya, students often have difficulty understanding state concepts, especially the material on preserving the culture of my nation. Because this material explores more about students' thinking concepts to understand the meaning of culture, love culture, and learn and practice it in everyday life. Students have difficulty solving types of questions that differ from those taught by teachers because, in this era, cultural customs are often overlooked by society. The lack of students' ability to solve questions may occur because students are not used to being given questions.

This study aims to analyze the HOTS abilities of junior high school students in understanding and applying the material "Preserving My Nation's Culture" in the Pancasila Education subject. The main focus of this study is to evaluate the extent to which students can analyze, evaluate, and create solutions in the context of preserving local and national culture. This study is expected to contribute to the development of a more contextual and reflective Pancasila Education learning model to improve HOTS abilities in students. On the other hand, the results of this study can also be used for teachers and policymakers in designing curricula and teaching methods that emphasize strengthening national character through high-level thinking and support the implementation of national education policies that are oriented towards preserving national culture. Thus, students are not only spectators of the nation's cultural wealth, but also active actors in its preservation.

Although previous studies have discussed the importance of developing high-level thinking skills (HOTS) in learning, most of these studies focus on specific subjects such as mathematics and science, or on general cognitive aspects without considering the context of local values and culture. In the context of Pancasila Education (PP), HOTS studies are still relatively limited, especially those that directly link them to local cultural values as part of strengthening national character.

This study offers a unique contribution by integrating the analysis of students' creative thinking skills in solving HOTS problems based on the material of preserving the nation's culture. By adopting a contextual approach to the theme "Preserving My Nation's Culture", this study not only assesses students' cognitive aspects but also examines the extent to which they are able to think creatively, propose solutions, and reflect on local cultural issues within the framework of Pancasila Education.

Thus, this study not only provides an overview of the level of students' HOTS abilities, but also provides a reflection on how education can play an active role in preserving culture through a learning approach that fosters critical and national awareness.

## RESEARCH METHOD

The research method used by the researcher is a quantitative descriptive study. The study was conducted at SMP Negeri 15, Kenjeran, Surabaya City. Among the several schools in the Kenjeran District, this school has adopted an independent curriculum. In addition to describing the curriculum, it can also continue regarding the learning assessment used by teachers. The methodology used in collecting this study by participants is interviews and documentation. In this quantitative study, several participants used the instruments as the main instruments. The instruments used in this study were interviews and documents.

HOTS is a high-level, critical, logical, reflective and metacognitive creative thinking ability. According to (Saraswati & Agustika, 2020) the characteristics of HOTS questions are 1) the presence of stimulus to induce critical reasoning and conclusion making skills, 2) involving more than one thought to combine cognitive knowledge, 3) related to unfamiliar contexts, 4) related to real-world situations, 5) non-routine question forms. Thus, HOTS becomes a new problem and a non-routine question that requires a higher level of thinking to solve. The results of the study (Akbar et al., 2017) stated that students do not yet have the ability to solve questions that require high-level thinking. One of the reasons is that students are not used to solving questions at a high level or HOTS. As a result, students make many mistakes in solving HOTS-based questions. According to Harriman (2017), critical thinking is a process that tries to create new ideas. Critical thinking is a series of processes, including understanding problems, making guesses and hypotheses about problems, seeking answers, proposing evidence, and finally reporting the results. According to (Solso et al., 2008) Thinking is the process of realizing new mental representations through transformations involving complex interactions with mental attributes by including consideration, reasoning, depiction, logical problem solving, abstraction, concept formation, creativity and intelligence. Thinking is a mental

activity that requires brain work, and thinking also involves human feelings and will (Mursidik et al., 2015).

Student responses were assessed using a creative thinking rubric, which was developed based on indicators from creative thinking theory (Harriman, 2017; Solso et al., 2008), including:

**Table 1.** Creative Thinking Rubric

Aspect	Criteria	Maximum Score
Fluency	Completeness and accuracy of answers	4
Flexibility	Variations in approaches or strategies for solving problems	4
Originality	The uniqueness or novelty of the idea in responding with language and its own way	4
Elaboration	Ability to develop accurately and in detail	4
<b>Maximum Total Score</b>		<b>12</b>

This study aims to determine students' creative thinking skills in solving High Order Thinking Skills (HOTS) questions on the material of preserving the culture of my nation. The data source for this study consisted of students from class VIII of SMP Negeri 15 Surabaya, comprising 3 classes with a total of 100 students. The instruments in this study were the researcher as the main instrument, the Higher Order Thinking Skill (HOTS) test question sheet and interview guidelines. This study used data collection techniques, namely written tests and interviews. The data analysis technique employed in this study involved analyzing the test and interview results descriptively, encompassing data reduction, data presentation, and drawing conclusions. To test the validity of the data, this study used a triangulation technique, namely comparing the results of the test with the results of interviews with the subjects. The instrument used was based on the High Order Thinking Skills (HOTS) Test questions. The questions tested in this study amounted to 4 essay questions. This instrument is used to test students' cognitive abilities in solving High Order Thinking Skills (HOTS) Test questions on the theme "Preserving My Nation's Culture". To calculate the percentage of students' creative thinking skills, the following formula can be used:

$$\text{Value} = \frac{R}{SM} \times 100\%$$

Information:

N : Value to be searched for

R : Raw score obtained

SM : The ideal maximum score of the test in question

## RESULTS AND DISCUSSION

### Results

This study uses a qualitative descriptive approach with a focus on analyzing students' creative thinking abilities in solving Higher Order Thinking Skills (HOTS) questions. The data sources came from 100 eighth-grade students at SMP Negeri 15 Surabaya, consisting of three classes.

In this study, the sampling technique used was purposive sampling. This technique was chosen because the researcher deliberately selected subjects who were considered capable of providing relevant and in-depth data in line with the research objectives, namely students who had participated in learning using the Merdeka Curriculum approach and had been given HOTS questions by their teachers. The selection of classes was based on the availability of teachers and the school administration's readiness to support the research process, as well as student involvement in learning activities relevant to the material "Preserving My Nation's Culture."

By mentioning the purposive sampling technique, the researcher shows that the selection of subjects was not random but considered certain criteria relevant to the research focus, thereby enhancing the credibility and focus of the data obtained.

In this research data, the percentage of students' critical thinking skills can be analyzed based on the scoring guideline assessment rubric, and aspects of each indicator of critical thinking skills, so that the average percentage of critical thinking skills is obtained which can be seen in the table below:

**Table 2.** Average Percentage of Creative Thinking Skills

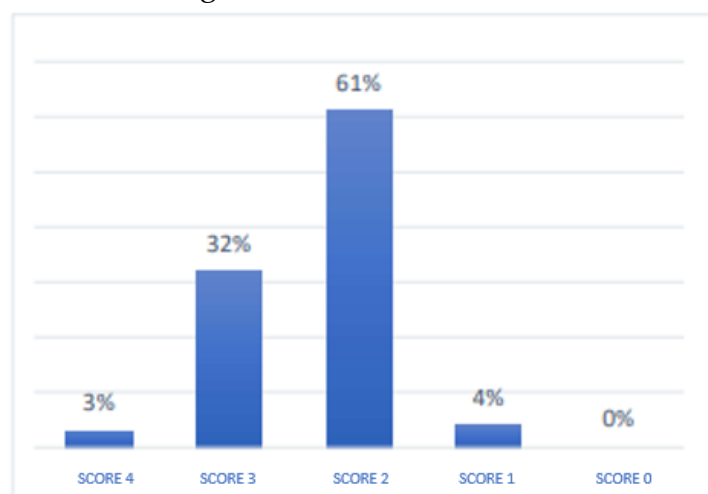
No	Creative Thinking Skills Indicators	Question item indicators	Students' Creative Thinking Achievement %
1	Fluency	Presented with a statement about the megengan tradition in Surabaya, students can explain the implementation of the megengan tradition	58.44%
2	Flexibility	Presented with a narrative about the role of students in maintaining the integrity of the Republic of Indonesia, students are able to analyze student behavior that can maintain the integrity of the Republic of Indonesia.	53.13%
3	Originality (Originality)	Presented with statements about culture in global society, students can examine the forms of cultural roles in global society.	69.69%
4	Elaboration (Elaboration)	Presented with infographics about Indonesian cultural preservation activities, students can analyze how to preserve Indonesian culture.	59.38%

The table above shows the average achievement of students' critical thinking skills in solving High Order Thinking Skills (HOTS) questions on the material of preserving my nation's culture. In the aspects of fluency, flexibility, originality, and elaboration, it reached 60.16%, so these four aspects are categorized as quite creative.

The results of this study indicate that students have reached the critical thinking stage through HOTS (Higher Order Thinking Skills) questions. This is because students can solve HOTS (Higher Order Thinking Skills) questions in detail and accurately. This is relevant to the results of student interviews, which showed that they were satisfied with the question model that used long stimuli. With long stimuli, students need more time to understand and analyze the meaning of the question. The use of standard and unfamiliar language also makes students unable to understand the meaning of the question. Because the questions they usually work on are not in this form, meaning the questions directly ask what, where, and who (remember). So, students do not need to analyze before solving the problems they face.

### *Creative Thinking Skills Fluency Aspect*

In Table 2, the achievement of students' critical thinking skills in the fluency aspect is 58.44%, which is included in the fairly critical category. Of the 58.44% of students, they can conclude things that happen by providing illustrations of the megengan tradition. Students who scored 4, only 3% answered completely and clearly, and the correct answer was that the megengan tradition is a Javanese tradition carried out before the month of Ramadan, with the aim of welcoming the arrival of the holy month and a form of gratitude and apologies and safety to God. This tradition is usually filled with joint prayers, tahlil, and sharing food, especially apem cakes, with the surrounding community. Megengan is also a means to strengthen ties between residents or families. Students who got a score of 3 only 32% answered the questions completely but the answers were not quite right. Students who scored 2 could answer only 61% of the questions correctly, and the explanations were not entirely accurate. Students who scored 1 could answer only 4% of the questions correctly, and the explanations were not entirely accurate. For more details, see Figure 1:

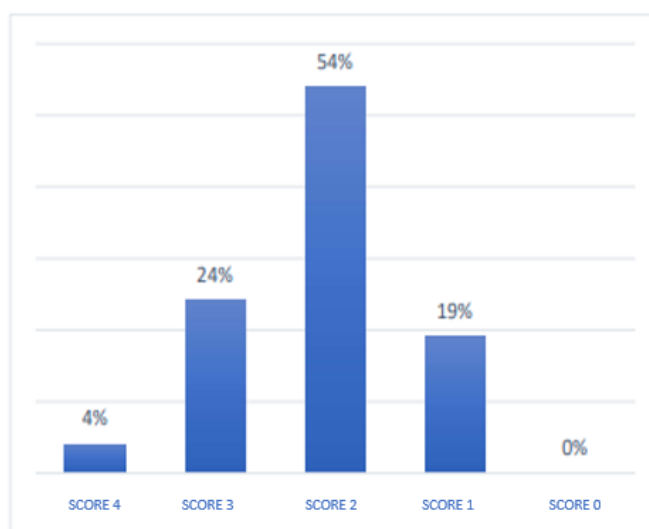


**Figure 1.** Percentage Score of Fluency Aspect

In the fluency aspect, students scored 58%, which is included in the fairly critical category. This shows that most students are able to produce several ideas or answers in solving HOTS questions, but not in optimal numbers. Students tend to only mention one or two ideas, without trying to explore other possibilities. This indicates that their fluency in thinking is still limited and needs to be improved through open and exploratory thinking exercises, such as brainstorming or group discussions.

### *Creative Thinking Skills Flexibility Aspect*

In Table 2, the achievement of students' creative thinking skills in the flexibility aspect is 53.13%, which is included in the fairly critical category. Of the 53.13% of students who can analyze student behavior that can maintain the integrity of the Republic of Indonesia. Only 4% of students who scored 4 gave varied answers with different perspectives and the correct answer is that student behavior that can maintain the integrity of the Unitary State of the Republic of Indonesia (NKRI) is reflected in an attitude of love for the homeland, tolerance, discipline, and responsibility. Students show love for the homeland by respecting national symbols such as the red and white flag and the national anthem, and are proud to use domestic products. They also maintain national unity by respecting differences in ethnicity, religion, race, and culture, and establishing cooperation and avoiding conflict in the school environment and society. In addition, students who obey the rules will obey school regulations and not be involved in negative behavior such as bullying, brawls, or drug abuse. Students can also maintain the integrity of the Republic of Indonesia by being active in various positive activities such as flag ceremonies, student organizations, social activities, and preserving local culture. No less important, students must study seriously as a form of responsibility to prepare themselves to become the next generation of the nation who are intelligent, have character, and are ready to build Indonesia in a better direction. With these behaviors, students play an important role in maintaining the unity and integrity of the Republic of Indonesia. Students who get a score of 3, only 24% can provide varied answers with different points of view and answers that are less precise. Students who receive a score of 2 can only provide varied answers in 54% of cases, but the answers given are correct. Students who only get a score of 1, only 19% cannot provide varied answers and the answers given are less precise. For more details, see Figure 2:

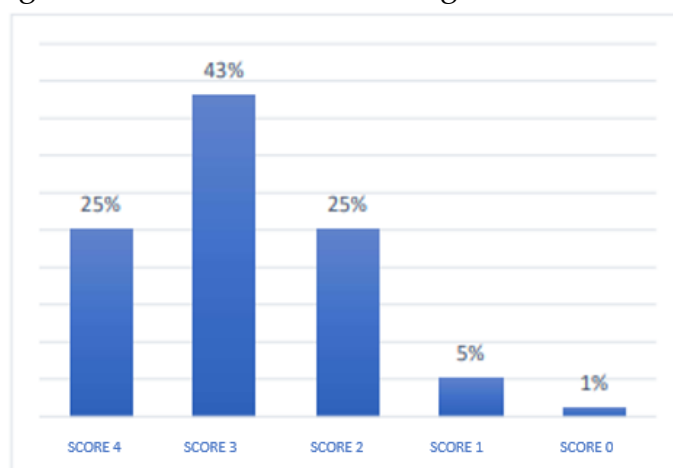


**Figure 2.** Flexibility Aspect Percentage Score

In the flexibility aspect, student achievement is 54%, also in the fairly critical category. This value indicates that students still lack variety in their problem-solving approaches. They tend to employ a uniform way of thinking or adhere to a single point of view. This could be because students are not used to changing their point of view or trying other alternatives in answering questions. To improve this aspect, teachers can provide stimulus through open questions or case studies that require various problem-solving approaches.

### *Creative Thinking Skills Originality Aspect*

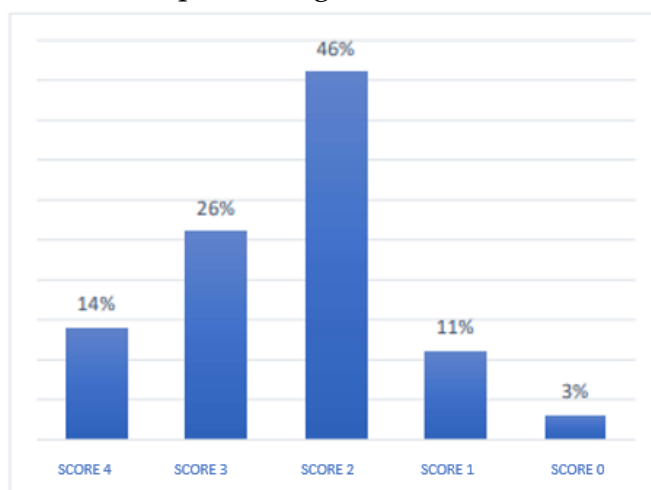
In Table 2, the achievement of students' creative thinking skills in the originality aspect is 69.69%, which is included in the good category. From 69.69% of students who can analyze the reaction order that occurs by providing an illustration of a statement about culture in a global society, students can examine the form of the role of culture in a global society. Students who get a score of 4, only 25% of students can answer questions in their own language and way and the answer is correct, namely Students can examine the role of culture in a global society by starting to understand that culture is not only a legacy of ancestors, but also has an important function in forming relations between nations. This process can be achieved by studying various forms of culture, both local and foreign, such as language, art, traditions, and social values that develop within a global society. Through classroom learning, group discussions, watching documentaries, participating in cultural exchanges, or utilizing digital sources and social media, students can see how culture becomes a means of communication, strengthens international cooperation, and becomes part of diplomacy and the creative economy. In addition, students can also analyze how local culture can adapt or be influenced by foreign cultures, as well as how to maintain their own cultural identity so that it is not eroded by globalization. In this way, students not only recognize the role of culture theoretically, but are also able to think critically and act wisely in dealing with cultural differences in the global era. Students who get a score of 3 only 43% of students can answer questions in their own language and way but the answers are not quite right, a score of 2 only 25% of students can answer questions not in their own language but the answers are not quite right, a score of 1 only 5% of students can answer questions not in their own language and way and the answers are not quite right, a score of 0 only 1% of students cannot answer the questions given. For more details, see Figure 3:



**Figure 3.** Originality Aspect Percentage Score

### ***Creative Thinking Skills Elaboration Aspect***

In Table 2, the achievement of students' critical thinking skills in the elaboration aspect is 59.38%, which is included in the fairly critical category. From 59.38%, analyzing the factors that occur from presented with a case study on preserving Ludruk culture, students can reason about how to preserve Ludruk culture. Students who scored 4, only 26% of students were able to answer questions in detail and the answers were correct. For example, by holding a mini Ludruk performance at school, documenting Ludruk stories in the form of creative videos, sharing them through social media, or creating collaborative projects between arts and culture and information technology lessons. They can also write contemporary-themed Ludruk scripts to make them more relevant to the younger generation. By studying the case study, students not only learn to appreciate local culture, but also develop a proactive, critical and responsible attitude in efforts to preserve the nation's cultural heritage. Students who scored 3, only 26% of students were able to answer questions in detail but the answers were not quite right, Students who scored 2, only 46% of students were unable to answer questions in detail but the answers were correct, Students who scored 1, only 11% of students were unable to answer questions in detail and the answers were not quite right, Students who scored 0 were 3% of students unable to answer the questions given. For more details, see Figure 4.



**Figure 4.** Percentage Score of Elaboration Aspect

For the elaboration aspect, students scored 59%, which is in the fairly critical category. This means that students are able to develop their ideas, but have not conveyed them in detail and comprehensively. Many students' answers are still general or lack detail in explaining their ideas. This shows the need for training in developing ideas systematically and argumentatively. Teachers can help students through the habit of writing short essays, making concept maps, or assignments that require more in-depth elaboration.

### **Discussion**

However, the other three aspects, namely fluency, flexibility, and elaboration, showed lower achievement. In the fluency aspect, some students still seemed to have difficulty in generating many ideas quickly and smoothly. In terms of flexibility, it was found that students were not yet fully able to present various approaches to solving a problem.

While in the elaboration aspect, students' ability to develop ideas in detail and depth was still limited; they tended to give short answers or not explain the idea completely.

Overall, these results indicate that although students have sufficient creativity potential, especially in generating original ideas, a learning approach that can hone fluency, flexibility, and the ability to develop ideas in more detail is still needed. The use of project-based learning methods, problem solving, and open exploration can be effective strategies to improve all aspects of students' creative thinking skills evenly.

The results of data analysis from the collection of essay questions show that the creative thinking ability of class VIII students of SMP Negeri 15 Surabaya as a whole is in the "quite creative" category with an average percentage of 60%. This value indicates that most students already have basic critical thinking skills, but still need more varied coaching and learning strategies to develop this potential to a higher level, such as the "good" or "very critical" categories.

In this study, creative thinking skills were analyzed through four main aspects, namely fluency (fluency in generating ideas), flexibility (ability to see a problem from various perspectives), originality (uniqueness and novelty of ideas), and elaboration (ability to develop and detail ideas in depth). Of the four aspects, the aspect of originality or uniqueness of ideas occupies the highest position in its achievement compared to other aspects. These results reflect that many students have demonstrated divergent thinking skills, namely the ability to think outside the general patterns or habits that are commonly used.

The high achievement in the aspect of originality demonstrates that students are able to present different, unique, and unconventional ideas in addressing the given problems. They show potential in creating original solutions and not just copying from common sources. This reflects strong divergent thinking skills, where students are able to think outside the box or common patterns that are often used. From the results of this study, students just copying or reproducing information from common sources, but being able to create innovative and authentic solutions. This condition shows that students' critical thinking potential is actually quite high, especially in terms of producing new solutions that have not been thought of by many others. This aspect of originality is an indication that a learning environment that supports free exploration and acceptance of various "unusual" ideas can be the main trigger for the growth of student creativity. Thus, teachers need to provide more space for students to express their opinions or ideas without being too tied to conventionally "correct" answers. However, the other three aspects, namely fluency, flexibility, and elaboration, showed relatively lower achievements.

Fluency (Fluency of Ideas): Many students still have difficulty in expressing more than one or two ideas in a limited time. This indicates that their ability to think quickly and generate various possibilities still requires training. The low aspect of fluency also shows that students are not used to practicing expressing many ideas spontaneously in learning situations.

Flexibility, in this aspect, students are not yet fully able to identify various possible approaches to solving a problem. They tend to be fixated on only one way of solving, which shows that their thinking process is still linear and not flexible enough. In fact, the ability to think flexibly is very important in everyday life which demands adaptation and innovation.

Elaboration (Elaboration of Ideas), the elaboration aspect or the ability to develop ideas in detail is still relatively low. Many students' answers tend to be short and do not explain their ideas thoroughly. They are not used to explaining an idea or solution in detail, so their creative potential is not fully reflected in the essay answers.

Some students have shown the ability to produce original ideas, but classroom learning still needs to be directed to improve the fluency, flexibility, and depth of their ideas. One solution that can be applied is the use of project-based learning approaches (PBL), problem-solving (PBL), and open exploration. These three approaches allow students to be actively, collaboratively, and reflectively involved in the learning process.

The use of diverse media, open challenges, and sufficient exploration time will help students get used to thinking in various directions and from different perspectives. In addition, teachers can also apply the scaffolding method, which is providing gradual guidance to build students' abilities in developing ideas, processing them into detailed ideas, and evaluating the quality of their own creativity.

In addition to contextual learning, the habit of self-reflection and peer assessment can also be the right strategy to improve students' metacognition. By reflecting on their work, students can understand the strengths and weaknesses of the thinking process they experience, and encourage them to try new, more creative ways.

Overall, the analysis results indicate that students' critical thinking skills fall into the "quite critical" category, with a primary strength in the originality aspect. However, other aspects such as fluency, flexibility, and elaboration still need to be improved through a learning approach that better supports the exploration of ideas, spontaneous practice, and in-depth development of ideas. With the support of the right teaching strategy, students' high-level thinking potential can be developed more evenly and sustainably.

## CONCLUSION

**Fundamentals finding:** Based on the results of the research that has been conducted on students' critical thinking skills in solving Higher Order Thinking Skills (HOTS) questions on the material Preserving My Nation's Culture at SMP Negeri 15 Surabaya, it can be concluded that in general students are in the fairly critical category. The average percentage of students' abilities reached 60%, with the highest achievement in the originality aspect of 70%, and the lowest achievement in the flexibility aspect of 53%. Other aspects, namely fluency and elaboration, each showed values of 58% and 59%, which are also in the fairly critical category. These findings suggest that students have a strong tendency to generate original ideas, but still require improvement in terms of the diversity of their thinking and the ability to develop ideas in detail and systematically.

**Implications:** This study underline the importance of implementing learning methods that can stimulate students' critical thinking skills, such as project-based learning, exploratory discussions, and routine critical-creative thinking exercises. Teachers have a central role in creating a challenging, open learning environment that encourages students to dare to express ideas and defend arguments based on information and values they believe in. Thus, the learning process not only hones cognitive aspects, but also integrates affective and psychomotor aspects, which ultimately shape the character of students who are reflective, tolerant, and resilient in dealing with non-routine problems.

**Limitations:** This study has several limitations. First, the research subjects were limited

to eighth grade students in one school, namely SMP Negeri 15 Surabaya. Second, the HOTS question instrument used only consisted of four essay questions that measured four indicators of creative thinking, namely fluency, flexibility, originality, and elaboration, so it did not cover other dimensions that are also important in critical thinking such as risk-taking or problem sensitivity. Third, the approach used was still descriptive quantitative, so the results of the study did not describe the causal relationship between critical thinking ability and other factors that influence it. **Future Research:** The direction of future research is suggested to expand the scope of subjects and research areas so that the results are more generalizable. Further research can also use a mixed methods approach to gain a more comprehensive understanding of the dynamics of students' critical thinking. In addition, it is also important to examine in more depth the influence of other variables such as teacher learning strategies, student learning motivation, and environmental support on the development of critical thinking skills. With the strengthening and development of these various aspects, it is hoped that education at the junior high school level can be more optimal in forming a creative, reflective, and adaptive generation to the challenges of the times.

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