

The Implementation of Scientific Learning Approach *Six Thinking Hats* Model to Enhance Students' Thematic Learning Quality for The 5th Grader of Elementary School

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ABSTRAK

Abstract: Implementation of scientific learning approach six thinking hats model to enhance students thematic learning quality for 5th grader of elementary school, this research aims to (1) describe the implementation of scientific approach STH (six thinking hats) model that can enhance thematic learning quality, (2) enhance the learning quality in "Environment is Our Friend" theme. This Classroom Action Research was conducted in two cycles. The subject of this research is A-class of 5th graders of Ngijo 3 Elementary School, Karangploso, Malang. The research result shows that implementation of STH model on thematic learning in 5th graders optimize the students' learning quality. Implementation of STH model can improve discussion process by hat activity that combined with 5M (observing, questioning, reasoning, practicing, concluding) ability, also the learning outcome including students' affective, cognitive, psychomotor ability.

Abstrak: Penerapan pendekatan pembelajaran saintifik model Six Thinking Hats untuk meningkatkan kualitas pembelajaran tematik siswa kelas V SD, penelitian ini bertujuan untuk (1) mendeskripsikan penerapan pendekatan saintifik model STH (six thinking hats) yang dapat meningkatkan kualitas pembelajaran tematik, (2) meningkatkan kualitas pembelajaran pada tema "Lingkungan Sahabat Kita". Penelitian model tindakan kelas ini dilakukan dua siklus. Subjek penelitian siswa kelas VA SDN Ngijo 03 Karangploso, Kabupaten Malang. Hasil penelitian menunjukkan bahwa penerapan model STH dalam pembelajaran tematik di kelas V dapat mengoptimalkan kualitas belajar siswa. Penerapan model STH dapat meningkatkan proses berdiskusi dengan aktivitas yang dipadukan dengan kemampuan 5M (mengamati, menanya, menalar, mencoba, menyimpulkan), serta hasil belajar meliputi kemampuan afektif, kognitif, dan psikomotor siswa.

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The curriculum in education is the determinant of the quality of the learning activities. In essence, the curriculum is the identity of education in schools that is used to direct all educational activities to achieve educational goals. The definition of curriculum is in accordance with Regulation no. 20 Year 2003 Article 1 point (19) which is a set of plans and arrangements concerning objectives, content, and instructional materials, as well as ways used as guidelines for the implementation of learning activities to achieve certain educational goals. Objectives in the education may include mastery of affective, cognitive, psychomotor, and working ability. For the purposes of achieving these objectives, there needs to be a fundamental change in the national education system. The changes made lead to the solution of several educational problems concerning the quality and outcomes of education and character building that has been analyzed by various parties as well as efforts to improve the quality of the outcomes in real time demands.

In line with these demands, the Indonesian state as a developing country continues to improve its quality of education. It is proven by the design and implementation of curriculum 2013 that is character-based and competent-based. The 2013 curriculum is the answer and solution to overcome the various problems and challenges faced by the Indonesian people and it is necessary to immediately rearrange the education system as a whole and comprehensive, especially related to the quality of education and its relevance to the needs of the community and the professional world compiled by the Ministry of Primary and Secondary Education during the reign of the *Kabinet Bersatu*.

Besides to the demands of the time, the background for the design of the Curriculum 2013 is related to the low literacy ability of students in Indonesia. Data obtained from the Progress in International Reading Literacy Study (PIRLS) survey conducted in 2011 showed that the average test results of fourth grade students in Indonesia are in the "low" competence category. Thus, the government assumes that the material taught in schools is different from that tested or standardized internationally (Kemdikbud, 2013a).

In line with the implementation of Curriculum 2013, hitherto the government has made efforts to improve the education system by the issuance of the National Education System Act in 2003 and Regulation no. 19 of 2005 on the National Education Standards (SNP) which has been reorganized in Regulation no. 32 of 2013 with one of the considerations that " Regulation No. 19 of 2005 on National Standards of Education needs to be harmonized with the dynamics of the development of society, local, national, and global in order to realize the function and objectives of National Education".

Presently, the implementation of the Curriculum 2013 has been done at all grade across all levels of pre-school, elementary, and secondary high school. The 2013 curriculum has three basic essences of learning, they are scientific approach, integrated learning, and authentic assessment. These three essences are the key to learning in the context of Curriculum 2013. All student activities are further packed with the designed essences. In implementing these three essences, learning activities focused on developing collaborative and student communication skills during the learning process. Achievement of the expected ability is reflected in the concept of implementation of each essence as follows.

First, the concept of a scientific approach (Kemdikbud, 2013:3b) includes learning skills that build upon a scientific approach, ie observing, questioning, reasoning, practicing, concluding and communicating. *Second*, it is integrated thematic learning which is believed to be able to accommodate and reach integrally the emotional, physical, and academic dimension (Kemdikbud, 2013). *Third*, the essence of authentic assessment that is believed to be able to give students the ability to solve real problems as well as to give the opportunity for students to be able to think, act, and work systematically.

The three essences are expected to be implemented at every level of school that has implemented the Curriculum 2013. Yet, the implementation in the field still requires a structured control so it can be used as a benchmark of socialization and revision of the implementation of Curriculum 2013. SDN Ngijo 03 Karangploso, Malang is one of the elementary schools that has implemented the 2013 Curriculum and is considered appropriate as a research subject. Consideration on the selection of the subject of this research is that SDN Ngijo 03 is the only targeted school designated in Karangploso, Malang as the 2013 curriculum implementing school until now, so that the implementation of 2013 Curriculum has reached all grade level in Elementary School.

Based on the results of interviews and observations on Vice Principals, classroom teachers, and students, it is obtained the following information. The results of the interview with the vice principal were informed that all the classroom teachers at SDN Ngijo 03 had followed the 2013 curriculum learning exercise at the school, the sub-district spearheaded by the UPTD, and in Malang district level. For teachers' books and student books, it is acknowledged by the vice principal that although a little late but now all books have arrived and can be used in classroom learning activities.

The results of observations on the learning activities of 5th-A class students in the class is obtained the information about the process of passive group discussion and 5M activity that has not been entirely visible. The results of interviews on the classroom teachers has obtained the same information as shown from the observations, i.e. students are less able to conduct discussion activities, students are less able in the aspects of writing, and speaking. The results of interviews with three students, it is obtained information that they had difficulty in group discussion activities.

In fact, the process of implementing the 2013 Curriculum in 5th-A class of SDN Ngijo 03 shows that: (1) it is not yet maximally thematic teaching process with scientific approach, because the characteristics of the scientific approach have not been fully visible so as to impact the quality of thematic learning of the students, (2) the teacher does not apply the learning model which is linear with a scientific approach. On the basis of this fact, the application of a model that can maximize the application of thematic learning with scientific approach is necessary.

One of the models of learning that is scientific and has shown success in improving the quality of student learning is the teaching-learning model of STH (Six thinking hats). This learning model is one of the learning models that are scientific and emphasizing on higher order thinking (de Bono, 2010:131).

The expected student learning outcomes of the STH model according to Majaya (2013:41) is to encourage students to achieve creativity by training for creative and systematic thinking, learning to be able to accept and respect others' opinions, find solutions, and solve problems with new findings. The STH model uses a hat symbol with six different colors. According to Majaya (2013:42), the use of hat symbols aims to engage teachers and students actively to play a role and make it easier for students to understand and speak up. In its use, the hats can be imaginatively visualized, but for elementary school education can be realized in the form of a real hat.

In a study conducted by Al-Bakri (2011), it is concluded that the implementation of the STH model has been proven to develop student performance in writing and provide opportunities for students to simplify students' thinking processes, explore facts, look for positive and negative aspects of a particular topic, make logical solutions, and take decisions. Research conducted by Upadana et al. (2013) for the implementation of the STH model shows that STH aims to work on one type of thinking activity at a time that not only develops students' creative and critical thinking skills but also has a positive impact on student empathy.

Based on the study and the results above, it can be formulated an action hypothesis, that is "If the students of 5th-A class of SDN Ngijo 03 Karangploso, Malang is taught using scientific approach model of six thinking hats, then the quality of student learning increases". The explanation above gives guidance on two assessments, that is thematic learning of STH model and the result of thematic quality of student learning after following learning with STH model. Thinking framework of implementation of thematic learning model STH at SDN Ngijo 03 Karangploso, Malang as in Figure 1 below.

METHOD

This class action research was conducted with the subject of 5th-A class of SDN Ngijo 03 Karangploso, Malang, consisting of 27 students, consisting 11 male students and 16 female students. Research is done through two cycles. Problem solving in this research is done through stages (a) identifying the problem of how not optimal the implementation of the teaching of theme with scientific approach yet, (b) identifying STH model that will be used in thematic learning according to the potential of classroom and student environment, (c) arranging the design of STH learning model (d) applying the STH learning model and evaluating the process and the result in the end of learning process, (e) evaluating the results of research through observation, reflection, and modeling, (f) obtaining STH learning models for thematic learning with a scientific approach.

Based on the problem solving above, the variables studied in this study are learning with the STH model as a variable of action and the result of the quality of student learning as the expectation variable. The determination of the STH model is determined by the success indicator of action, with design and action criteria reflecting the six hats (white, red, yellow, black, green, blue) activity combined with 5M activity (observing, questioning, reasoning, practicing, concluding). Level of development of scientific learning process STH model which includes the development of hat activity seen on the achievement of value with criteria very well with the minimum percentage of acquisition 70% of the number of students. In improving the quality of learning outcomes that include affective aspects, cognitive, psychomotor are in the affective aspect, the achievement of student discussion process results with the criteria has been entrusted with a minimum percentage of acquisition of 70% of the number of students. In the cognitive aspect, the achievement of the value increase between pre-test and post-test in the range of 86–100 criteria is very good with the minimum percentage of acquisition 70% of the number of students. In the psychomotor aspect, the achievement of student activity increase makes poster with good value criterion at least 70% of students.

RESULT

This research was conducted by implementing STH model design through two cycles. Results obtained from the implementation of the STH model are described as follows.

Until the end of the second cycle it was found that the STH model was a thematic learning model with a scientific approach that needed to be developed as a thematic learning model focused on 5M activities and discussions. In outline the process as follows.

- (1) Preparing text or videos that support the theme.
- (2) Developing students' ability in observing with white hat.
- (3) Developing students' ability in questioning with white, red, yellow, black, green, and blue hats.
- (4) Developing students' skills in reasoning with red, yellow, and black hats.
- (5) Develop the ability to practice with a green hat.
- (6) Develop students' ability to conclude with a blue hat.
- (7) In every lesson, discussion activity is absolutely done.

The whole process of thematic learning using the scientific approach of the STH model that occurs during the two cycles that support the above findings is shown in the results of the analysis of the process development and the scientific learning outcomes of the STH model as follows. The facts of the findings about the development of the learning process using the STH model for each hat between the first and second cycles are described in Table 1 below.

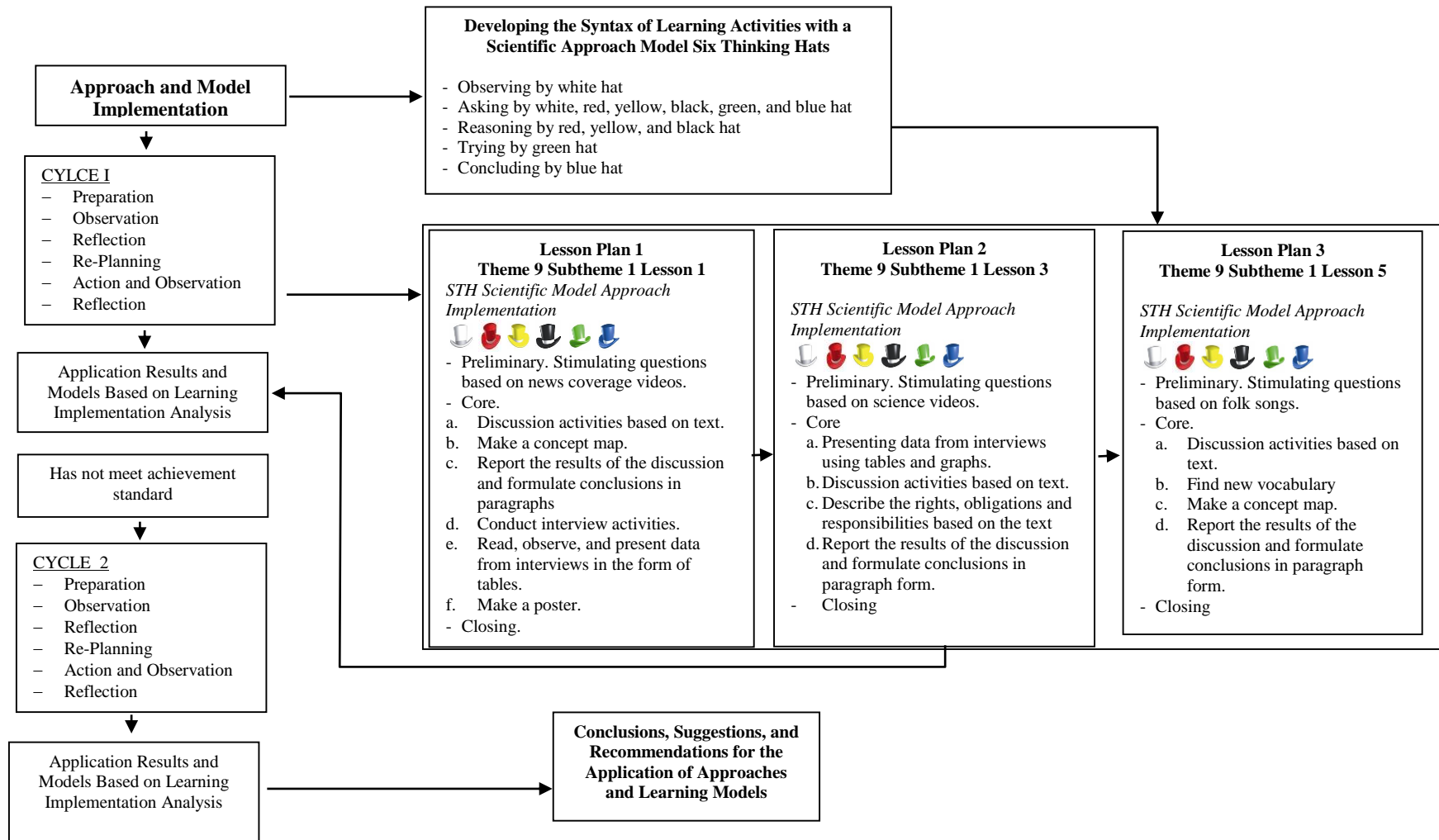


Figure 1. Framework for Thematic Learning Implementation of *Six Thinking Hats*

Table 1. Comparison of Development of Learning Process of Six Thinking Hats Model

CYCLE I	CYCLE II
White Hat	
In the last lesson, for aspect of fact interpretation, 24 students were able to get excellent score and 3 students needed guidance. For the aspect of fact analysis, 27 students were able to get excellent score. As for the aspects of manipulation of information, 18 students get very good score, 4 students get enough score, and 5 students need guidance.	In the last lesson, for the inter-pretation aspect of facts, all students are able to get excellent score. For the aspect of fact analysis, 23 students were able to get excellent score and 4 students got good score. As for the aspect of information manipulation, all students are able to get excellent score.
Red Hat	
In the last lesson, for the aspect of expressing intuition, 15 students were able to get excellent score, 4 students got enough score, and 8 students needed guidance. For the aspect of expressing feelings, 27 students were able to get excellent score. As for the aspect of emerging emotions, 23 students get very good score and 4 students get good score.	In the last study, for the aspect of expressing intuition, 23 students were able to get excellent score and 4 students got good score. For the aspect of expressing feelings, 27 students were able to get excellent score. As for aspects of emerging emotions, 13 students get very good score and 14 students get good score.
Yello Hat	
In the last study, for the aspect of expressing positive criticism, 18 students were able to get excellent score, 5 students got good score, and 4 students needed guidance. For the aspect of exploiting the profit, 23 students are able to get excellent score and 4 students need guidance. As for the aspect of expressing positive judgment and strength, 10 students get very good score, 8 students get good score, and 9 students need guidance.	In the last study, for the aspect of revealing positive criticism, 23 students were able to get excellent score, 4 students got good score. For the aspect of expressing profit, 19 students were able to get excellent score and 8 students got good score. As for the aspects of revealing positive ratings and strength, 14 students get very good score, 9 students get good score, and 4 students need guidance.
Black Hat	
In the last study, for the fact (negative) criticism aspect, none of the students got very good score, 10 students were able to get good score, 4 students got enough score, and 4 students need guidance. For the aspect of exposing suspicion, 5 students were able to get excellent score, 4 students got good score, 4 students got enough score, and 14 students needed guidance. As for the aspects of disclosing risk, 14 students get excellent score and 13 students need guidance.	In the last lesson, for the aspect of fact (negative) criticism, all the students who scored very well. For the aspect of expressing suspicion, 23 students were able to get excellent score and 4 students got good score. As for the aspect of disclosing risk, all students get very good score.
Green Hat	
In the last study, for the aspect of making a possibility, 9 students got excellent score and 18 students were able to get good score. For aspects of solving problem solving efforts, 14 students were able to get excellent score and 13 students needed guidance. As for the aspect of creating new ideas / ideas, 14 students get very good score and 13 students need guidance.	In the last lesson, for the aspect of making a possibility, none of the students got very good score, 8 students got good score, 14 students got enough score, and 5 students needed guidance. For the aspect of solving problem solving efforts, 13 students were able to get excellent score, 4 students got good score, 10 students got enough score, and none of the students needed guidance. As for the aspects of creating new ideas/ideas, none of the students get very good score, 4 students get good score, 18 students get enough score, and 5 students need guidance.
Blue Hat	
In the last lesson, for the aspect of classifying facts, 1 students got very good score, 2 students were able to get good score, 15 students got enough score, and 9 students need guidance. For the aspects of outlining facts, 2 students were able to get excellent score, 2 students got good score, 11 students got enough score, and 12 students needed guidance. As for the aspect of making the conclusion, 2 students get very good score, 2 students get good score, 2 students get enough score, and 21 students need guidance.	In the last lesson, for the aspect of classifying facts, 23 students got very good score and 4 students got good score. For the aspect of outlining facts, 23 students were able to get excellent score and 4 students got good score. As for the aspect of making a conclusion, 5 students get very good score and 22 students get good score.

Improving quality of learning using the STH model including affective, cognitive, and psychomotor aspects shows the following results. Aspects of students' affective responses were observed during the discussion: the confidence and courage aspect in the opinion increased 62%, the openness to criticism/feedback to opinions increased 12%, the responsibility for completing the task increased by 7%, the obedience to the agreed procedure and the timeliness 4% increase, and persistence aspect to plan discussion task did not increase at the end of second cycle learning. The cognitive aspects of students. The students' cognitive aspects of ability are seen from the comparison between the pre-test and post-test scores for each lesson in the first and second cycles described in Table 2 below.

Tabel 2. Comparison of Cognitive Aspects

CYCLE I	CYCLE II
Bahasa	
On the content of this lesson, the comparative score of students between pre-test and post-test on all learning in cycle I has improved. The increase is that in teaching-learning 1, the comparison between the pre-test and post-test grades of students who got a score in the range of 86-100 (A) increased by 4%. In learning 3, the comparison between students' pre-test and post-test score increased by 50%. In learning 5, the bandages between the student's pre-test and post-test score increased by 100%.	On the content of this lesson, the comparative score of students between pre-test and post-test on all learning in cycle II has increased. The increase is, in learning 1, the comparison between the pre-test and post-test score of students who got the score in the range of 86-100 (A) increased by 66%. In learning 3, the comparison between the pre-test and post-test score of students increased by 37%.
Natural Science	
On the content of this learning, the comparative score of students between pre-test and post-test on all learning in cycle I has improved. The increase is that in learning 1, the comparison between the pre-test and post-test grades of students who get a score in the range of 86-100 (A) increases by 7%. In learning 5, the comparison between the pre-test and post-test score of students who got a score in the range of 86—100 (A) increased by 89%.	On the content of this learning, the comparative score of students between pre-test and post-test in cycle II has increased. The increase is, in learning 1, the comparison between the pre-test and post-test score of students who got the score in the range 86-100 (A) increased by 67%.
Civic Education	
On the content of this lesson, the comparative score of students between pre-test and post-test in cycle I has increased. The increase is, in learning 1, the comparison between the pre-test and post-test score of students who get the score in the range of 86-100 (A) increased by 85%.	On the content of this lesson, the comparative score of students between pre-test and post-test in cycle II has increased. The enhancement is, in learning 3, the comparison between the pre-test and post-test score of students who get a score in the range of 86-100 (A) increases by 89%.

Psychomotor aspects of students for the ability to make posters. Students' ability in making posters between the first and second cycles is assessed from 4 aspects. In terms of accuracy of content and knowledge, students who scored very well increased 26%, good and correct aspects of Indonesian use increased 22%, self-reliance, accuracy, and accuracy increased 11%, and for aspects of display attractiveness increased by 15%.

DISCUSSION

Until the second cycle, teacher researcher can master the class well. Learning objectives can be clearly communicated. The learning process is carried out in accordance with the planned steps in the scenario. In preparing the learning strategy, it is based on the previous learning reflections and discussions with classroom teachers. The application of the hat arrangement used begins with the presentation of data with a blue hat, followed by observing and analyzing facts in white hat, followed by red hat activity, yellow hat, black hat, green hat, and ends with a blue hat. The implementation of the hat is proven to allow students to organize their knowledge up to the stage of finding ideas to solve problems and to formulate the conclusions of the results of group discussions.

In addition, the order of the hat must also be based on the characteristic of the facts to be discussed. For example, in learning 3 of second cycle, the teacher presents the text "*Mengenal Masyarakat Badui*", then students are asked to discuss about the text using STH. In the discussion activity, the expected final result is to know the initial idea and the positive value contained in the text, so that in practice, the teacher does not generate black hat activity. The assumption is, the use of a hat is flexible adapted to the learning objectives formulated (Jensen, 2011). In this case the removal of black hat activity will not affect the essence of 5M (observing, questioning, reasoning, practicing, concluding) which from the outset became a priority target of improving students' abilities.

The role of TR in fostering student learning attitudes has reached the stage of proactive action to help directly. The shortcomings found in the implementation of the STH model which is the lack of service to students who have not been able to argue in a straightforward and creative thinking. It is characterized by the emergence of the name of students who always get the value of "less" when compared with his classmates.

In the application of the STH model, the researcher teacher uses several signal thinking tools, in the form of colored paper (Whistler, 2012), presenting hats directly into the class (Majaya, 2013), and colored pens. The signal thinking tools presented to the classroom by the teacher are proven to help the students in remembering the role of each hat. This is in accordance with statements by Drevitch, Kosarik, Minner, and Steele (2007).

The result above shows the learning component used to support the implementation of learning using STH model has been done well. This is due to the learning process that is in accordance with the steps that are planned and agreed upon in the scenario. When the teacher shows a theme-appropriate video on apperception activities, students are asked to reveal questions based on alternating hat characters, then the 5M activity with STH as the initial stimulus has been done.

When students are asked to conduct discussion activities to analyze the text and realize the results of the discussion in the form of mind map, paraphrasing, and presentation, then the process of group discussion process has been done as well as affective aspects of students during the discussion observed. When students are asked to do the pre-test and post-test questions, the students' cognitive abilities will be measurable. When students make posters that match the theme of learning, then the psychomotor ability of students is also measurable.

Enthusiastic students in following the learning process is shown by the activity of students in following the learning that is generally serious. Student's attention to each instructional activity instructed by the teacher is done well. Students demonstrate a responsible attitude to complete every activity provided by the teacher. The ability to express opinions develops rapidly, as well as the development of the ability to present the results of discussion in front of the classmates.

The learning process using the STH model as described above is based on the STH model implementation steps for learning (Jensen, 2011; de Bono, 1996; Drevitch, Kosarik, Minner, and Steele, 2007; Majaya, 2013), frame work for the STH model (AEA 267, 2007), and the context of the Scientific-learning approach of the Curriculum 2013 (Abidin, 2013, Kemdikbud, 2013b). The three components of the STH model implementation steps, framework, and context provide a reference in determining the steps of learning activities, documenting the quality of learning, and assessment.

In relation to the activity developed in the application of the STH model, the results of this study are similar to those of Toraman (2013). The study states that the STH model is able to develop affective, cognitive, psychomotor, and student creativity. Discussion activities are also a kind of activity that is recommended to maximize students' ability to express opinions and design presentations. Through the implementation of this STH model, students get a learning experience that is able to bring students in a fun learning situation in groups. However, the implementation of this STH model still needs continuous habituation. In addition, teachers should continue to innovate in designing lesson plans to address student boredom.

The application of the STH model in the learning process refers to Jensen's (2011) statement, i.e. the teacher first provides an initial stimulus in the form of questions that represent every aspect of the thinking of each hat. To clarify the discussion, the following example presents the questions raised in the learning 3 of the first cycle. The questions raised in each hat activity refer to frame work for the STH model formulated by AEA 267 (2007) and the question and cognitive level formulated by Kemdikbud (2013b). The framework also proves Jensen's (2011) statement that the frame work function is also a means of controlling discussion activities so as to avoid moving to the next hat before the content of the hat appears.

Besides in the form of mind map, the activity of learning process using STH model is also emphasized on the activity of writing the result of group discussion in paraphrase form. The improvements shown by the students in paraphrasing the results of the discussion tend to be slower. This is caused by the activity of writing is a learning activity that is rarely done students. The findings are in line with McAleer's (2014) statement which states that the continuity of applying the STH model to every teaching-learning process. In addition, according to Majaya (2013), the habituation of STH way of thinking can not only be done in schools in groups, but also can be done at home with relatives and parents so as to support students' success in thinking with STH with their group at school. In this writing ability, although not all students have achieved the ability to write up to excellent grades, but most students have been able to show improvement in their writing skills. The improvement of students' writing ability is in synergy with the results of research conducted by Al-Bakri (2011).

The result of developmental analysis of thematic learning result with the scientific approach of STH model includes affective, cognitive, and psychomotor aspects. As seen from the affective aspect, students' ability showed improvement. Improvement of affective ability is analyzed from discussion activity using STH model by raising five assessment criteria, i.e. diligent planning of discussion task, obedience to performing according to planned procedure and punctuality, responsibility of completing task, openness to critic or suggestion to opinion, and confidence and courage in giving opinion.

Based on the findings of the affective aspect of research showing that the increase is evident that the STH model can improve students' ability to discuss. The findings of this study are similar to those of Karadag (2007). In addition, the increase also confirms McAleer's (2014) statement on the advantages of the STH model that the application of this model can develop students' potency in leadership and independence, develop students' ability in discussions, confidence, and create effective and organized group collaboration.

Seen from the cognitive aspect, students' ability in thematic learning is marked by the pre-test activity compared with the post-test activity. The pre-test and post-test questions are based on the 2013 Basic Curriculum Competencies, learning indicators, and STH frame work models (AEA 267, 2007). The pre-test and post-test questions are presented thematically then assessed and analyzed according to the lesson content on each lesson. By answering these questions, students are invited to think critically, analyze, reflect, solve problems, evaluate, and create possibilities. The concept is in accordance with de Bono (1992) and de Bono (2010) statement about the focus of high-level thinking skills on applying STH learning models at the school level.

The results shown from the analysis of the students' pre-test and post values until the second cycle of learning 3 were significant improvements. These improvements indicate that STH learning models should begin to be implemented in Indonesian schools. The results of this study dismiss the statement of Majaya (2013), that Indonesian schools do not apply the STH learning model. The success of this model has been proven to improve the quality of learning of elementary students in Indonesia, so the STH model is recommended to be applied to thematic learning in elementary school.

Of the several activities that can be classified in the psychomotor aspect, this research focuses on students' ability in making posters. Students' ability to pour ideas according to learning themes in the form of posters from first cycle to second cycle shows improvement. Improvement of students' abilities is analyzed by four assessment criteria, namely the criteria of accuracy and knowledge, independence criteria, precision criteria, and accuracy, and the criteria for display attractiveness.

Although the activity of making a poster does not appear in every lesson for each cycle, it is effective enough to complete blue hat activity. In addition, this activity is also tailored to the Basic Competence and indicators on each lesson. Activities that students can do to perfect blue hat activities are designed by the teacher creatively.

The activity of making the poster is in accordance with the statement of Majaya (2013:74) which states that another way that can be taken for blue hat activity is by sorting objectively relevant suggestions with the theme and that has been out of the theme of learning. In this research, the suggestion is in the form of pouring student ideas to overcome the problems that have been discussed in the form of posters.

CONCLUSION

In accordance with the problem and purpose of this thesis research, several things can be concluded with the following suggestions.

In this study, the STH model is only applied for the integration of the lesson of Bahasa, Civic Education, and Natural Science. Application of the STH model in the classroom is adjusted to the ongoing learning schedule. The choice of learning for the application of STH model is supported by problem-based text substance. The process of white hat activity metaphor, red hat, yellow hat, black hat, green hat, and blue hat is on discussion activity.

The development of the scientific learning process of the STH model includes the development of the white, red, yellow, black, green, and blue metaphoric activity demonstrated by the students' ability to analyse the text by discussing with their group members to bring out the characteristics of each hat. Until the end of the learning 3 of second cycle shows improvement.

The development of student learning outcomes using the STH model includes affective, cognitive, and psychomotor aspects. The affective aspects of the analysis were analysed from the affective responses of the students during discussion activities using the STH model showing improvement, i.e. from the five criteria for affective assessment formulated, 70% of the 27 students have been able to demonstrate consistent attitude. Developments in the cognitive aspects were analysed from comparisons of pre-test and post-test values of students on the lesson of Bahasa, Civic Education, and Natural Science showed improvement. It proves that the learning process using STH model can provide meaningful learning for students. In practice, students are not only not required to listen to teacher explanations, memorize theories, and do things. More than that, the STH model invites students to find the concept independently and purposefully. The development on the psychomotor aspect was analysed from the students' ability in making the poster showing improvement.

The STH learning model combined with the scientific approach is a finding for practical use. The findings are expected to provide input for classroom teachers and advanced researchers in applying the Curriculum 2013. For classroom teacher, it is advisable to apply, test, and develop the application of further STH models according to personal creativity. In order for its implementation, testing and development to be more meaningful, the concept of applying the STH model needs to be understood more deeply. In addition, teachers in order to motivate students to be more interested in learning using STH are advised to use a variety of learning media, providing text in accordance with the theme of learning and closer to the student environment, the lack of learning tools need not dampen the desire to create a learning environment that is fun for students. For the researchers in the future relating to this research topic it is recommended to apply STH learning models in primary to lower grade and focus on developing experimental activities with green hats and concluded with blue hats.

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