

THE DEVELOPING OF STUDENTS' HIGHER ORDER THINKING SKILLS BY INDONESIAN RURAL EFL TEACHER

Novita Silta Pasutri

novitasilta2811@gmail.com

Article Info	Abstract
<p>Article history:</p> <p>Received Revised Accepted</p>	<p><i>This research aims to explore the rural teacher's strategies to develop students' Higher Order Thinking Skills based on the 2013 curriculum in the rural area of Indonesia. The participant of this research is one English teacher who teach in the Junior High School in Gaung district. By using qualitative approach, the researcher collect the data employs non-participant observation in the teaching and learning process, interviewed the English teacher, also documents by collecting the lesson plan made by one of the English teacher. The result of this research showed that the teacher develop the students' Higher Order Thinking Skills by determining learning objectives with the eight characteristics of the lesson plan for 2013 curriculum, teach through questioning with LOTS questions, practice before assessment but it's not effective, also provide assessment and feedback. The researcher also found that the teacher miss the step of review, refine and improve because she did not collect the students' feedback. Based on the finding above, the researcher conclude that the teacher has been trying to do the steps to develop the students' HOTS, but the development of HOTS in the rural area is not reach the expectation of the Higher Order Thinking based on 2013 curriculum.</i></p>
<p>Keywords:</p> <p>Developing Higher Order Thinking Skills (HOTS) Rural Area</p>	<p>Abstrak</p> <p>Penelitian ini bertujuan untuk mengeksplorasi strategi guru untuk meningkatkan kemampuan berpikir tingkat tinggi berdasarkan kurikulum 2013 di kawasan pedesaan di Indonesia. Partisipan penelitian ini adalah satu orang guru bahasa Inggris yang mengajar di salah satu Sekolah Menengah Pertama di kecamatan Gaung. Dengan menggunakan pendekatan kualitatif, peneliti mengumpulkan data menggunakan observasi non-peserta pada proses belajar mengajar, melakukan wawancara dengan guru bahasa Inggris, serta menggunakan dokumen yang diambil dengan mengumpulkan rencana pembelajaran yang dibuat oleh guru bahasa Inggris. Hasil dari penelitian ini menunjukkan bahwa guru meningkatkan kemampuan berpikir tingkat tinggi siswa dengan cara mengidentifikasi tujuan pembelajaran dengan delapan karakteristik dari rencana pembelajaran pada kurikulum 2013, mengajar dengan menggunakan pertanyaan LOTS, melakukan latihan sebelum penilaian namun belum efektif, serta memberikan penilaian dan umpan balik. Peneliti juga menemukan bahwa guru melewatkan langkah peninjauan, penyaringan, dan peningkatan karena ia tidak meminta umpan balik dari siswa. Berdasarkan temuan tersebut diatas, peneliti menyimpulkan bahwa guru sudah mencoba melaksanakan langkah-langkah dalam mengembangkan kemampuan HOTS siswa, namun pengembangan HOTS di daerah pedesaan tersebut belum mencapai ekspektasi dari pengembangan kemampuan berpikir tingkat tinggi berdasarkan kurikulum 2013.</p>
<p>Corresponding Author:</p> <p>Novita Silta Pasutri E-mail: novitasilta2811@gmail.com</p>	

1. INTRODUCTION

HOTS or Higher-order thinking skills is the ability to get and elaborate the information in the learning process. It helps the students apply knowledge and skills in a new context by using new information and "manipulate" information to reach possible answers to the situations and enable students to store information and implement to the real-world situation (Bookhart, 2010; Heong, et al., 2011; Ramos, et al., 2013 in Khoiriah et al, 2018). It also an important role in applying, connecting, or manipulating the prior knowledge to solve the problem. HOTS is important to help the students discuss and understand new issues. Based on the data from PISA reported by the Organization for Economic Co-Operation and Development in 2012 cited by Kusuma et al (2017), Indonesia students are at the rank of 64 from 65 countries for the ability to think as HOTS. It means the Indonesian students need something to improve their thinking ability.

In the 2013 curriculum, the Higher-order thinking skills (HOTS) have to develop starting from elementary school till the university level (Kemdikbud, 2016). It is the differences in the previous policy of the 2013 curriculum and the revision in 2017. At the beginning of the 2013 curriculum, the target competence of thinking skills is divided into four skills, factual, conceptual, procedural, and cognitive, the elementary students just stop if they can understand. It's just a conceptual skill and kind low thinking skills (Anderson & Krathwohl on Khoiriah et al, 2018 & Retnawati et al, 2018). So, the government wanted to train the students to think creatively, not only for senior high school students but also for elementary and junior high school students (Kemdikbud, 2016).

High order thinking skills (HOTS) is active when someone faces unfamiliar problems, uncertainties, questions or dilemmas. Thinking as HOTS is solving the problems by multiple solutions (creative problem-solving), considerable mental energy directed toward problem solving, subtle less than obvious decision about strategies, transferable some criteria to the problem-solving process, problems that do not provide a clear starting point, some degree metacognition and self-awareness, development and application of new theories onto sets of facts and problems (Mainali, 2012). According to Bloom (1956) and then revised by Anderson (2005) the level of thinking skills divided into three levels of thinking, the Lower Order Thinking Skill (remembering), Middle Order Thinking Skills (understanding and applying), and Higher Order Thinking Skills (analyzing, evaluating, and understanding).

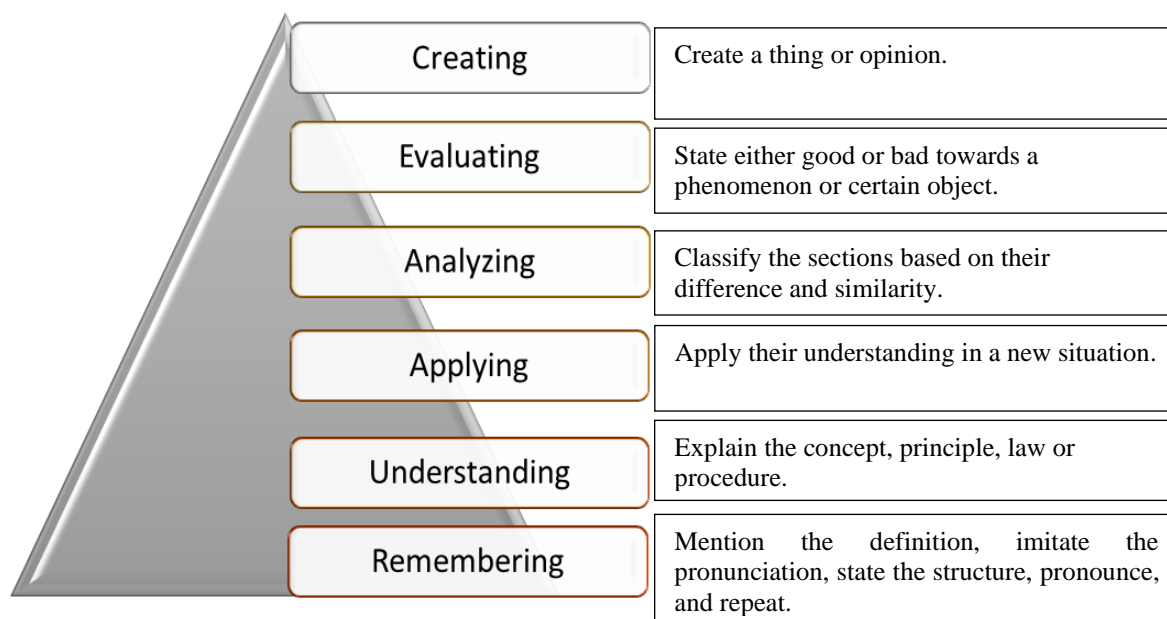


Figure 1 The level of thinking (Krathwohl, 2002; Anderson, 2005; and Forehand, 2011)

Based on the Government Regulation of the Republic of Indonesia no. 32 of 2013, there are eight National Education Standards set by the government, namely content standards, process standards, graduate competency standards, teacher and education staff standards, facilities and infrastructure standards, management standards, financing standards, and education assessment standards. From the eight national education standards, the most relevant standards for higher-order thinking skills based on the learning process and assessment are graduate competency standards, content standards, process standards, and educational assessment (Helmawati, 2019). The importance of mastering higher-order thinking skills contained in several points of the High School Graduate Competency Standards. Based on Ministry of Education Regulation No. 23 of 2006 the expected points are that students can build and apply, and show information or knowledge logically, critically, creatively, and

innovatively in decision making; and demonstrate the ability to analyze and solve complex problems. Then content standards, process standards, and educational assessments are made based on these graduate competency standards. Then content standards, process standards, and educational assessment standards are made based on these graduate competency standards.

As Limbach and Waugh (2010), Mainali (2012) and Kusuma et al. (2017) there are some steps to develop students high order thinking. The first step is determining learning objectives. It focused on how the teacher design the lesson plan. According to Helmawati (2019) the principle of the lesson plan based on the 2013 curriculum are giving attention to the characteristics of the students, focus on the students' participation, student center, develop the students' interest to read and write, giving feedback to the students, emphasize the interrelationship between basic competencies, learning material, learning activities, indicators of competency achievement, assessment and sources, integrated thematical learning, and use technology in the process of teaching and learning. The second step is teach through questioning. Limbach and Waugh (2020) stated that questioning can give the greatest impact in developing students' HOTS. Then, the teacher should give practice before assessment. After that, the teacher should review, refine and improve the learning materials by collecting feedback from the students. The final step in is provide assessment and feedback.

Since HOTS has become a part of the 2013 Curriculum, the teacher had to improve the students' higher-order thinking skills. This regulation should be applied throughout Indonesia, including in rural areas. There is no standard national definition of rural. The definition of rural depends on a person's experience about the place (Food and Agriculture Organization of the United Nations, 2018). However, the definition of rural areas in Indonesia has been stipulated in Law Number 7 of 1983 concerning Income Tax as amended by Law Number 7 of 1991. In this Law, it is stated that rural areas are areas that have economic potential in the form of sources. natural resources in agriculture, forestry, mining, tourism, and industry, but the state of available economic infrastructure and facilities is still limited so that to convert the available economic potential into real economic strength, investors need to build at their own expense the infrastructure and facilities they need, such as roads, ports, electricity, telecommunications, water, employee housing, health services, schools, places of worship, markets and other social needs, which require large costs. This is the basis for the researcher to say that Teluk Kabung Village, Gaung District, Inhil, Riau is one of the areas classified as a rural area.

This research was conducted in a Junior High School in Teluk Kabung, Gaung District, Inhil, Riau. Even though this school located in a village, the school still has to live up the provisions and targets set out in the 2013 Curriculum, where they must develop the students' higher-order thinking skills. However, the result of the pre-observation that the researcher did in this school showed that the students' thinking ability is in the low and middle level. The students are more silent and listen to the teacher's explanation rather than asking questions or giving their opinion during the lesson.

The previous research related to the Higher Order Thinking Skills such as from Sangmin-Michelle Lee (2014) who analyze the collage students in Korea about the correlation between cognitive presence, the value of social presence, and the relationship between them to the Higher Order Thinking Skills. He found that high cognitive presence density did not guarantee the Higher Order Thinking Skills, but the social presence is positively related to the cognitive presence. On 2015 Yen and Halili found that the teacher have to realize that the effectiveness of teaching HOTS only when the students active in the process of teaching and learning. Baki et al. (2016) also did the research to find the level of rural students' critical thinking in Malaysia, and found that rural students are not familiar with the critical thinking. Then on 2018, Retnawati et al. describes about the teacher knowledge about HOTS in Indonesia. They found that teachers' knowledge and their ability to improve the students' HOTS is still low.

2. RESEARCH METHODOLOGY

The researcher used the qualitative approach which has the characteristic of natural (natural setting) and source the data directly. The researcher use the case study approach to explain about the rural EFL teacher's strategies in teaching higher order thinking skills. This research taken in one of the villages in Gaung district, it calls Teluk Kabung. The participant of the research was chosen only one English teacher in a junior high school who work in a small village in Gaung district. The researcher collected the data from the non-participant observation, one on one or individual interview, and collected the lesson plan made by the English teacher. This data analyzed with the steps of transcribing, coding, categorizing, interpreting, and validating the finding by using the triangulation based on the types of data.

All of those research stated there are still problems to teaching Higher Order Thinking Skills. The research that focus on the student' skill only held in Malaysia and the research from Retnawati et al found that teachers' knowledge and their ability to improve students' HOTS is still low. Practically, based on the observation that the researchers did in the rural area, the researchers found that students in the rural area ais passive in the teaching and learning process, limited school facility to support the teachers to teach, and the students have lack English proficiency. This is a gap of this research, since the teachers' knowledge and their

ability on developing HOTS is still low, and there are some challenges in teaching in the rural area, how can the teacher develop the students' HOTS especially in a rural area in Indonesia. So, this research investigated how the rural EFL teacher develop the students' Higher Order Thinking Skills.

3. DISCUSSION

Based on the observation, interview, and collecting the teacher's lesson plan as the documents, the researcher found that the teacher did almost all of the steps in the teaching for students higher-order thinking. The first step that the teacher did is determining learning objectives. This part focus on the lesson plan that the teacher made for English class and the researcher found that the teacher made the learning objective as HOTS plan. After the teacher determine the learning objectives the teacher teach through questioning. The teacher did the step of teach through questioning, but the question that the teacher gave to the students belong to low order thinking questions. Beside that, the teacher implement the step of practice before assessment. In this part, the teacher use group discussion to make the students practice. But, this is not effective to this class because most of the students just sit and keep silent while the process of the discussion. Then, the researcher found that the teacher implement the step of review, refine, and improve. Based on the observation and the interview, the researcher found that the teacher review and refine the English materials. Then, improve in this point belong to feedback from the students to the teacher and the teacher did not collect the feedback from the students while teaching and learning. It means that the teacher did not do the improve for teaching and learning. However, the teacher provide assessment and feedback. This point talking about feedback from the teacher to the students. Based on the observation and the interview, the researcher found that the teacher use low order thinking questions for assessments and give her students feedback for students' performance in English class.

This finding in line with the theory of Limbach and Waugh (2010), see also Mainali (2012) and Kusuma et al (2017) who stated that there are five steps to teach the students' higher-order thinking skills (HOTS). The steps are determining learning objective, teach through questioning, practice before assessment, review, refine and improve, and provide assessment and feedback.

Determining learning objective

This step is the process of designing the lesson plan. The plan should have specific target in behavior, introduce and practice the desired behavior and end with the learner exhibition of the behavioral response (Kusuma et al, 2017). To find the data about this step, the researcher analyze the lesson plan made by the teacher and did the interview with the teacher.

The teacher in the school where the researcher did the research has been create the lesson plan for higher-order thinking skills. As Helmawati (2019) state that there are eight characteristics of the lesson plan to develop the students' HOTS and the lesson plan made by the teacher fulfill all of those characteristics. The rural English teacher following the Helmawati's theory in determining learning objectives. The characteristics of the HOTS lesson plan for 2013 curriculum are analyze the students' characteristics, students participation, student center, developing students' interest to read and write, giving feedback to the students, interrelationship between basic competencies, learning material, learning activities, indicator of competency achievement, assessment, and sources, integrated thematical learning, and application of the technology in the teaching and learning process.

Teach through questioning

Teach through questioning means that the teacher did not tell all of the informations to the students. The teacher can teach by give the students' the opportunity to observe, then the students can ask questions about the materials or the teacher give some questions to the students about the informations that they learn in English class. This step can stimulate the students' ability to think when they try to find the answer for each questions (Barbara, 2010).

While observing the teaching and learning process, the researcher found that the teacher did the step of teach through questioning. But, this strategy did not work to develop the students' higher-order thinking skills in junior high school students in rural area. When the teacher give the students some questions, the students did not give the respond to the questions. The students just keep silent and did not shows their higher-order thinking skills. The teacher give the questions to the students related to low order thinking skills (LOTS) because the teacher just ask the students about the meaning of the words. This type of question belongs to the verb translating. Based on the verbs use in assessment for the level of thinking develop by Eber and Parker (2009), this verb belong to understanding as a part of low order thinking skills.

Based on Limbach and Waugh (2010) the questioning technique can help the students to explore their thinking ability. To develop the students' higher-order thinking skills, the teacher needs to give the high level questions to the students to make the students familiar with the concept of HOTS. Based on this theory and the finding of this research, the researchers found that the activity of teach through questioning did not match with the theory of teach through questioning for HOTS. Since the teacher give LOTS questions for the students, it can

bring the students to the low order thinking skills because as Mainali (2012) stated in his journal that the level of students' thinking influenced by the type of questions give by the teacher.

Practice before assessment

Practice before assessment aims to give the students opportunity to explore their knowledge and make the students understand about the materials, skills, attitudes, and behavior that was be evaluate (Limbach and Waugh, 2010). This step was applied by the teacher where the teacher give a time to the students to practice about how to make a dialog to their friends. The response of the students in this part is good where they can use the oportunity to practice even not all of them participate the practice to make a dialog in English. As long as the researchers observe the teaching and learning process, the teacher used the group discussion for every meetings. The problem is, not all of the students active to the process of practice in English class. Some students students just keep silent in the process of discussion. The meaning of practice for HOT might be participating in higher level thinking like pose arguments, state opinions, look for evidence, critique the evidence, and think with fair-mindedness (Limbach and Waugh, 2010). In this case, the using of group discussion might pose the students high thinking skills if all of the students can participate to the activity. So, the researcher conclude that the teacher do the practice before assessment but this strategy is not effective because most of the students are not active in their goup.

Review, refine and improve

The process of review, refine, and improve is the teacher activity to develop the quality of English teaching process. The teacher believe that she has been review and refine the materials from some sources that she got from the internet. The teacher miss the part of collecting feedback from the students where this is the meaning of review in this part is about students' feedback in the teaching and learning process.

Since the teacher did not collect the feedback from the students, this finding not suitable to the theory of Limbach and Waugh (2010) about the review, refine, and improve. Limbach and waugh stated that the teacher can refine and improve the materials by the students' feedback. Angelo and Cross (1993) in Limbach and Waugh (2010) suggested that collecting feedback from the students is a method to find the students' need in the teaching and learning process.

Provide assessment and feedback

Assessment is a process to evaluate the students' performance in learning process. In this step, the teacher assess the students and then give relevant feedback to them based on their performance (Kusuma et al, 2017). To assess the students, the teacher do the multiple choice questions, but she did not give the feedback to the multiple choice questions. On the other hands, the teacher give the feedback directly after the students present the result of their discussion in front of the class.

From all of the explanations above, the researcher indicate that the teacher plays the impotant part to develop their students' higher-order thinking skills. The teacher applied all of the steps as Limbach and Waugh (2010), Mainali (2012) and Kusuma et al (2017) state in their research. Even the teacher has been applied all of the steps to develop the higher-order thinking skills (HOTS) the junior high school students in rural area still can not reach the expectation to think as HOTS.

In the case of the developing of EFL rural students' higher-order thinking skills, the teacher needs to give more times to practice because practice can make everything better. Beside that, the teacher have to create the confortable area in English class and find the suitable strategy to improve students motivation to learn and think as high order thinking skill (HOTS). The result of this study also related to the Baki, Galea, and Nimehchisalem in 2016. As Baki et al stated that teacher must conceptualize critical thinking skills explicitly and apply diverse instructional strategies. They also stated that the rural students are not familiar to the critical thinking area and do not demonstrate the expected critical thinking in literacy level.

4. CONCLUSION AND SUGGESTION

4.1 Conclusion

Based on the finding and the discussion, it can be conclude that the rural teacher did some steps to teach the rural junior high school students' Higher Order Thinking Skills. The steps are (1) The teacher determining learning objectives with the characteristics of the 2013 curriculum such as analyzing the students' characteristics, students participation, student center, developing students' interest to read and write, giving feedback to the students, interrelationship between basic competencies, learning material, learning activities, indicator of competency achievement, assessment and sources, integrated thematical learning, and the application of technology in the teaching and learning process; (2) Teach through questioning with low order thinking questions; (3) Giving practice to the students by using group discussion, but this strategy is not effective to use for the rural students; (4) The teacher miss the part of review, refine, and improve because she did not collect the

students feedback as a key of this part; (5) Provide assessment and give feedback to the students after the assessment.

4.2 SUGGESTION

Based on the finding of this research, the researcher suggest the teachers to follow the steps in teaching Higher Order Thinking Skills. The researcher also suggest the teacher to develop their teaching strategy to motivate the students to learn English and explore their thinking skills. The researcher hope that this research can be use as a reference about the process of implementing the curriculum to the curriculum developer and also the government as a head of education in Indonesia.

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