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Socratic Seminar Method to Improve Students' Critical Thinking Ability in Indonesian Language Learning

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ABSTRACT
This study aims to describe the implementation of the Socratic seminar learning method to improve students' critical thinking skills in learning Indonesian language in elementary schools. The data collection methods used was interviews, observation, and tests. The data of this study were interviews results about the needs of Indonesian language learning in elementary schools, the results of observations of Indonesian language learning, and the test results of students' critical thinking skills in Indonesian language learning. Data from interviews and observations were analyzed by identifying, classifying, interpreting, and presenting data. The results of the critical thinking ability test are analyzed by finding the average percentage value presented descriptively. The results showed that the students were able to improve critical thinking skills, including the ability to interpret, analyze reference, evaluate, implement, and regulate themselves after attending Indonesian learning using the Socratic seminar method. The teachers are expected to understand ways to improve students' critical thinking skills in learning Indonesian language.

Keywords: *Critical thinking, Indonesian language learning, socratic seminar method*

1. INTRODUCTION

The progress of the times in the 21st century is very fast and unpredictable in all aspects of life including the fields of economy, transportation, technology, communication, information, and education is no exception. Changes and progress in these various fields not only have positive impacts, but also negative ones. This is as stated by Redhana (2014), that changes are taking place very quickly in the 21st century can provide opportunities if they can be utilized properly, but can also be disastrous if they are not anticipated in a systematic, structured, and measured manner. For example, advances in technology and information today are often used by irresponsible people to spread hate speech and hoaxes. For that, everyone who lives in the 21st century needs to have 21st-century skills, one of which is to think critically to process information and make the right decisions wisely.

Students living in the 21st century need to possess four 21st century skills, one of which is critical thinking. This is in line with the opinion of Greenstein (2012) which states that students living in the 21st century must master science, have metacognitive skills, be able to think critically and creatively and be able to communicate or collaborate effectively. Fogarty and Mc Tighe (1993) argue that critical thinking is a reflective way of thinking that makes sense or is based on reasoning to determine what to do and believe. Meanwhile, Collins (2014) explains that critical thinking is a process that involves mental operations such as deduction-induction, classification, evaluation, and reasoning which are included in higher-order thinking skills. Critical thinking has several sub-abilities. Ennis (2011) divides critical thinking skills into 6, namely: (1) basic clarification, (2) the bases for a decision, (3) inference, (4) advanced clarification, (5) supposition and integration, and auxiliary abilities. In line with what Ennis said, Facione (2011) also divides critical thinking skills into six, namely the ability to interpret, analyze, evaluate, inference, explain, and self-regulate.

Critical thinking skills are very important. In addition to processing information, critical thinking skills are also important for making sound decisions. To make a reasonable decision requires data so that the decision taken is logical and considerate. On the other hand, critical thinking skills are also needed to solve problems. Problem-solving requires critical thinking skills. With

the ability to think critically, a person can understand a problem well and solve it based on information gathered from various sources so that an appropriate conclusion can be drawn (Kartimi, 2012). This is reinforced by the Regulation of the Minister of National Education Number 22 of 2006 which emphasizes that "critical thinking skills are needed so that students can manage and use the information to survive in ever-changing, uncertain, and competitive conditions".

Critical thinking skills need to be trained because these abilities are not carried from birth (Cahyono, 2017). Nevertheless, based on the preliminary study activities that have been carried out, grade V students generally have the ability to think critically in moderate category, with an average score of 50. This is supported by the results of interviews with the teacher that the students had difficulty solving problems, which requires the ability to analyze and conclude. Knowing this, teachers need to design lessons that can hone students' critical thinking skills. One way is to choose the right learning method to achieve learning goals. This is in line with the opinion of Wena (2009) and Wijaya et al. (1996) that learning should not only require students to be able to complete assignments or get good grades, but also have the ability to think critically.

Critical thinking skills can be trained, one of which is through learning Indonesian. Indonesian is very appropriate to use to hone students' critical thinking skills because it familiarizes students to solve problems using various types of texts. For that, it is necessary to use an appropriate teaching method. One of the learning methods that aim to make students able to think critically is the Socratic seminar method. The Socratic seminar method contains structured questions in the form of dialogues between teachers and students to test the validity of students' beliefs and make correct conclusions about the answers to an object (Hajhosseiny, 2012).

Based on the explanation above, this study aims to answer the problem formulation, namely how the implementation of the Socratic seminar method in Indonesian language learning to improve the critical thinking skills of students in grade V. With the results of this study, the teacher is expected to have a description of teaching and learning activities in Indonesian language learning using the seminar method. Socratic. Thus, teachers can design Indonesian language learning which in addition to being used to help students master aspects of language knowledge and skills, can also be used to improve students' critical thinking skills.

2. METHODS

This type of research is qualitative research. The purpose of this study is to describe the implementation of the Socratic seminar learning method which is used to improve students' critical thinking skills in learning Indonesian in elementary schools, especially in grade V. This is in accordance with one of the objectives of qualitative research, namely to describe and describe existing phenomena. Both natural and human engineering, which pay more attention to characteristics, quality, linkages between activities (Sukmadinata, 2011). Sources of data in this study were 24 students and a teacher of grade V in an elementary school in Yogyakarta. The data obtained from student data sources is a measurement of the level of students' critical thinking skills as supporting data. Meanwhile, the main data in this study were the results of interviews with student learning difficulties and the results of observations of the implementation of the Socratic Method in Indonesian language learning to improve students' critical thinking skills.

The data collection methods used were interviews, observation, and tests. The method is divided into two research activities, namely preliminary studies, and implementation. Interviews and tests were used in preliminary study activities to determine the phenomenon of learning Indonesian in grade V and learning difficulties experienced by students. Researchers used the type of unstructured interview, in which the researcher did not use interview guidelines that had been structured systemically, but instead used guidelines in the form of an outline of the problem (Sugiyono, 2017). In this unstructured interview, the researcher interviewed two teachers who taught Indonesian with the topic of the learning methods used and students' learning difficulties. Meanwhile, observations were made on implementation activities using observation guidelines to describe the implementation of the Socratic seminar method in Indonesian language learning to improve critical thinking skills. Observation guidelines consist of a checklist for learning activities using the Socratic seminar method syntax and students' critical thinking skills that appear during the learning. On the other hand, the test used is a type of essay test which consists of six items by adapting the California Critical Thinking Skills Test (CCTST) lattice to measure six sub-critical thinking skills according to Facione (2011), namely the ability to interpret, analyze reference, evaluate, explain, and self-regulate. The test is used as supporting data in preliminary study activities to determine the level of students' critical thinking skills and whether efforts to improve critical thinking skills are needed.

The data analysis technique used to analyze the main data of the research, namely the results of interviews and observations, is to identify, classify, interpret, and present data or which can be compressed into three steps of data analysis, namely data reduction, data presentation, and data verification according to Sugiyono (2017). On the other hand, supporting data in the form of critical thinking ability test results at the preliminary study stage were analyzed by looking for the average

value, then converting it with a category table for the level of critical thinking skills according to Karim and Normaya (2015), which is an average value of 81-100 categories. Very high, 61-80 high categories, 41-60 moderate categories, 21-40 low categories, and 0-20 categories very low. The data obtained were used to determine the level of students' critical thinking skills and presented descriptively.

3. FINDINGS AND DISCUSSION

The implementation of the Socratic seminar method to improve critical thinking skills in Indonesian language learning begins with the preparation of RPP (Learning Implementation Plan). The lesson plan is prepared using the Socratic seminar method with basic competences 3.2 [to classify information into aspects: *what, where, when, who, why,* and *how*] and 4.2 [presents the results of classification of information grouped into aspects: *what, where, when, who, why,* and *how* to use standard vocabulary]. The learning topics in the implementation of the Socratic seminar method are cleanliness and environmental health with the theme *Clean Air for Health*. As is well known, in elementary school grade V uses themes to learn the material. The Indonesian language material at the meeting was observed using science subject content. Implementation is carried out in online learning using the Socratic seminar learning method. The learning steps with this method include 1) preparing questions to be asked to students, 2) asking questions to students, 3) teaching how to solve problems, 4) guiding students' exploration, 5) providing feedback, 6) continue learning by changing to the next question or repeating the question if the question has not been answered (Paul & Elder, 2013).

3.1. Learning Activities by Using the Socrates Seminar Method

In the early learning activities, the teacher opens the lesson by showing two pictures covering the atmosphere in rural and urban areas. Students contrast the two pictures by comparing the air conditions in the village and town. This activity aims to encourage students to think critically in terms of interpretation. In the activity of contrasting pictures, students practice to understand the differences between the two pictures and state it. The following are the results of observations of student and teacher discussions in the activity of criticizing the images presented.

Table 1. Observation results of criticizing image

Questions that asked by teacher	Student Answer
How is the air in urban areas?	*"Dirty, not clear, people can't see easily."*
How is the air in the countryside?	*"Clean, clear, everything is visible easily."*
What makes the air in cities dirty?	*"Many factories emit smoke and incinerate garbage."*
What makes the air in the countryside cleaner than in the city?	*"Many factories emit smoke and incinerate garbage."*

The activity of criticizing the images presented in Table 1 shows that students are trained to think critically by involving critical thinking skills such as interpreting, analyzing, evaluating, inferring, and explaining. This activity is useful as a stimulus before entering the material. Then, the core learning activity begins with the first step of the Socratic seminar method, which is to prepare questions to be asked to students. The questions used in this implementation are adapting the learning steps to the Socratic seminar method according to Yunarti (2011), namely six types of Socratic questions which are directly related to critical thinking skills according to Facione (2011) that includes the ability to interpret, analyze, evaluate, inference, explain, and self-regulate. Table 2 shows the types of Socratic questions and their relation to critical thinking abilities according to Yunarti (2011).

Table 2. Types of Socratic Questions and Its Relationship to Critical Thinking Skills

Question Types	Questions Example	Critical Thinking Skills
Clarification	What do you mean by….? Can you give me an example?	Interpretation
Investigative Assumptions	What are you assuming? How can you choose those assumptions?	Analysis, evaluate, inferencing
Research reasons and evidence	How do you know? Why do you think that is true?	Evaluation, analysis
Point of view and perception	What do you imagine with that? What effect can it have? What is the alternative?	Evaluation, analysis
Implications and Consequences of Investigations	How do we find it? What generalizations can we make?	Analysis, self-regulation
Questions about questions	What does it mean? What is the point of this question?	Interpretation, analysis, inferencing

Furthermore, in the second step of the Socratic seminar method is to ask questions to students. The teacher presents a news text on the topic that the forest is the lungs of the world and discusses it by presenting some Socratic questions. The question also refers to the competency to be achieved, namely classifying information in terms of *what, where, when, who, why,* and

how. Presenting Socratic questions can already make students think more critically (Maxwell, 2009).

Then, the third step in the Socratic seminar method is to teach how to solve problems. In this activity, the teacher first gives a text then asks students to make six questions covering aspects of *what, who, when, where, why,* and *how.* To be able to compile that, the teacher invites students to list the steps that must be taken to compose questions, for example by finding main ideas, recording important information, making mind maps, and so on. This activity directly trains students to develop critical thinking skills, especially self-regulation skills. Facione (1990) defines self-regulation concerning one's awareness to monitor one's cognition and the elements used in the thought process and the results developed. In this case, students are trained to plan problem-solving steps systematically.

The fourth step is to guide the students' exploration. The teacher assists the students to compile six questions based on the text provided by the teacher. Students make a mind map of the main ideas of each paragraph, explore information that contains aspects of *what, who, when, where, why*, and *how*, then formulate questions related to this. The activity of compiling such questions can certainly help students improve students' critical thinking skills as stated by Pangestuti and Latifah (2019) that learning with the Socratic seminar method through raising questions can help learners develop critical thinking skills.

The fifth step is to provide feedback. The teacher appreciates and confirms the student's work. Then, the teacher continues learning by changing to the next question. The teacher gave reflective questions to encourage students to evaluate themselves with the question "Have I kept the air around me always clean and fresh? What can I do to keep the air around me clean and fresh?" In addition to encouraging students to self-regulate, these questions can also encourage students to evaluate and explain. Evaluating in this case is assessing experiences and situations using logic. This shows that students are getting more optimal in improving their critical thinking skills through learning. Similar research has been conducted by Fahim and Bagheri (2012) shows that the Socratic seminar method implemented in language learning can improve students' critical thinking skills because it requires students to reason through various types of texts.

3.2. Students' Critical Thinking Skills that Appear in Learning by Using the Socratic Seminar Method

Learning activities using the Socratic seminar method syntax above can directly improve students' critical thinking skills. This can be observed through the observations that have been made. The observation in question is the observation of learning activities in the second stage, which is to present questions to students. Table 3 presents the results of observations of answers submitted by students orally that reflect critical thinking skills.

Table 3. Observation results of oral students answer

Types of Socratic Questions	Material Related Questions	Student Answers	The Reflected Critical Thinking Skills
Clarification	What is meant by forests are the lungs of the world?	*"Forests have many trees that can produce oxygen for humans."*	Interpretation
Investigative Assumptions	On which island has experienced the largest decrease in forest area?	*"In Kalimantan. In Kalimantan, the forest is being cleared for oil palm cultivation."*	Analysis, evaluate, inferencing
Research reasons and evidence	How will the life of the animals in the forest when the forest area decreases?	*"Habitat and animal population are threatened. Many orangutans enter residential areas to look for food."*	Evaluation, analysis
Point of view and perception	What can we do so that the forest area does not continue to decrease?	*"We can save paper use and recycle paper so that not many trees are cut down."*	Evaluation, analysis
Implications and Consequences of Investigations	Who is obliged to protect the forest? When do we need to do this?	*"Every citizen needs to participate in maintaining forest sustainability and becoming a daily habit."*	Analysis, self-regulation
Questions about questions	What is the point of the question "Why do we need to conserve forests?	*"We must realize the importance of forests and formulate steps to conserve forests."*	Interpretation, analysis, inferencing

Table 3 shows that the teacher has compiled questions related to learning material. The table also shows that students are required to think critically by provoking students to give answers using the ability to interpret, analyze, evaluate, inference, explain, and self-regulate. This happens because the teacher has used the type of Socratic question. According to the statement of Sulaiman (2018), Socratic questions can stimulate students to think critically.

On the other side, students also demonstrate critical thinking skills in the fourth stage. At this step, students compile Socrates' questions independently and answer questions compiled by other students. Based on the observations, the students were able to formulate the

assigned questions. Students individually compose six questions and exchange the questions they have with other students to provide answers. Students are able to answer questions from another student. Students are encouraged to improve their critical thinking skills through formulating questions and answering questions. Students who exchange to formulate and answer questions can automatically practice critical thinking skills (Khaliq, et al., 2017; Susiani & Suranata, 2017).

Students' critical thinking skills in learning are certainly not only seen in the second and fourth stages of learning. As previously explained, in the first stage the teacher asks students to think critically to contrast two pictures. In the third stage, the teacher asks students to do self-regulation to map a problem-solving plan. Moreover, in the fifth stage, students are also asked to think critically by reflecting through self-analysis and evaluation. Knowing all of that, it can be said that all stages in the Socratic seminar method can encourage students to think critically. This is supported by the research of Rizkasanti et al. (2018), Syukur et al. (2019), and Sahamid (2016) in their research stated that students who took learning with the Socratic seminar method tended to be more active and showed optimal critical thinking skills used compared to students who took learning using conventional methods.

4. CONCLUSION

The results of this study concluded that the implementation of the Socratic seminar method in Indonesian grade V learning could improve students' critical thinking skills. The learning steps carried out in the Socratic seminar method are 1) preparing questions to be asked to students, 2) asking questions to students, 3) teaching how to solve problems, 4) guiding student exploration, 5) providing feedback, 6) continue learning by changing to the next question or repetition of questions if the questions have not been answered. Based on the observations that have been carried out, students can improve their critical thinking skills by answering questions and formulating questions. Questions that are given to students using the Socratic type of questions include clarifying questions, the assumptions of inquiry, the reasons and evidence of the investigation, points of view and perceptions, implications and consequences of investigation, and questions about questions. Students demonstrate the ability to think critically to interpret, analyze, infer, evaluate, explain, and self-regulate in participating in Indonesian language learning using the Socratic seminar method.

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REFERENCES

Cahyono, B. (2017). Analisis ketrampilan berfikir kritis dalam memecahkan masalah ditinjau perbedaan gender. *AKSIOMA: Jurnal Matematika dan Pendidikan Matematika*, *8*(1), 50-64.

Collins, R. (2014). Skills for the 21st Century: teaching higher-order thinking. *Curriculum & Leadership Journal*, *12*(14).

Ennis, R. H. (2011). The nature of critical thinking: An outline of critical thinking dispositions and abilities. *University of Illinois*, *2*(4).

Facione, P. A. (1990). The California critical thinking skills test--college level. Technical Report# 1. Experimental Validation and Content Validity.

Facione, P. A. (2011). Critical thinking: What it is and why it counts. *Insight assessment*, *2007*(1), 1-23.

Fahim, M. & Bagheri, M.B. (2012). Fostering critical thinking through Socratic questioning in Iranian language institutes. *Journal of Language Teaching and Research*, 3(6).

Fogarty, R. & McTighe, J. (1993). Educating the teacher for higher-order thinking: The three-story intellect. *Theory into Practice. 32*(3); 161-169.

Greenstein, L. M. (2012). *Assessing 21st century skills: A guide to evaluating mastery and authentic learning*. Corwin Press.

Hajhosseiny, M. (2012) The effect of dialogic teaching on students' critical thinking disposition. *Procedia-Social and Behavioral Sciences.* 69, 1358- 1368.

Khaliq, I. Azzahra, A., Safitri A., Nurul M.R. (2017). Upaya meningkatkan daya berpikir kritis matematis siswa dengan menggunakan metode socratic kontekstual. *FIBONACCI: Jurnal Pendidikan Matematika dan Matematika*, *3*(1), 23-30.

Karim, K., & Normaya, N. (2015). Kemampuan berpikir kritis siswa dalam pembelajaran dalam pembelajaran matematika dengan menggunakan model jucama di sekolah menengah pertama. *EDU-MAT: Jurnal Pendidikan Matematika*. *3*(1).

Kartimi, K. (2012). Pengembangan alat ukur berpikir kritis pada konsep senyawa hidrokarbon untuk siswa SMA di Kabupaten Kuningan. *Jurnal Pendidikan MIPA Universitas Lampung*, *13*(1), 121251.

Maxwell, M. (2009). Introduction to the Socratic method and its effect on critical thinking. *Socratic Method Research Portal*.

Pangestuti, D. S., & Latifah, N. (2019). Pengaruh metode socrates terhadap kemampuan berpikir

kritis. *WACANA AKADEMIKA: Majalah Ilmiah Kependidikan*, *3*(1), 85-94.

Paul, R., & Elder, L. (2013). *Critical thinking: Tools for taking charge of your professional and personal life*. Pearson Education.

Redhana, I. W. (2014). Pengaruh model pembelajaran seminar socrates terhadap hasil belajar siswa. *Jurnal Cakrawala Pendidikan*, *33*(1).

Rizkasanti N. H., Susilana R., Dewi L. (2018). Efektivitas penerapan metode pembelajaran socratic circles terhadap peningkatan kemampuan berpikir kritis siswa. *Educational Technologia*, *2*(2), 112-121.

Sahamid, H. (2016). Developing critical thinking through Socratic questioning: An action research study. *International Journal of Education & Literacy Studies*, *4*(3), 62-72.

Sugiyono, P. D. (2017). *Metode Penelitian Bisnis: Pendekatan Kuantitatif, Kualitatif, Kombinasi, dan R&D*. Penerbit CV. Alfabeta: Bandung.

Sukmadinata, N. S. (2011). *Metode Penelitian dan Pendidikan*. Bandung: PT Remaja Rosdakarya.

Sulaiman, M.S.H.A., (2018). Students' critical thinking enhancement through Socratic questioning: A pedagogical study. *Proceedings of 184th The IIER International Conference, Langkawi, Malaysia,* 18-23.

Susiani K. & Suranata, K. (2017). Implementasi metode sokratik melalui lesson study untuk meningkatkan keterampilan berpikir kritis mahasiswa. *Indonesian Journal of Educational Counseling*. *1*(1), 27-40.

Syukur, S. D., Kadir, Bey W., Prajono, R. (2019). Pengaruh penerapan metode pembelajaran socratic terhadap kemampuan berpikir kreatif matematis siswa kelas viii mts negeri 2 bombana. *Jurnal Pendidikan Matematika. 10*(2), 172-182.

Wena, M. (2009). *Strategi pembelajaran inovatif kontemporer suatu tinjauan konseptual operasional*. Jakarta: bumi aksara.

Wijaya, H. C., Muchlis, & Wardan, A. S. (1996). *Pendidikan remedial: Sarana pengembangan mutu sumber daya manusia*. PT Remaja Rosdakarya.

Yunarti, T. (2011). *Pengaruh metode socratic terhadap kemampuan dan disposisi berpikir kritis siswa SMA*. Bandung: UPI.