



CONSTRUCTION OF UNDERSTANDING IN VIEWING NATIONAL SOVEREIGNTY OVER MINERAL AND COAL RESOURCES

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| <p>Received: December 10th 2023 Accepted: January 10th 2024 Published: February 14th 2024</p> | <p>Understanding as a person's level of knowledge and awareness of a particular concept, topic or issue. In the context of this article, understanding refers to students' level of knowledge regarding national sovereignty over mineral resources, such as coal, and how it can influence their critical thinking on related issues. The aim of the research is to construct students' understanding of viewing national sovereignty to improve critical thinking. Using a qualitative type of research with a descriptive approach, through interviews in collecting data followed by a triangulation method to measure the validity of the data. This technique makes it easier for researchers to collect the necessary data. The conclusion is that a balanced educational approach is needed, between students' knowledge, understanding and actions. Students' understanding before receiving learning was still lacking, but after being given material through learning it changed. They have even prepared themselves to become actors in managing coal as the largest source of wealth.</p> |

Keywords: Critical Thinking, National Energy, Constructivism

INTRODUCTION

Indonesia has enormous mineral and coal resources. Indonesia's mineral and coal potential is in the 6th richest position in the world. For the Asian region, Indonesia's mineral and coal position is number 1 in copper deposits; number 2 in gold deposits; number 3 in laterite nickel deposits; number 3 in coal production; number 1 in tin production. Currently, the use of coal is increasingly dominant with the existence of the national energy policy, meanwhile the production of fossil energy such as oil and natural gas has decreased due to increasingly depleting reserves, plus data from the national energy mix is still dominated by fuel oil, so it is not impossible that the price will continue to increase. Therefore, with the existing coal potential, it is attractive to start substituting and diversifying oil and natural gas fuels because there is still huge coal potential in Indonesia (Luthfi, 2023; Suryaningsi Suryaningsi, 2009).

Mineral and coal resources are an integral part of a country's sovereignty. Therefore, it is important to involve an understanding of control and management by the government. Increased knowledge about the extraction, processing and use of mineral and coal resources, taking into account the impacts of exploitation. (Suryaningsi Suryaningsi, 2021a) Society, economy, and the targets of the impacts. Including analysis of job creation, state financial income, environmental impacts such as air and water pollution, and climate change.

Evaluation of policies and practices for the exploitation of mineral and coal resources by the government and mining companies (S Suryaningsi, 2023; Suryaningsi Suryaningsi, 2020, 2021b). It's time to review policies to see whether they really support national sovereignty and sustainable development, or whether they provide unequal benefits to certain parties. The act of critical thinking in finding alternatives and solutions that can increase the benefits of mineral and coal resources for the country, while minimizing the negative impacts. Through efforts to promote the use of renewable energy, economic diversification, and strengthening regulations for environmental protection.

Community participation in decision making regarding the exploitation of mineral and coal resources is very important. (Latabulo & Pamungkas, 2022; Olena & Timea, 2021) Communities must be involved in the decision-making process to ensure that their interests are represented and their rights are protected. By building a comprehensive understanding of national sovereignty over mineral and coal resources, and applying critical thinking in analyzing existing policies and practices, we can advance sustainable development and ensure fair and sustainable use of natural resources (Li et al., 2022; Makarov et al., 2019; Mojses et al., 2022).

Based on these conditions, it is necessary to analyze the benefits of minerals and coal for the national economy, to find out the various obstacles and obstacles that have affected the mining sector, in terms of supply, needs, potential and resources, policies, investment and the economy. The results of the analysis include, among other things, the role of the mineral and coal sector is still low in the national economy and the level of investment in this sector is low. Article 33 in the 1945 Constitution of the Republic of Indonesia (UUD 1945) regulates the national economy.

It is also important to pay attention to the sustainability of mineral and coal resources. Therefore, the nation's next generation, namely students, can improve critical thinking. (Kumar et al., 2020; Sahoo & Khaoash, 2020) Carrying out and developing a deep understanding of the concept of national sovereignty and the importance of control over natural resource management for a country. This condition will help students understand the relationship between the existence of mineral and coal resources and national strength and security.

Through analysis and evaluation of existing information, students will develop their critical thinking skills. They will learn to question assumptions, identify different perspectives, and evaluate the implications of natural resource-related policies and practices (Kostarev, 2020). Students will understand the importance of conservation of natural resources and consider the long-term implications of overexploitation. They will learn about the concept of sustainability and how to maintain a balance between resource utilization and environmental protection for future generations. Students will be encouraged to develop sustainable ideas and solutions related to the use of mineral and coal resources. This includes considering the use of renewable energy, environmentally friendly technologies, and policies that support sustainable development.

By understanding national sovereignty over natural resources, students will be empowered to participate in discussions and decision making related to the use of natural resources at local, national and global levels. By focusing on these priorities, education about mineral and coal resources can be a means of developing a generation that is environmentally aware, critical in thinking, and committed to sustainable development (Arlov, 2022).

In general, the reality is that coal mining business activities are not carried out in an environmentally friendly manner and are even indicated to be causing a lot of damage to the environment. The proof is that if there is quite high rainfall, there is a risk of landslides and landslides as well as a lot of agricultural land being buried in mud from mine excavation waste. Coal mining damages the environment and only makes people miserable. In East Kalimantan, in 2017 there were around 1,404 mining business permits (IUP) spread across all districts and cities in East Kalimantan. The effects of these environmentally unfriendly activities have left no less than 332 voids (mining holes) in mining areas that have not been closed (reclamation). In fact, some of the voids have become death holes because they claimed the lives of people around the mining area because they drowned in puddles of water.

Large mineral and coal resources have not provided optimal benefits for the national economy; and does not attract mining investors to invest their capital in Indonesia. Investment to date continues to show declining and stagnant performance. Indonesia's attractiveness in the eyes of investors is ranked 62nd out of 68 countries, while other countries, although not as rich in mineral resources as Indonesia, are actually better known for their advanced mining industries, such as Australia, Brazil and South Africa.

RESEARCH METHODS

The research method used in this research is a qualitative research method involving students at SMPIT Cordova. Then the types of research used are field research, research locations and research data sources that have been determined for this research, data collection techniques which consist of observation, recording, note taking and interview techniques, as well as data analysis techniques in the form of data reduction, data presentation and extraction. Qualitative research aims to analyze and describe a phenomenon that is of interest to researchers in the social environment. This is seen from the perspective of individual or group activities, attitudes and perceptions. The activities were carried out as encouragement to students in providing an understanding of the potential of coal in East Kalimantan. Learning activities with a descriptive approach as a guide to provide students with understanding in viewing existing national sovereignty over coal. With the aim of making it easier for students to understand and raise awareness of natural wealth, especially coal in East Kalimantan.

RESULTS AND DISCUSSION

A. Students' Understanding of Viewing National Sovereignty Over Mineral and Coal Resources to Improve Critical Thinking

Construction of students' understanding in viewing National Sovereignty over mineral and coal resources can improve students' critical thinking. It is necessary to provide in-depth understanding to anticipate students becoming coal mining business actors who are not based on a high sense of responsibility and concern, so this learning in forming a strong understanding is very necessary. As stated by Mr. Ferdiansyah as a Citizenship Education teacher, "My approach in teaching aims to encourage students to understand that national sovereignty over mineral and coal resources involves shared responsibility in their management and utilization."

(Piaget, 1952) Learning is essentially a process of interaction with all situations that exist around the individual. Learning can be seen as a process that is directed towards goals and a process of acting through various experiences. Learning is also a process of seeing, observing, and understanding something. Some information from the group above can be concluded that national sovereignty in the context of mineral and coal resources means that the state has full control over the exploitation, management and benefits of these resources without excessive

external dependence. From the results presented, the researcher considered several things related to students' understanding of national sovereignty over mineral and coal resources, namely that the state has full control over the exploitation, management and benefits of these resources without excessive external dependence.

The development of natural resources and the environment is a reference in various development sectors to create balance and environmental sustainability so that human life remains guaranteed. The use of natural resources should provide opportunities and space for community participation in environmental maintenance and sustainable development.

In this group discussion, students were very enthusiastic as seen from their curiosity about the issue being discussed, relevant views from their ability to analyze and argue as well as providing responses to other groups. The discussion method is a method or method that can be attempted to increase cooperation between students, help each other, mutual understanding between them by providing a problem to discuss.

In this activity they can exchange experiences, exchange information, so that all students can be active in learning. Paizaluddin and Ermalinda (2012: 215) explain that the discussion method is a way of presenting lessons where students are faced with a problem which can be in the form of a problematic statement or question to be discussed and solved together.

B. Obstacles that Occur in Constructing Students' Understanding of Viewing National Sovereignty Over Mineral and Coal Resources to Improve Critical Thinking

Obstacles in this research cannot be denied, such as the emergence of lack of self-confidence, fear of taking steps and feelings of laziness which are often experienced. People often experience feelings of lack of self-confidence because they think that writing or scientific work is very complicated to do. Likewise, the fear of making mistakes actually makes the writer even more mentally weak to continue this scientific work. Feelings of laziness often hit me so I always buy time to provide active guidance to my supervisor. This can happen because it is very easy for researchers to overthink the results of research carried out during the research period. Some of these internal factors can be caused by a lack of support in the friendship and family cycle. And a feeling of distrust of oneself and comparing with other people who have better abilities.

The obstacle experienced is the lack of knowledge of students to understand the material provided through learning. This is also because teachers who teach in the relevant field of study do not provide examples of natural phenomena that occur around the area where they live which is surrounded by coal mine pits that are no longer operating. Apart from that, mobile access is not implemented enough in the learning system so that students cannot provide a lot of and up-to-date information at this time Lack of access to relevant resources, such as textbooks or up-to-date and diverse learning materials, can be an obstacle in providing a comprehensive understanding of issues related to mineral and coal resources.

Materials related to national sovereignty over mineral and coal resources and the sustainability of natural resource potential are often complex and require in-depth understanding. This can make students feel overwhelmed or difficult to understand thoroughly. Student inactivity in the learning process can be an obstacle in constructing in-depth understanding. Lack of participation in discussions, lack of interest in the topic being taught, or inability to make connections between concepts learned and real-world situations can hinder the development of deep understanding.

(S Suryaningsi & Sari, 2021) Critical thinking is a complex skill and takes time to develop. Students may have difficulty questioning assumptions, critically analyzing information, or identifying sustainable solutions to natural resource problems. Lack of time in the curriculum or in class hours available to study these topics can be a barrier to conveying sufficient information and providing adequate opportunities for reflection and discussion.

Curricula and learning materials may tend to emphasize one particular point of view without providing balanced information or introducing different points of view. This can hinder the development of deep understanding and balanced critical thinking. Efforts that educators can make need to design learning approaches that pay attention to students' needs and interests, utilize various relevant teaching resources and techniques, and provide appropriate support for the development of critical thinking and reflection skills. With a holistic and integrated approach, these obstacles can be overcome to achieve effective learning goals in terms of national sovereignty over mineral and coal resources and the sustainability of natural resource potential.

C. Efforts to Construct Students' Understanding of Viewing National Sovereignty Over Mineral and Coal Resources to Improve Critical Thinking

Efforts can be made to overcome barriers to students' understanding of viewing national sovereignty over mineral and coal resources to improve critical thinking. Mr. Ferdiansyah's opinion as a Civic Education (PKn) Teacher is "we use teaching methods that actively involve students, such as group discussions, simulations or case studies, to build their understanding in depth."

Small group discussions according to (Suryaningsi Suryaningsi et al., 2022) explain that small group discussions are a form of learning activity whose use is often required with the following characteristics: 1) involving 3-9 participants; 2) takes place in an informal face-to-face situation, meaning that each member can communicate directly with other members; 3) has goals that are achieved through cooperation between members, and 4) takes place according to a systematic process. Some relevant efforts according to researchers are: Involving students in

practical activities, such as field visits to mines or quarries, to provide direct experience and support understanding of the concept. Problem Solving by encouraging students to think critically and inviting them to find solutions to challenges that may arise in managing these resources.

Learning strategies and models greatly influence students' activeness and success in the learning process (Suryaningsi Suryaningsi et al., 2021). Student learning achievement is influenced by the accuracy of the learning model used by the teacher as well as strategies that can make the learning process interesting and enjoyable. Learning strategies are action plans including the use of methods and utilization of various resources or strengths in learning. Learning methods can be interpreted as the methods used to implement plans that have been prepared in real and practical activities to achieve learning objectives (Asmal et al., 2022).

The implementation of learning carried out by researchers uses a learning model *Focus Group Discussion* (FGD) so that this model can stimulate students to contribute in thinking about the ideas discussed and students can also identify and dig deeper into information about group beliefs, attitudes and behavior. The application of ZPD in the context of constructing an understanding of national sovereignty over mineral and coal resources and increasing critical thinking regarding the sustainability of natural resource potential is by identifying where students are in their ZPD range. Teachers can provide appropriate assistance, such as guiding discussions, asking challenging questions, or providing constructive feedback, to help students expand their understanding and skills in these areas. KZPD concept, teachers can design learning experiences that suit students' developmental levels and provide appropriate support to help them reach their maximum potential in understanding complex issues related to natural resources and national sovereignty.

(Vygotsky, 1978) view *Zone of Proximal Development* (ZPD) as the most important area to focus on in teaching, because this is where the most effective learning occurs. When students are in their ZPD, they may not yet be fully able to understand or complete a task independently, but they have the potential to do so with help. ZPD is one of the main concepts in the theory of social constructivism proposed by Lev Vygotsky. ZPD refers to the range between what an individual can do independently and what they can accomplish with help or guidance from others who are more experienced or skilled.

Aspects of education, ZPD highlights the importance of interactions between students and teachers, or between fellow students, in helping students reach their maximum potential. ZPD indicates areas where students are growing, but still need help or guidance to reach a higher level of understanding or skill.

Vygotsky introduced the concept of ZPD, which is the range between what a student can do independently and what they can do with help or guidance from another, more skilled person. In this context, teachers can act as facilitators who help students explore and understand complex concepts related to national sovereignty over mineral and coal resources and the sustainability of natural resources. Social interaction in learning is required to form a high level of understanding of the results of the teaching carried out by the teacher.

The reason is that students learn better through collaboration and discussion with others in the context of meaningful activities. By applying this principle, teachers can create a classroom environment that supports open discussion and critical reflection on issues related to natural resources. The importance of thinking aids (Warman, 2022), such as language, in learning. In this context, teachers can facilitate students to use language effectively in understanding and expressing their thoughts about national sovereignty over mineral and coal resources and the sustainability of natural resources.

Guidance and support from more experienced and skilled adults can help students reach their potential. In this context, teachers can provide guidance and constructive feedback to students as they try to understand and analyze issues related to natural resources. In understanding and applying these principles in teaching about national sovereignty over mineral and coal resources and the sustainability of natural resources, educators can help students develop a deep and critical understanding of these issues, so that they become individuals who think critically, responsible and caring for the environment.

Students as the nation's next generation are also national assets, so they need to increase their global insight. Considering that East Kalimantan has the largest coal potential in Kalimantan and high selling value. Understanding the importance of mineral and coal resources in the context of economic and social development is the first step to developing awareness about global issues such as poverty, inequality and climate change. This understanding is a form of support for sustainable development. Students have prepared themselves as early as possible to become historical actors and also managers of the potential of coal mining as the main resource of East Kalimantan.

Through the study of mineral and coal resource utilization, students will develop important analytical skills. Will also learn to evaluate the impact of the exploitation of these resources on various aspects of human life and the environment. Deep understanding of the relationship between the exploitation of mineral and coal resources and sustainable development, students will feel empowered to take positive action. Students can contribute to advocacy for more responsible and sustainable exploitation practices.

Students who have a strong understanding of the relationship between mineral and coal resources and sustainable development will be ready to face the challenges of the future. They will be able to adapt to changes in global energy needs and play a role in creating innovative solutions to support sustainable development. Through

educational institutions, educators can help form a generation that is environmentally aware, thinks critically, and is ready to face complex global challenges.

CONCLUSIONS AND RECOMMENDATIONS

The concept of the Zone of Proximal Development (ZPD) proposed by Lev Vygotsky, provides a strong framework in developing students' understanding of complex issues such as national sovereignty over mineral and coal resources and the sustainability of natural resources. Hands-on experience and active interaction with the material are important elements in deepening students' understanding of natural resources and their impact on national sovereignty and sustainability. Through learning that focuses on sustainable use of natural resources, students can develop their critical thinking skills. They learn to question assumptions, evaluate evidence, and identify sustainable solutions to complex problems faced by society. Collaboration between students and reflection on learning experiences are important elements in deepening understanding and improving students' critical thinking abilities. Through discussion and reflection, students can broaden their viewpoints and evaluate different perspectives.

Teachers have an important role as facilitators in directing students in constructing their understanding. Teachers must be able to create a supportive learning environment, facilitate discussion and collaboration, and provide appropriate guidance according to students' ZPD.

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