

THE USE OF BOXED MEDIA ON FATHER'S SOLAR MATTER TO ENHANCE THE CRITICAL THINKING CAPACITY OF SCHOLARS

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ABSTRACT

One of the essential things in the Merdeka Curriculum in order to improve the basic education system in Indonesia is the combination of Natural Sciences (IPA) and Social Sciences (IPS) subjects into Natural and Social Sciences (IPAS). This research aims to determine the improvement and description of the application of smart used box media to students' critical thinking abilities. The research method used is qualitative research, which aims to obtain more complete and in-depth data, so that the research objectives can be achieved and uses three cycles with data collection techniques of observation, interviews and documentation. Students' critical thinking skills can be obtained by using media or simple learning resources that contain information/phenomena of daily life and have potential problems that can be explored by students and involve a particular subject matter. It can be seen that with this media, SD Negeri 43 students can improve their abilities. critical thinking.

Keywords: *Used Magic Box Media, Critical Thinking.*

Introduction

After the 2013 curriculum, an independent curricular was issued, which is meant to be a new view of learning that gives students the opportunity to learn in a relaxed, quiet, enjoyable and free of stress and can demonstrate the natural

talents of each student. One of the few implementations demonstrated by this independent curriculum is a school that has begun to implement an independent Curriculum and gives freedom to use the teaching material already provided at school level. This independent currency provides three options for the school: self-learning, self-changing and self-sharing. It is free for school to study more deeply of these three options and choose according to the readiness of each school. (Sofyan Iskandar, dkk, 2023).

One of the important aspects of building quality human resources is the aspect of education. Without good education human resources will not develop and will not be able to compete with other nations. Education is the necessity of every human being throughout life. Without education, human beings are difficult to develop so education should be directed to produce people who are qualified, able to compete and have a good workforce. Through education, humans can learn to have skills so that they can be skilled, creative, and innovative. (Asrean Hendi, Caswita dan Een Yayah Haenilah, 2020).

Educational activities include teacher-student interaction, teacher role as mentor, student activity, and evaluation. Success in teaching often depends on the role and creativity of teachers, the need for teachers to specific goals and all the key skills learned. To create a new learning atmosphere with the aim of achieving the goal of learning, then students must have the spirit and enthusiasm in learning. Improving the quality of education can begin with understanding how students learn to determine the model and means of education that are appropriate to be given accompanied by the adaptation of the learning material that will be given. (Kinanti Prameswari dan Farida Istianah, 2022).

Learning media is something that can be used to channel messages (learning materials), so it can stimulate the attention, interests, thoughts, and feelings of students in learning activities to learning goals. The expected media is the media that can provide an explanation of the abstract lesson becoming concrete. (Intan Pratiwi, 2021).

In learning, of course, students need something interesting to see, to hear, even that they can feel by doing things. If learning is only centered on the teacher and applies the method of lecture only, then students will feel bored and learning becomes uninteresting. The use of learning media in addition to the purpose of facilitating teachers in delivering material to students, learning media also aims to attract the attention of students so that they are enthusiastic in doing the learning

process. (Azhar Arsyad, 2013).

A student's ability to think critically can be acquired by using a simple learning medium or resource that contains information/phenomena of everyday life and has potential questions that students can explore and relate to a particular subject matter. (Khoirul Umam, 2018)

It is called a magic box because the game is made of a cardboard box, while in its use the child does not know what is in the box so it creates the impression of mystery because at the time the box is closed. The child will know what was inside the box when the lid is opened, therefore it is called the magic box or mysterious box. (Veryawan Veryawan, Mery Tan dan Syarfina Syarfina, 2021).

Higher Order Thinking Skill (HOTS) is a high-level thinking skill that requires critical, creative, analytical thinking towards information and data in solving problems. High-level thinking is a type of thinking that tries to explore questions about existing knowledge related to issues that are not clearly defined and have no definitive answers. Thinking skills are crucial in the educational process. People think it can affect learning ability, speed, and learning effectiveness (Fathul Jannah, dkk, 2022).

One of the essential things in the Merdeka Curriculum in order to integrate the basic education system in Indonesia is the fusion of Natural Science (IPA) and Social Science (IPS) subjects into Natural and Social Sciences (IPAS). The fusion is based on the consideration that students at the elementary school level tend to see everything in an integral and integrated way. Besides, they are still in the stage of thinking simple/concrete and comprehensive but not detailed, so the merger of IPA and IPS subjects is expected to trigger students to be able to manage the natural and social environment in one unity (Delina Andreani & Ganes Gunansyah, 2023).

It is one of the disciplines that is necessary in everyday life because of course all the activities that we do is not far from the IPA. As the BNSP suggested that the advancement of the field of technology today is an implication of its majors in the area of IPA. Natural Sciences (IPA) relates to the method of finding out about nature systematically, so IPA is not only the mastery of a set of knowledge that is facts, concepts or principles but is also a process of discovery. IPA education is expected to be an opportunity for students to learn about themselves and the environment, as well as the prospect of further development in their application in everyday life. The learning process emphasizes the provision of practical

experience to develop the competence to explore and understand the environment scientifically. (Irpan Ahyadi, 2019).

One of the materials in the study of the IPA that is still a lot delivered is the solar system. The scope of the IPA subjects at the basic level based on the decision of the Minister of Education and Culture is as follows: bodies and sensory panels, plants and animals, the nature and shape of objects around them, the universe. and their appearance, the outer forms of the bodies of animals and plants, the living organisms, plant reproduction, the shapes of things, styles and movements, forms and sources of energy and alternative energy, the presence of the earth and its changes, the environment, universe and natural resources, climate and weather, skeleton and organs of human and animal bodies, food, food chains and ecosystem balance, the reproduction of living things, the adaptation of living beings to environment, health and human respiratory system, changes and properties of objections, thermal conduction, electricity and magnetism, solar system, mixture and solvent. (Riris Tianingsih, 2023).

Research Method

The type of research used is Qualitative research, which aims to obtain more complete and in-depth data, so that the research objectives can be achieved (Sugiyono, 2018). Descriptive research is research that is directed to provide symptoms, facts or events systematically and accurately, concerning the characteristics of a particular population or region (Hardani dkk. 2020). It can also mean to know the value of independent variables either one or more, by not comparing or linking one variable to another. (Asep Kurniawan, 2018). The research also uses PTK (Class Action Research) with three cycles of meetings as well as observation data collection techniques, interviews and documentation. (Salim dan Syahrums, 2012).

Result and Discussion

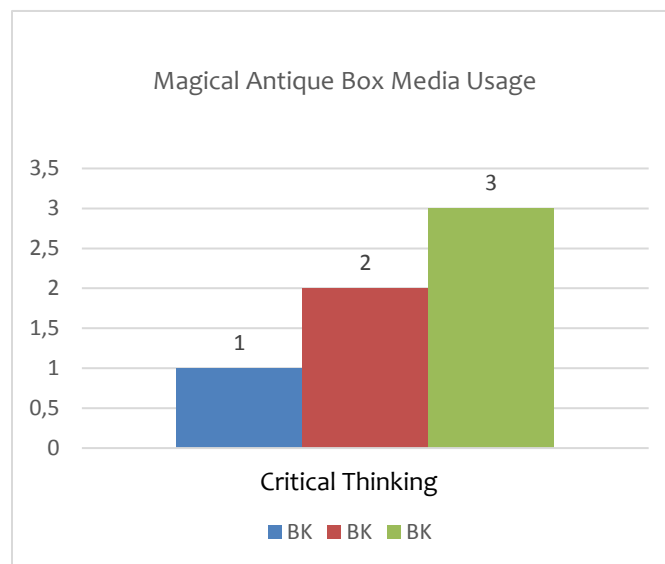
As has been pointed out in the previous section, the location or place where this research was carried out is the 43rd State Department of Seluma. The study is carried out in three cycles, in which each cycle takes place once meeting or face-to-face learning. The first cycle, in an interview with the teacher of SD Negeri 43 Seluma, he said he saw how the critical thinking ability of students in IPA learning

before the media existed. It appears from the HOTS (Higher Order Thinking Skills) question given still belongs to few who can answer.

Then in the second cycle, the teacher prepared and applied the media of the magical box at the time of learning IPA especially material of the solar system. The result is a considerable improvement in students' understanding of the learning material by giving high-level questions or HOTS. This medium can also be used in the form of games so that learning is not boring.

The final stage is the third cycle in which teachers are still using this medium as well as conducting learning evaluations in looking at students' ability to think critically. As a result, the critical thinking ability of students has been significantly improved so that the goal of learning can be achieved in understanding the material of the solar system in the State SD 43 Seluma. It's an akita bus see in the graph of students' increased critical thinking below.

Graph 1. Results of Students' Critical Thinking Skills



It is in line with Astiarini & Nur Syam research (2023), the role of HOTS-based visual audio learning media on the perspective of independent learning has an important role for success in pupils. With the use of visual audio media students are more motivated to learn. This has proved to be seen as learning is more interesting and understandable, the classroom atmosphere becomes more conducive and the attitude of the student becomes happier, not boring, the

enthusiasm and enthusiast in the learning process as well as the attention of students focused on the topics discussed in learning and arouses the understanding of students that are focused in the value of the daily repetition and students can do repetitions about the learning material. Implementation of visual audio media in learning can stimulate the spirit and desire of students to learn, so that students are expected to understand the materials taught.

Then the writer did an interview, whatever tools and materials were used in creating the media of this *Magical Ancient Box*. It is described that it consists of tools and materials that include cutters, scissors, brushes, used cardboard, styrofoam, plasticine candles, paints, sate sticks, hvs color paper, insulation, typex paper, pen, white spidol, orange balloon and lamps. How to make it prepare used cartridges for the styrophon spot, prepare all tools and material, paint styropoam according to space colors (solar sky), surface lines as the orbit lines of the solar system give white spots and make a small picture of stars on a variety of surfaces of styrfoam using white spids.

Put the balloons onto the bulb, make the planets round according to their size, color each planet according to its color, put a sate stick on the surface of the styrfoam and place every planet that has been made in order, insert the styrofoam of the solar system into the cardboard, make notes of the points of matter, stick them on the edges and when you're done, turn on all the bulbs and media ready for learning. Can be seen in the following picture.

Image 1. Magical Ancient Box Media



The application of the media learning the Magic Ancient Box with the child is welcome to see and observe the pre-fill of the box, so that it draws their

attention before we explain the matter. Even the paper on it can be shown to the children. We can introduce each of the existing planets, as well as the papers that we've been sticking to open to add their attention in understanding the material taught. We can also make quizzes for the kids in matching what's on paper with what they see.

Conclusion

Based on the discussion above, then the author draws the conclusion that the magic box is a quadratic box or cube that is not visible and the size can be adapted to the needs of the child. The critical thinking ability of students can be acquired by using simple learning media or resources that contain information/phenomena of everyday life and have potential questions that students can explore as well as relate to a particular substance. It appears that with the presence of these media, students of SD State 43 Seluma can improve their ability to think critically.

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