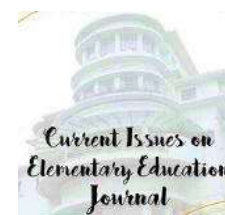




Current Issues on Elementary Education Journal

Journal homepage: <https://ejournal.upi.edu/index.php/CIEE>



Creative thinking skills in science learning using the RADEC learning model

Nur Syifa Putri Agustin¹, Anugrah Ramadhan Firdaus², Jajang Bayu Kelana³

¹SDN Jambudipa, Kab. Bandung Barat

²IKIP Siliwangi, Cimahi

³IKIP Siliwangi, Cimahi

*agustinnursyifa@gmail.com

ABSTRACT

The creative thinking skills of Indonesian citizens are ranked 115th out of 139 countries, meaning that the creative thinking skills of the Indonesian state are low. This needs to be overcome by giving treatment to everyone, one of which is through education. The research conducted aims to determine creative thinking skills in science learning for class V SD by applying the Read; Answer; Discuss; Explain and Create (RADEC) learning models. In this study, the researcher used qualitative methods with a population of fifth grades at elementary school Cisarua areas and a samples of 31. The results showed that fifth grade students had difficulties in improving creative thinking skills on indicators of fluent thinking and elaboration skills, but this can be overcome by applying them. RADEC learning model. The application of the RADEC learning model produces a positive response to science learning in improving creative thinking skills

ARTICLE INFO

Article History:

Submitted/Received 03/10/2023

First Revised 03/11/2023

Accepted 28/11/2023

First Available online 30/11/2023

Publication Date 30/11/2023

Keyword:

Creative thinking

Natural sciences

RADEC learning model

How to cite:

Agustin, N. S. P., Firdaus, A. R., & Kelana, J. B. (2023). Creative Thinking Skills In Science Learning Using The RADEC Learning Model. *Current Issues on Elementary Education Journal*, 3(1). 89-93.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



1. INTRODUCTION

One of important aspects in human life in the era of globalization are education. On century 21, education must oriented on competence Which needed, one of which is competency in creative thinking skills. Borualogo & Gumilang (2019) in in his research said that one of the 21st century skills that you need to have is creative thinking skills. In the world of education, creative thinking skills are very important It is important that this is proven because it can support student learning outcomes. That education itself is the basis for developing human resources. One of method For support creation man Which intelligent that is through giving education Which quality And Wrong One method Which can done For realize education Which quality with optimal through learning IPA.

IPA is eye lesson Which learn about natural in a way systematic (Wiyono & Budhi, 2018) . The application of science subject matter in elementary schools is focused by providing practical material so that students can improve their competence And can explore as well as know natural around in a way scientific. Process Learning in the classroom will run effectively if learning can be adjusted with developmental stages elementary school age children and presented interesting (Dihni, et al, 2022) Science learning needs to be designed well through implementation strategy learning Which innovative And effective so that objective education achieved.

In fact, when learning takes place teachers pressure students to memorize information without having to find it. So that student activity in the classroom becomes slow (Hidayat, 2022) . This also influences low creativity student when student answer question with give answer Which has explained by the teacher or in books without developing ideas or ideas himself (Rahmawati, 2022) . Creativity itself is the result of a person's interaction with the environment Which own ability For make something matter Which new (Munandar in Fakhriyani, 2016) . Creativity is a person's inner ability optimizing oneself by providing something new (Teviana & Yusiana, 2012) . So it can be concluded that creativity is a person's ability in develop a the thing that Already There is become matter Which new.

Creativity own connection with ability think creative Because Creativity can be formed if the creative thinking process goes well. Think Creativity is one's ability to solve a problem in an appropriate way new And thinking Which open (Moma, 2015) . Indicator think creative among them as follows; (1) Smooth thinking; (2) Flexible thinking; (3) Original thoughts and (4) Development capabilities (Munandar in Prasetyo & Mubarakah, 2014) . To overcome the problems discussed previously, efforts are needed done with method apply model learning Which capable give results Skills think creative student increase. In previous research conducted by Rahmawati (2022) with the title "Application of Inquiry Methods to Improve Students' Creative Thinking Abilities in Social Studies Learning". Previous researchers used the inquiry learning model to improve creative thinking skills in social studies learning. Here researchers will apply the RADEC learning model to improve students' creative thinking skills in the science teaching and learning process . Model learning RADEC that is model learning Which the steps in accordance with Name model the (Pritama, et al, 2020) ; (Kelana et al., 2022) . Step- The RADEC learning model steps include Read; Answer; Discussion; Explain And Create (Sopandi, et al, 2021) . Based on results study Which has conducted by Chairunnisa, et al (2022) that the RADEC learning model has stages that are easy to remember and effective when used in the teaching and learning process. The RADEC learning model can also improve the skills needed in century 21 (Setiawan, et al, 2019) . Therefore, measuring students' creative thinking abilities using the RADEC learning model is expected to make it easier for teachers to convey the lesson material presented; can increase student participation in

participating in the teaching and learning process; and can improve students' creative thinking abilities.

2. METHODS

The method used in this research is qualitative method. According to Sugiyono (2015), the qualitative method is a method that studies natural conditions, data sources are deliberately chosen, collection techniques are combined, data analysis is inductive, and emphasis is placed on meaning in research findings. The research location was in an elementary school in the Cisarua region with a sample of 31 fifth grade elementary school students. Research procedures include: preparation; implementation and evaluation. Meanwhile, data processing in this research includes: (1) data reduction, the stage of selecting found data according to needs; (2) data visualization, the act of organizing a collection of data so that conclusions can be drawn and actions taken; (3) final results and verification through analysis of student response questionnaire results. The student response questionnaire is used as a measuring tool to test students' difficulties in thinking creatively.

3. RESULTS AND DISCUSSION

3.1 Results

Results in improving learning creative thinking skills IPA material displacement heat use model learning RADEC with a number of stages study. Wrong the only one that is giving material For student carry out pre-learning, core activities in class by conducting discussions about the material that has been studied during pre-learning and work on it LKPD in groups. In connection with the results of research on skills students' creative thinking in science learning, heat transfer material listed in study. Matter This shown in table 1 below.

Table 1. Results Questionnaire Difficulty in Students' Creative Thinking

No.	Indicator	Percentage (%)
1	Response student to interest Study IPA	67
2	Response student to impact learning IPA with model learning RADEC	62.5
3	Response student to impact learning IPA with use model learning RADEC to enhancement ability think creatively	57
Average		62

Based on results questionnaire response student so concluded that results Student responses were in the good category. The mean score for each creative thinking indicator is shown in table under This.

Table 2. Score Mean Indicator Think Creative

No.	Indicator	Mean
1	Think Fluent	68%
2	Think Flexible	81%
3	Think Original	80.5%
4	Ability Elaborate	50%
Average Mark		70%

Based on the results of the table of mean scores for creative thinking indicators, it can be seen that the mean fluency in thinking is 68%, flexible thinking at 81%, original thinking at 80.5%, and ability elaborate as big as 50%. By line big mark mean is 70%, with indicator think creative Which more dominant there is on indicator think Flexibility and indicators that are lacking in the elaboration ability indicator can mean that students experience difficulty in the elaboration ability indicator.

3.2 Discussion

Process Study teach walk with fluent. Student looks enthusiastic, can be seen from the survey results that the researchers provided showing an average of 62%. This happened because of previous efforts, namely make design learning. Like Which be delivered by Makhrus (2018) that preparation device learning need done so that learning goes well. Process Study teach with model learning RADEC can encourage students to learn independently and increase activeness or participation student in process learning. In in his research Andini & Fitria (2021) show results model learning RADEC can increase results Study student. Whereas Pohan, et al (2020) in in his research show that model RADEC learning can improve reading comprehension skills. Through the results of previous research, it can be found the conclusion is drawn that model learning RADEC able to improve results Study student. In this research it is shown by recapitulation results test think creative student Which show percentage as big as 72 Which means model learning RADEC Good used to increase Skills think creative. A similar thing was shown by previous researchers Pratama, et al (2020) who proved that the learning model RADEC can improve HOTS on student.

The application of the RADEC learning model makes learning interesting. Objective use model learning RADEC is untuk measure students' creative thinking and improving student performance in the learning process. Flat- flat think creative is 70%. Matter This related with use model learning RADEC Which is solution in increase think creative. Matter This even supported by Agustin, et al (2021) according to him the RADEC learning model is capable build Skills century 21. Difficulty Which experienced student during process learning taking place average There is on indicator think fluent and the ability to elaborate because in providing answers students are only able to provide One answer just And student Not yet used to in explain something matter Which simple to definition Which more wide. Matter the influenced by lack of trust self student in activity learning. According to Amri (2018) Self-potential in the form of high self-confidence can create good achievements. However, as time goes by and the process gets used to it self, student can overcome it with learning Which done wrong the only one through application model learning RADEC Which able to improve Skills 21st century as well as participation students throughout the process Study teach. This matter supported by Sopandi (2019) in his research said learning model RADEC is a solution to the problems faced by students because of its syntax Which can increase activity and trust inner self communicate.

5. CONCLUSION

This research aims to describe students' creative thinking skills in science learning using the RADEC learning model. Based on the results of research that has been carried out, the use of the RADEC learning model in improving creative thinking skills is very good and quite effective in application. This is proven by the student responses in the survey results showing an average percentage of 62%. There are difficulties in creative thinking ability tests. The difficulties experienced by students are in the flexible thinking indicator because students are only able to give one answer, students do not dare to ask questions and students are still

fixated on using tools according to their function. This is due to a lack of self-confidence in students. Based on learning outcomes and student responses, the results show that the RADEC learning model is able to help and overcome the difficulties students experience.

6. REFERENCES

- Borualogo, I. S., & Gumilang, E. (2019). Kasus Perundungan Anak di Jawa Barat: Temuan Awal Children's Worlds Survey di Indonesia. *Psymphatic : Jurnal Ilmiah Psikologi*, 6(1), 15–30. <https://doi.org/10.15575/psy.v6i1.4439>
- Chairunnisa, C. C., Prihantini, & Sukardi, R. R. (2022). Model Read, Answer, Discuss, Explain, and Create untuk Meningkatkan Hasil Belajar IPS Siswa Pada Pembelajaran Daring. *Jurnal Educatio FKIP UNMA*, 8(1), 151–156. <https://doi.org/10.31949/educatio.v8i1.1819>
- Dihni, N., Erman, & Sari, D. A. P. (2022). *Pembelajaran IPA dengan Model Inkuiri pada Masa Pandemi Covid-19*. 10(1), 69–74.
- Fakhriyani, D. V. (2016). Pengembangan Kreativitas Anak Usia Dini. *Wacana Didaktika*, 4(2), 193–200. <https://doi.org/10.31102/wacanadidaktika.4.2.193-200>
- Kelana, J. B., Sopandi, W., Firdaus, A. R., Maulana, Y., Fasha, L. H., & Fiteriani, I. (2022). Kemampuan Guru Sekolah Dasar Dalam Membuat Pertanyaan Pra Pembelajaran Menggunakan Model Radece. *Jurnal Cakrawala Pendas*, 8(4), 1171–1180. <https://doi.org/10.31949/jcp.v8i4.2688>
- Moma, L. (2015). Pengembangan Instrumen Berpikir Kreatif Matematis Untuk Siswa SMP. *Jurnal Matematika Dan Pendidikan Matematika*, 4(1), 27–41.
- Prasetyo, A. D., & Mubarakah, L. (2014). Berpikir Kreatif Siswa Dalam Penerapan Model Pembelajaran Berdasar Masalah Matematika. *Jurnal Pendidikan Matematika STKIP PGRI Sidoarjo*, 2(1), 9–18.
- Pratama, Y. A., Sopandi, W., Hidayah, Y., & Trihatusti, M. (2020). Pengaruh Model Pembelajaran RADEC Terhadap Keterampilan Berpikir Tingkat Tinggi Siswa Sekolah Dasar. *JINoP (Jurnal Inovasi Pembelajaran)*, 6(2), 191–203. <https://doi.org/10.22219/jinop.v6i2.12653>
- Rahmawati, R. A. (2022). Penerapan Metode Inkuiri Untuk Meningkatkan Kemampuan Berpikir Kreatif Siswa Dalam Pembelajaran IPS. *Repository Upi Edupi Edu*, 1–5.
- Sari Hidayat, R. (2022). Penerapan Model Pembelajaran Discovery Learning Untuk Meningkatkan Kemampuan Berpikir Kreatif Peserta Didik Sekolah Dasar Universitas Pendidikan Indonesia. *Repository Upi Edu*, 1–6.
- Setiawan, D., Sopandi, W., & Hartati, T. (2019). Kemampuan Menulis Teks Eksplanasi dan Penguasaan Konsep Siswa Sekolah Dasar Melalui Implementasi Model Pembelajaran RADEC. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, 9(2), 130. <https://doi.org/10.25273/pe.v9i2.4922>
- Sopandi, W., Atep, S., Restiana, R., Sutinah, C., & Dkk. (2021). *Model Pembelajaran RADEC Teori dan Implementasi di Sekolah*. UPI PRESS.
- Sugiyono. (2015). *Metode Penelitian Pendidikan*. Penerbit Alfabeta.
- Teviana, F., & Yusiana, M. A. (2012). Pola Asuh Orang Tua terhadap Tingkat Kreativitas Anak. *Jurnal STIKES Kediri*, 5, 48–61.
- Wiyono, B. H., & Budhi, W. (2018). Pengaruh Metode Pembelajaran CTL Terhadap Hasil Belajar Ipa Siswa Kelas VIII Ditinjau Dari Kemampuan Berkomunikasi. *Natural: Jurnal Ilmiah Pendidikan IPA*, 5(1), 11. <https://doi.org/10.30738/natural.v5i1.2561>