

# Analysis of Emotional Intelligence of Class V Students Through the RADEC Learning Model

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**Abstract.** Social conflicts such as bullying, anti-patience, and individualistic attitudes among elementary school students are caused by students' lack of emotional intelligence. This study aimed to analyze the emotional intelligence of grade 5 elementary school students through the RADEC learning model. This study uses a qualitative approach with a descriptive analysis method. The instruments used were student activity observation sheets, student interviews, and documentation of learning activities using the RADEC model. The data analysis is data reduction, presentation, describing, and verifying conclusions. The participants in this study were 29 grade 5 students at one of the public elementary schools in the city of Bandung. Based on the research, it can be concluded that emotional intelligence can be grown through the RADEC learning model. Refers to the five elements of emotional intelligence possessed by students, namely self-awareness, which is shown by recognizing the emotions being felt. Managing emotions is demonstrated by knowing the response that must be given to an event, utilizing emotions productively, which is characterized by understanding the attitude that must be done towards a phenomenon, empathy, which is shown by caring for others, and fostering relationships which are demonstrated by liking interactions with other people.

**Keywords:** Emotional intelligence, RADEC model.

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## INTRODUCTION

The era of revolution 4.0 brought significant changes to human life (Tangahu, 2021). The unstoppable advancement of technology has its impact on each individual. One of the most noticeable is the increase in individualism because most people focus more on gadgets than on direct interactions (Abror, Sofia, & Sure, 2020). Besides that, the recent COVID-19 pandemic has made things even more complicated. Social restrictions and the rules of staying at home for a long period brought significant changes to social skills (Banerjee & Rai, 2020). The decline in social skills, especially among elementary school students, can cause problems of its own, such as bullying, anti-patience, fights, and various other social conflicts (Dahlena & Mulyana, 2021). Social skills are closely related to emotional intelligence (Agustini, Sujana, & Putra, 2019).

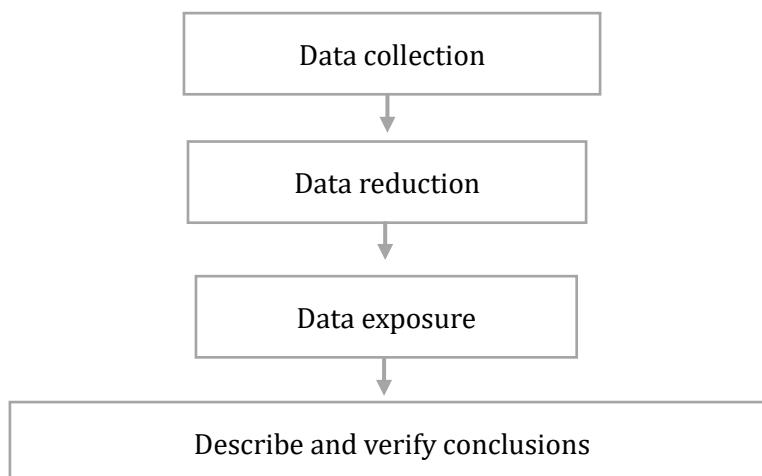
Emotional intelligence is the ability to control one's feelings as well as the feelings of others and to be able to use them to direct one's thoughts and actions (Salovey & Mayer, 1990). In practice in schools, one way to cultivate emotional intelligence is to create a learning environment that can make students interact and collaborate with their friends to grow the various expected emotional intelligence can be developed (Elias & Weissberg, 2009). In this study, the RADEC learning model was used as an alternative to facilitate learning that can foster the emotional intelligence of elementary school students. The RADEC learning model has five stages: Read, Answer, Discuss, Explain, and Create (Sopandi, et al., 2021). Based on the five stages of The RADEC learning model, students are encouraged to learn and collaborate independently. In previous research, the RADEC model has been used as a learning model that can bring out students' cognitive and social skills. It is evidenced by a study conducted by Sukmawati, Sopandi, & Sujana (2020), which revealed that RADEC improved student learning outcomes in the material on the human respiratory system. Then, Andini & Fitria (2021) suggested the RADEC model's effect on elementary school students learning outcomes on the theme of our friend's environment. Pratama, Sopandi, & Hidayah (2019) stated that the teacher's approach to learning plays a role in improving critical thinking skills. Teachers need to use learning models to stimulate students' necessary thinking skills. Agustin, Pratama, Sopandi, & Rosidah (2021) put forward that the RADEC learning model has a more

positive effect on increasing student HOTS in the Elementary Science Material Deepening course than the Inquiry learning model.

Furthermore, Sukmawati, Sopandi, Sujana, & Muharam (2021) revealed that the RADEC learning model could bring out aspects of the character of elementary school students, such as religious, nationalist, independent, and cooperative attitudes. Based on this, it was found that there was very little research using the RADEC learning model that focused on students' emotional intelligence, so this study aimed to analyze the emotional intelligence of grade 5 elementary school students through the RADEC learning model. The benefits of this research are as a reference and a basis for future researchers who will conduct similar research.

## METHOD

This study uses a qualitative approach with a descriptive analysis method. The descriptive analysis involves direct observation of a target's behavior in a natural (or naturalistic) context to gather information about contiguous and potentially relevant environmental events without any experimental manipulation. That is, the descriptive analysis identifies events correlated with the occurrence of some target response. Descriptive analysis is usually used as part of a comprehensive functional assessment of problem behavior before conducting available experimental analysis (Sloman, 2010). The instruments used were student activity observation sheets, student interviews, and documentation of learning activities using the RADEC model. Data analysis included reduction, presentation, describing, and verifying conclusions (Malik & Hamied, 2016). In the analysis phase, the first step is data collection. Data were collected regarding the instruments used, namely student activity observation sheets, student interviews, and documentation of learning activities using the RADEC model. Furthermore, the reduction stage is carried out to select or classify data. Only the data needed to answer the research question through this stage will be chosen. After the data is reduced, it is systematically arranged to be easy to understand, thus providing the possibility of conclusions. The last step is to describe and verify the findings. This stage aims to find the meaning of the data collected by looking for relationships, similarities, or differences to conclude answers to existing problems. The following are the analysis steps carried out:



**Figure 1.** Data Analysis

Then, data verification was carried out utilizing peer debriefing, in which the researcher explored the research design, data collection process, and data analysis with the parties involved. (Figg, Wenrick, Youker, Heilman, & Schneider, 2010). In this study, peer debriefing was carried out with class teachers so that the data obtained could be accounted for. The participants in this study were 29 grade 5 students at one of the public elementary schools in the city of Bandung. The research was carried out throughout three learning meetings.

## RESULTS

Goleman (2002, p. 63 in Maitrianti, 2021) mentions there are five aspects of emotional intelligence, which is a combination of each intrapersonal intelligence and interpersonal intelligence, namely self-awareness, self-regulation, motivation, empathy, and social skills. In detail, the elements or indicators of emotional intelligence can be seen in the following table (Syamsu Yusuf, 2014, p. 240, in Maitrianti, 2021).

**Table 1.** Elements of Emotional Intelligence

<b>1. Self-awareness</b>	a. Recognize and feel your own emotions b. Understand the factors that cause feelings that arise c. Recognize the influence of emotions on actions
<b>2. Manage emotions</b>	a. Be tolerant of frustration b. Able to control anger better c. Can control aggressive behavior that damages self and others d. Have positive feelings about yourself and others e. Have the ability to deal with stress f. Can reduce feelings of loneliness and anxiety
<b>3. Make productive use of emotions</b>	a. Have a sense of responsibility b. Able to focus on the task at hand c. Don't be impulsive
<b>4. Empathy</b>	a. Able to accept other people's points of view b. Have sensitivity to other people's feelings c. Able to listen to others
<b>5. Build relationships</b>	a. Understand the importance of building relationships with others b. Can resolve conflicts with others c. Have the ability to communicate with others d. Having a friendly attitude or easy to get along with other people. e. Have a considerate attitude f. Have concern for the interests of others g. Can live in harmony with the group h. Be happy to share feelings and cooperate i. Be democratic in dealing with other people.

Then, learning activities using the RADEC learning model are used as an alternative to developing students' emotional intelligence. Learning is carried out in one of the public elementary schools in the city of Bandung. During the activity, the teacher applies the five stages of the RADEC model (Sopandi, et al., 2021) as follows:

**Table 2.** Phases of the RADEC Learning Model

<i>Settings of the RADEC Learning Model</i>	<i>Action</i>
<i>Read</i>	The teacher gives students reading resources before starting learning in class
<i>Answer</i>	Students answer the questions contained in the student worksheet
<i>Discuss</i>	Students discuss the results of the answers filled in student worksheets
<i>Explain</i>	Students explain the results of their discussion

<b>Settings of the RADEC Learning Model</b>	<b>Action</b>
<i>Create</i>	Students make a work based on the results of their discussion

During the learning process, students who had previously been divided into small groups worked together to answer the questions that had been given and collaborated in doing work. Based on observations made by researchers in the discuss, explain, and create activities, indicators of emotional intelligence can be seen, especially in the aspects of empathy and building relationships, namely as follows:

**Table 3.** Achievement of Emotional Intelligence through the RADEC Learning Model

<b>Observed aspect</b>	<b>Achievement Indicator</b>	<b>Observed</b>	
		<b>Yes</b>	<b>Not</b>
<i>Empathy</i>	a. Students can accept other people's points of view b. Students can listen to other people	✓ ✓	
<i>Build relationships</i>	a. Students can resolve conflicts with others b. Students can communicate with others c. Students have a friendly attitude or quickly get along with other people. d. Students have concern for the interests of others e. Students can live in harmony with the group f. Students are happy to share feelings and work together g. Students behave democratically in dealing with other people.	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	

Based on these data, it can be interpreted that the RADEC learning model can foster emotional intelligence. The same thing was expressed by Sukmawati, Sopandi, Sujana, & Muharam (2021), who saw that the RADEC learning model could bring out positive characters in students.

## DISCUSSION

During the RADEC learning process, students are given freedom and flexibility in learning and interacting. It also triggers their emotional intelligence so that it is increasingly honed. The following is the result of closed interviews with students referring to indicators of emotional intelligence (Syamsu Yusuf, 2014, p. 240, in Maitrianti, 2021) after using the RADEC model.

### a. Self-awareness

The following is a presentation of student answers:

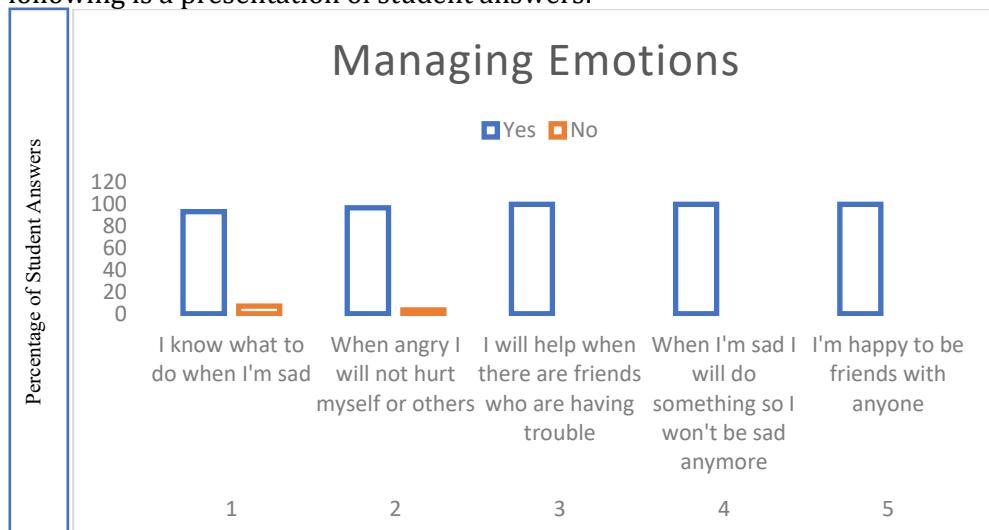


**Figure 2.** Self-Awareness Data Diagram

Based on the data obtained, all students stated that they had self-awareness regarding the emotions they felt with the acquisition of 100% data for "Yes" answers on each of the indicators asked. Emotions have been defined as 'sudden, transient agitation caused by the acute experience of fear, surprise, joy, etc.' (Larousse Dictionary, 1990, in Cabanac, 2022) or a mental feeling or affection (e.g., pain, desire, wish, etc.) as distinct from cognition or volition' (Oxford English Dictionary, 1987, in Cabanac, 2022).

b. Managing Emotions

The following is a presentation of student answers:

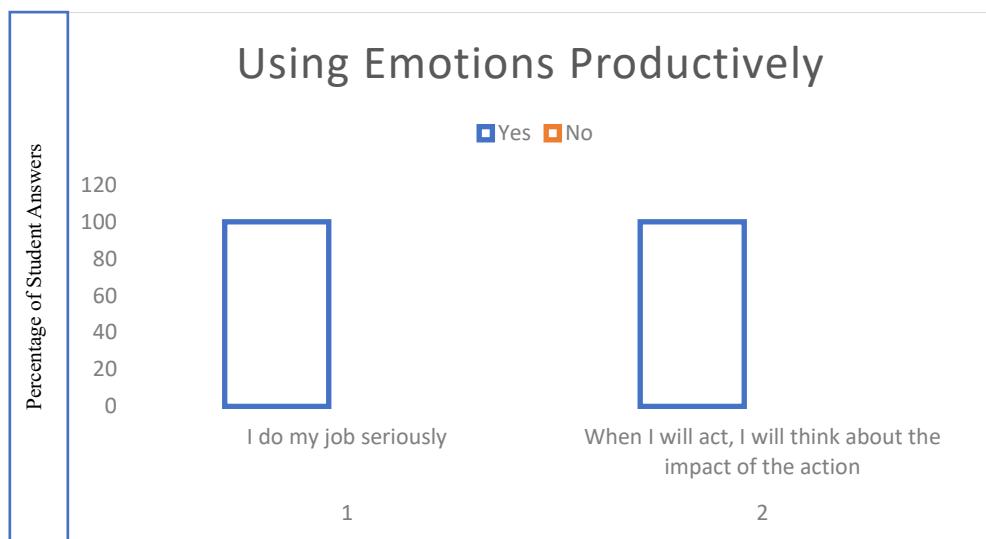


**Figure 3.** Data Diagram for Managing Emotions

The next aspect of emotional intelligence is managing emotions. Based on the data above, it is found that the average answer "Yes" to each indicator question reaches more than 90%, so it can be concluded that students can manage their emotions well. The purpose of managing emotions is that emotional management revolves around emotion regulation—that is, the individual's ability to connect to or disconnect from emotions depending on their use in a particular situation (Jordan & Troth, 2009).

c. Using Emotions Productively

The following is a presentation of student answers:



**Figure 4.** Data Diagram Using Emotions Productively

The aspect of using emotions productively means that students can use the emotions they feel into something positive. In practice, this can be related to the sense of responsibility that students have and the awareness that every action taken always has consequences. Based on the percentage of student answers, it can be concluded that students can use their emotions productively.

d. Empathy

The following is a presentation of student answers:

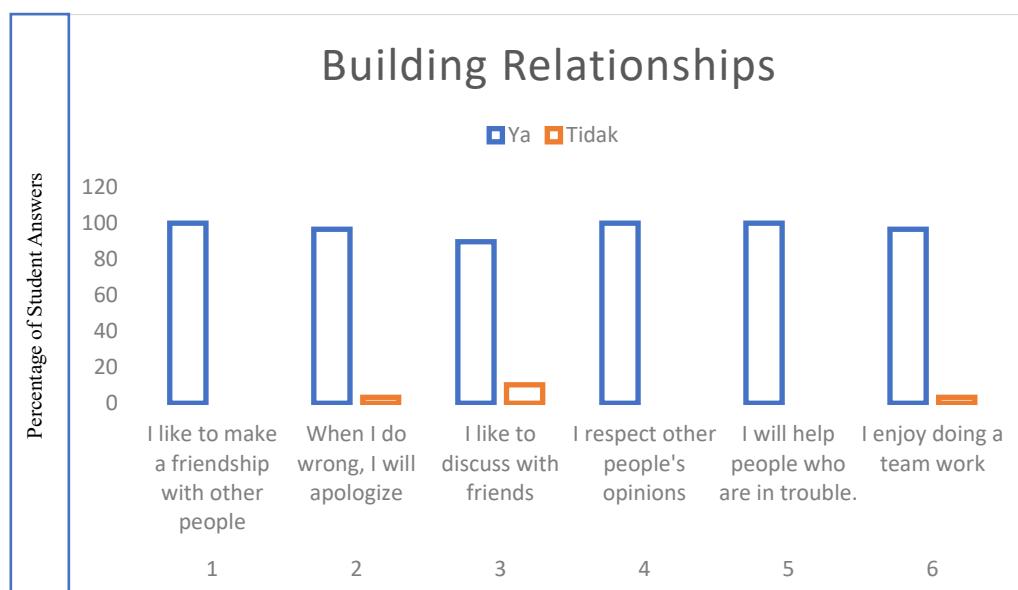


**Figure 5.** Empathy Data Diagram

The aspect of empathy is an aspect that is highly observed when learning using the RADEC model is used. Empathy is an emotional regulation process used to calm personal pressure on other people's pain or discomfort, allowing them to mobilize compassion and behavior to help others (Decety & Lamm, 2009 in Elliott, Bohart, Watson, & S. Greenberg, 2011). This study showed this by the attitude of students who were able to work together and listen to each other. It was also following the acquisition of data which showed that all students had concern for their friends.

e. Build relationships

The following is a presentation of student answers:



**Figure 6.** Relationship Data Diagram

The last aspect of the element of emotional intelligence is building relationships. This aspect is closely related to how students can interact with each other. Based on the data obtained, almost all students like to interact and build relationships with their friends, which means that through learning that demands collaboration, the development of this aspect will be better.

## CONCLUSION

Emotional intelligence is the root of social skills, so to create students with good social skills, developing emotional intelligence is a must. The RADEC learning model proves that it can develop students' emotional intelligence, especially in the aspects of empathy and building relationships. It is because the RADEC learning model encourages students to collaborate and interact. Besides that, based on the results of data collection, it can be concluded that other emotional intelligence can also be grown through the RADEC learning model, which refers to the five elements of emotional intelligence possessed by students, namely having self-awareness which is shown by recognizing the emotions that are being felt; managing emotions shown by knowing the response that must be given to an event; make use of emotions productively which is marked by knowing the attitude that must be taken towards a phenomenon; empathy shown by caring attitude towards others; build relationships that are demonstrated by liking interactions with others.

## REFERENCES

- Abror, R. H., Sofia, N., & Sure, S. R. (2020). Individualism in Gadget Era: Happiness Among Generation. *International Journal of Psychosocial Rehabilitation*, Vol.24, Issue 09, 3992-3997.
- Agustin, M., Pratama, Y. A., Sopandi, W., & Rosidah, I. (2021). Pengaruh Model Pembelajaran RADEC terhadap Keterampilan Berpikir Tingkat Tinggi Mahasiswa PGSD. *Jurnal Cakrawala Pendas*, Vol. 7 No. 1, 140-152. <http://dx.doi.org/10.31949/jcp.v6i1.2672>.
- Agustini, N. K., Sujana, I. w., & Putra, I. K. (2019). Korelasi Antara Kecerdasan Emosional dengan Interaksi Sosial Siswa Kelas V SD Gugus VI Pangeran Diponegiri Denpasar Barat. *JP2*, Vol 2 No 1, 131-140, <https://doi.org/10.23887/jp2.v2i1.17620>.
- Andini, S. R., & Fitria, Y. (2021). Pengaruh Model RADEC pada Pembelajaran Tematik Terhadap Hasil Belajar Peserta Didik Sekolah Dasar. *Jurnal Basicedu*, Vol 5, No 3, 1435 -1443. <https://doi.org/10.31004/basicedu.v5i3.960>.

- Banerjee, D., & Rai, M. (2020). Social isolation in Covid-19: The impact of loneliness. *International Journal of Social Psychiatry, Volume 66, Issue 6, 525-527*, <https://doi.org/10.1177/0020764020922269>.
- Cabanac, M. (2022). What is emotion? *Behavioral Processes, Volume 60, Issue 2, 69-83.* [https://doi.org/10.1016/S0376-6357\(02\)00078-5](https://doi.org/10.1016/S0376-6357(02)00078-5).
- Dahlena, A., & Mulyana, E. (2021). Eksistensi Social Behavior Dalam Pembelajaran IPS Sebagai Penguanan Keterampilan Peserta Didik di Abad-21. *Social Science Educational Research, Volume 2 No. 1, 24-30.* <https://ejournal.unesa.ac.id/index.php/sosearch>.
- Elias, M. J., & Weissberg, R. P. (2009). Primary Prevention: Educational Approaches to Enhance Social and Emotional Learning. *Journal of School Health, Volume 70, Issue 5, 186-190,* <https://doi.org/10.1111/j.1746-1561.2000.tb06470.x>.
- Elliott, R., Bohart, A. C., Watson, J. C., & S.Greenberg, L. (2011). Empathy. *Psychotherapy, 48(1), 43-49.* <https://doi.org/10.1037/a0022187>.
- Figg, C., Wenrick, M., Youker, C., Heilman, J., & Schneider, C. (2010). Implications and Benefits of a Long-Term Peer Debriefing Experience on Teacher Researchers. *Brock Education, Volume 19, No. 1, 20-35.* DOI: 10.26522/brocked.v19i1.118.
- Jordan, P. J., & Troth, A. C. (2009). Managing Emotions During Team Problem Solving: Emotional Intelligence and Conflict Resolution. *Human Performance, Volume 17, Issue 2, 195-218.* [https://doi.org/10.1207/s15327043hup1702\\_4](https://doi.org/10.1207/s15327043hup1702_4).
- Maitrianti, C. (2021). Hubungan antara Kecerdasan Intrapersonal dengan Kecerdasan Emosional. *Mudarrisuna: Media Kajian Pendidikan Agama Islam, 291-305,* <http://dx.doi.org/10.22373/jm.v11i2.8709>.
- Malik, R. S., & Hamied, F. A. (2016). *RESEARCH METHODS: A Guide For First Time Researchers.* Bandung: UPI PRESS.
- Pratama, Y. A., Sopandi, W., & Hidayah, Y. (2019). RADEC Learning Model (Read-Answer-Discuss-Explain And Create): The Importance of Building Critical Thinking Skills In Indonesian Context. *International Journal for Educational and Vocation, Vol 1, No 2, 109-115.* <https://doi.org/10.29103/ijevs.v1i2.1379>.
- Salovey, P., & Mayer, J. D. (1990). Emotional Intelligence. *Imagination, Cognition, and Personality, Volume 9, Issue 3, 185-211,* <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>.
- Sloman, K. N. (2010). Research trends in descriptive analysis. *The Behavior Analyst Today, Volume 11, Issue 1, 20-35,* <https://doi.org/10.1037/h0100686>.
- Sopandi, W., Sujana, A., Sukardi, R. R., Sutinah, C., Yanuar, Y., Imran, M. E., . . . Lestari, H. (2021). *Model Pembelajaran RADEC: Teori & Implementasi di Sekolah.* Bandung: UPI Press.
- Sukmawati, D., Sopandi, W., & Sujana, A. (2020). The Application of Read-Answer-Discuss-Explain-and Create (Radec) Models to Improve Student Learning Outcomes in Class V Elementary School on Human Respiratory System. *International Conference on Elementary Education, 2(1)* (p. 1734-1742). Bandung: <http://proceedings.upi.edu/index.php/icee/article/view/801>.
- Sukmawati, D., Sopandi, W., Sujana, A., & Muharam, A. (2021). Kemunculan Aspek Karakter Siswa SD melalui Pembelajaran RADEC dengan Menggunakan WhatsApp pada Materi Siklus Air. *Jurnal Basicedu, Vol 5, No 4, 1787-1798.* <https://doi.org/10.31004/basicedu.v5i4.993>.
- Tangahu, W. (2021). Modern Education in Revolution 4.0. *IJIERT, 1-5.*