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Development of Critical Thinking Skills Based on the RADEC Model to Shape Students' Courteous

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Abstract

This study aims to obtain empirical data on the Development of Critical Thinking Skills Based on the RADEC Model to Shape the Courteous Behavior of 10th Grade Students at SMKN-2 Bandung. The method used is Research and Development, a development research approach. The subjects of this study are 28 students from 10th grade at SMKN-2 Bandung, with the Civics Education teacher and an IT expert serving as key informants. Data collection techniques used in this study include test and non-test methods. The results of this study indicate that: (1) The development of critical thinking skills based on the RADEC model is suitable for shaping students' courteous behavior. This is based on the analysis results, which show a significance value of 0.016 < 0.05. (2) The development of students' critical thinking skills based on the RADEC model is effective in promoting courteous behavior. This conclusion is based on the experimental class's average critical thinking skill score (post-test) of 87.14, compared to the control class's average score of 80.21. The data analysis reveals that the average critical thinking skill score (post-test) in the experimental class is higher than that in the control class.

Keywords: Critical Thinking Skills, RADEC Model, Courteous Behavior

1 INTRODUCTION

Critical thinking is one of the 21st-century skills that students need to master in order to address various personal and social issues in their lives. Critical thinking is defined as reflective and reasoned thinking in decision-making (Fajari & Chumdari, 2020). According to Khaeruddin (2013), critical thinking skills are essential for students to develop in order to be competitive in the 21st century. Based on this explanation, critical thinking skills are highly necessary, and there are many commands from Allah in the Qur'an encouraging us to think. For example, in Surah Al-Imran, verse 65: 'O People of the Scripture, why do you argue about Abraham while the Torah and the Gospel were not revealed until after him?' And in Surah Al-An'am, verse 32: 'And the worldly life is not but amusement and diversion.

The verse above demonstrates that Allah SWT commands us to always think critically, reminding us that life in this world is merely a deception, and indeed the hereafter is far better for those who are mindful. In Surah As-Saffat, verse 70, if we bring this message into the teaching and learning context—where parents in this verse can be seen as teachers and followers as students—students are not expected to hastily follow or immediately accept the information presented by teachers. Instead, they should carefully consider it (think critically) to truly understand that the information is accurate. Critical thinking skills are essential for each individual, not only because Allah instructs us to think critically, but also to meet the challenges and demands of 21st-century education.

Critical thinking is the ability to think rationally and reflectively, enabling one to decide what to do or believe (Wijayanti, Badarudin & Hawanti, 2020). As a thought process, critical

thinking represents quality thinking that meets criteria or standards of adequacy (Gelerstein et al., 2016; Tanti et al., 2020). It involves applying concepts, analyzing opinions, synthesizing and evaluating information, and drawing conclusions (Liesa-Orús et al., 2020; Yuliati & Saputra, 2019). Critical thinking is essential for problem-solving and making effective decisions in everyday life (Tempelaar, 2017).

The development of critical thinking skills can be fostered through education, with teachers playing a crucial role. Teachers need to implement learning content, processes, and assessment methods to train critical thinking, enabling students to gain confidence in expressing their opinions and applying critical thinking skills (Ortega-Sánchez et al., 2020). Teachers are also required to be innovative in their use of media, strategies, methods, and learning models to enhance students' critical thinking abilities. The use of diverse methods and models is often more appealing to students, as it can invigorate the learning process and bridge various learning styles to better absorb the material (Unaenah & Rahmah, 2019).

Given the importance of critical thinking skills, it is essential to instill critical thinking from an early age at the elementary school level. This provides students with a foundation in critical thinking that can be applied to tasks and problem-solving in daily life (Lestari, Setiawan & Siskandar, 2020). As students progress to higher levels, such as junior high, senior high, and university, they will then face less difficulty in further developing these skills. However, education in Indonesia has not yet integrated 21st-century thinking skills into its curriculum. Studies indicate that Indonesia ranked 64th out of 65 countries in 2012 (OECD, 2013) and 64th out of 72 countries in 2015 (OECD, 2017) in higher-order thinking skills. These results suggest that Indonesian students' thinking skills, particularly critical thinking, remain in the low category (Kusuma et al., 2017). Addressing this issue requires innovative learning models in Indonesia to foster and develop students' skills, especially in critical thinking. Consequently, the government recommends using various innovative international learning models in educational activities.

However, in practice, teachers find it challenging to implement these learning models, resulting in limited changes in the learning process. This is evidenced by international comparative studies showing that Indonesian students' achievements have been unsatisfactory in areas such as mathematics, science, and reading (Pratama et al., 2019). These international comparison results indicate that the current learning process has not yet equipped students with the skills needed in today's world. They also highlight the need to improve the learning process in Indonesia. According to Sopandi (2019), innovative learning models developed by foreign experts can indeed foster various 21st-century skills. However, if these foreign models are viewed as vehicles, they cannot effectively operate in Indonesia due to incompatibility with the local "roads." Therefore, Sopandi (2017) offers an alternative solution for implementing effective learning in Indonesia through the Read-Answer-Discuss-Explain-and-Create (RADEC) model.

Sopandi et al. (2019) propose that the RADEC learning model has several characteristics that support not only concept understanding but also the development of 21st-century skills, including students' critical thinking abilities. These characteristics include: 1) the RADEC model motivates students to actively engage in learning activities, 2) it encourages students to learn independently, 3) it contextualizes what students already know with the material being studied, 4) it connects the learning material with real-life applications, 5) it emphasizes student-centered learning, fostering an active learning environment where students ask questions, discuss, propose ideas, and summarize the material, and 6) it provides pre-learning tasks for students to gain a deeper understanding of the subject matter before instruction begins.

Critical thinking is one of the 21st-century skills that students need to master in order to face various personal and social problems in their lives. Critical thinking skills are the ability to think reflectively and reason in making decisions (Fajari & Chumdari; 2020). According to Khaeruddin (2013) critical thinking skills are skills that must be developed for students to be able to compete in the 21st century. Based on this explanation, critical thinking skills are very much needed and there are many commands from Allah SWT in

the following Qur'an verses in the Qur'an that order us to think: Qs. Al-Imran verse 65: "Meaning: O People of the Book, why do you dispute about Abraham, when the Torah and the Gospel were not revealed except after Abraham. Qs. Al-An'am verse 32: "Meaning: And the life of this world is nothing but play and amusement. The verse above shows that Allah SWT orders us to always think and life in this world is nothing but deception, and indeed the home of the hereafter is better for those who are pious. Qs. As-Saffat verse 70. Qs. As-Saffat verse 70. When we draw the verse into the realm of the teaching and learning process where the parents in the verse are teachers and those who follow them are students, then students do not have to rush to follow or immediately accept the information conveyed by the teacher but must think carefully (think critically) so that students understand that this information is true.

Critical thinking skills need to be possessed by every individual, not only because of Allah's command to always think, but also to answer the challenges and demands of 21st century learning. Critical thinking is the ability to think rationally and reflectively so that one can decide what to do or believe (Wijayanti, Badarudin & Hawanti; 2020). Critical thinking as a thought process is good thinking that meets the criteria or standards of adequacy (Gelerstein et al., 2016; Tanti et al., 2020). Critical thinking as a thought process to apply concepts, analyze opinions, synthesize and evaluate information and make conclusions (Liesa-Orús et al., 2020; Yuliati & Saputra, 2019). Critical thinking is very necessary to solve problems to make effective decisions in everyday life (Tempelaar, 2017).

The development of critical thinking skills can be done through education, in this case teachers play an important role. Teachers need to apply learning content, learning processes, and assessment methods in training critical thinking, so that students can be confident in expressing opinions and applying critical thinking skills (Ortega-Sánchez et al., 2020). Teachers are also required to be innovative in using media, strategies, methods and learning models, so that they can develop students' critical thinking skills. The use of varied methods and models will be more in demand by students, because it can stimulate the learning process and can bridge students' learning styles in absorbing learning materials (Unaenah & Rahmah, 2019).

Given that critical thinking skills are very important, critical thinking needs to be instilled from an early age at the elementary school level, so that students have a basis for critical thinking to be applied in completing a task or problem in everyday life (Lestari, Setiawan & Siskandar; 2020). So that when moving up to a higher level such as junior high school, high school or college, students do not have difficulty practicing their critical thinking skills. However, learning in Indonesia has not included 21st century thinking skills in it. This can be shown from the study data that Indonesia was ranked 64th out of 65 countries in 2012 (OECD, 2013); and ranked 64th out of 72 countries in 2015 (OECD, 2017) based on high-level thinking skills, these results illustrate that Indonesian students' thinking skills, one of which is critical thinking, are still in the low category (Kusuma et al., 2017). Seeing these problems, Indonesia needs an innovative learning model to instill and develop students' abilities, especially in critical thinking skills. Therefore, the government recommends using various foreign innovative learning models in learning activities. However, in the field, teachers have difficulty implementing these learning models, so that the learning process does not experience many changes. This can be shown from the results of an international comparative study showing that Indonesian students' achievements have not been satisfactory, both in mathematics, natural sciences, and reading (Pratama et al., 2019).

The results of the international comparative study provide an indication that the learning process so far has not been able to equip students with the various skills needed in today's era. The results of the comparative study also provide an indication of the need to improve the learning process in Indonesia. According to Sopandi (2019), innovative learning models created by foreign experts can actually develop various skills needed in the 21st century, but if these innovative learning models from abroad are illustrated as vehicles, these vehicles cannot be used in Indonesia due to their incompatibility with the roads in Indonesia. Therefore, Sopandi (2017) provides another alternative that can

provide a solution in implementing learning in Indonesia through the Read-Answer-Discuss-Explain - and Create (RADEC) learning model.

Sopandi et al (2019), stated that the RADEC learning model has several learning characteristics that can build not only conceptual understanding, but also 21st century skills and one of them is students' critical thinking skills. These characteristics include: 1) the RADEC learning model can motivate students to be actively involved in learning activities, 2) the RADEC learning model can direct students to be able to learn independently, 3) the RADEC learning model can contextualize something that students know with the material they are studying, 4) the RADEC learning model can connect the learning material learned by applying it to real life, 5) the RADEC learning model emphasizes student-centered learning so that active learning is created in asking questions, discussing, proposing ideas, and concluding related to the material that has been studied, 6) the RADEC learning model provides students with the opportunity before learning to be given pre-learning tasks to first understand the subject matter in depth.

Research related to the application of the RADEC model has been conducted by several researchers recently, among the results of the research conducted by elementary school students' mastery of concepts on the topic of the water cycle and the human respiratory system increased significantly after the application of the RADEC learning model. The results of research on RADEC conducted by several researchers at the elementary school level, namely the RADEC model can improve mastery of concepts in human respiration material (Setiawan et al., 2020), improve critical thinking skills in the material on the properties of light (Karlina et al., 2020) and in the context of Indonesian (Pratama et al., 2019), improve creative thinking skills and high-level thinking in energy learning (Sopandi, 2017) and develop collaboration and communication skills (Sukmawati et al., 2020). Several studies above show that the RADEC model is very effective in improving concept mastery, critical and creative thinking skills and developing students' collaborative and communication attitudes.

According to Sopandi (2019) in the Indonesian context, we cannot deny that the learning models that are mostly adopted from the west are not suitable for application in Indonesia. Not only because the students are different (literacy levels, environment, etc.), innovative learning models often take a long time". So a learning model is needed that is in accordance with the Indonesian context. In this study, there are at least two reasons why this study needs to be done, first, the researcher tries to provide an alternative solution regarding the learning model that is suitable to be applied and the second is to develop critical thinking skills and PKn learning outcomes, namely through the RADEC learning model. Sopandi (2019) argues that teachers do not understand the syntax of innovative learning models, so the impact is that conventional learning models remain the mainstay of teachers. Classroom activities are dominated by assignment and memorization systems, showing that the low involvement of students' thinking skills in learning. There are still many memorized materials in short-term memory, so that students' thinking skills in Indonesia are only at the level of remembering, restating, or referring without processing (recite) (Nugroho, 2018). The study has explained that students' critical thinking skills are weak and the variation in learning models is still minimal so that students are less active and their learning outcomes are less than satisfactory.

Based on several explanations, critical thinking skills are very much needed by students today. The RADEC model is an alternative that can be used and is in accordance with the facts in the field where the research took place. The RADEC model was first introduced by Mr. Sopandi at an international conference in Kuala Lumpur, Malaysia. The results of other studies have also proven that the RADEC model stimulates students' critical thinking skills, namely research conducted by (Adi Pratama, et al. (2019) in the syntax of the RADEC learning model, students must discuss and explain directly, to overcome problems we must utilize technology as stated by Agustin (2011): "Technology in education has a major impact on learning outcomes. The use of technology in learning can overcome limitations of space and time, disseminate information more widely, quickly, so that messages can be conveyed according to the desired learning objectives". The family environment, especially

parents, is the first place a child gets an education. The family is the first social group in social life. Within the family, it also determines their behavior towards others, in social life outside the family. If communication between parents within the family due to several things is not smooth or unnatural, in general their communication with the community is also unnatural, or disrupted (Soetarno; 1999).

Parents do not know the extent of their child's behavioral development and parents do not know whether the direction and guidance they give to their children is appropriate as needed. For that, effective communication is needed, especially by parents who need understanding, attention and acceptance of the environment towards their existence in an environment with various problems that must be resolved. Among today's teenagers, there are signs of deviation in behavior, namely; (1) increasing violence among teenagers, (2) use of bad language and words, (3) increasing self-destructive behavior, such as drug use and free sex, (4) increasingly blurred moral guidelines between good and bad, (5) declining work ethic, (6) decreasing respect for parents and teachers, (7) low sense of individual citizen responsibility, (8) mutual suspicion and hatred among each other (Ratna Megawati; 2002). The deviations committed among teenagers are a problem for the world of education, when some students behave differently. The emergence of symptoms of moral and ethical decline in teenagers is inevitably also related to the credibility and competence of educational circles. So that from among educators themselves, the idea emerged to revive moral education in the school curriculum.

With the existence of etiquette education (good manners), it is expected to be able to shape the character, behavior and attitude of students according to good etiquette, norms and customs, so that each student has a complete attitude and personality, and upholds the values of etiquette and humanitarian and social norms in general. Etiquette education (good manners) is an education that develops individuals with noble morals (Rakhmat; 1997). The noble value of the attitude of respect is not to impose one's own will and to have an attitude of solidarity that is manifested by an attitude of respect for others. Therefore, even though the lives of students are very diverse and diverse, we can create an atmosphere of calm, peace and harmony among students, but in reality their attitude in respecting others is still very low, this is indicated by the following indicators: 1) Speaking impolitely to older people. 2) Speaking rudely, unable to control his emotions if his feelings are offended by his friends, causing arguments. 3) Reluctant to greet when meeting, not implementing the culture of greeting. 4) Bad speech, easily venting anger. 5) Not respecting friends who are talking, not respecting other people's opinions and feeling that they are the most correct. 6) Not respecting their friends because they are considered the best and smartest. 7) Tend to pay less attention to the rules. Such as squeaking a motorbike exhaust loudly even though the surrounding area is disturbed by noise.

The above problems should not occur if the student has polite behavior. With polite behavior possessed by students, students will have an attitude of respect and can control themselves, all students, especially at SMK Negeri 2 Bandung City, will have an attitude of respect and an attitude of helping each other when experiencing difficulties and difficulties, each student has a moral obligation to each other such as respecting each other in life at school, home and society. Based on the statement above, an alternative solution is needed, one of which is to present a learning model that is easy to memorize the syntax and in accordance with the characteristics of teachers and the characteristics of students in Indonesia. The learning model is the RADEC learning model (Read-Answer-Discuss-Explain and Create) which was first introduced by Sopandi in (Lestari et al.)). The RADEC learning model is a learning model that uses its syntax as the name of the learning model itself, namely read, answer, discuss, explain, and create. Various studies on the RADEC learning model (Read-Answer-Discuss-Explain and Create) have been conducted on several subjects other than social studies, including science and Indonesian. Based on the results of the study, it shows that the RADEC learning model can improve critical thinking skills. Based on this, the researcher wants to conduct research on the development of critical thinking skills based on the RADEC model to improve learning outcomes on the material on moral norms in forming polite behavior in Class X of SMKN 2 Bandung City.

2 RESEARCH METHODS

Research Methods The method used is Research and Development (R&D), namely development research. The development model used in the study is the development model according to Sugiyono. The subjects of this study were students of class X SMKN-2 Bandung City with a total of 28 students as informants, and as informants were PPKn teachers and IT experts. The implementation of this research was carried out from July to October, odd semester of the 2024/2025 school year. The data collection techniques used in this study were test techniques and non-test techniques, namely tests to measure learning outcomes on norm material and observations to measure polite behavior, before being used, the test instrument was tested on respondents outside the sample to determine the validity and reliability of the instrument items. The next instrument is a questionnaire to determine the needs of teachers and students for the Development of Critical Thinking Skills based on the RADEC model, then there is also a questionnaire or validation questionnaire used to determine the assessment and opinions of the material validator and media validator regarding the Development of Critical Thinking Skills based on the RADEC model.

3 RESULT AND DISCUSSION

3.1 Critical Thinking Skills

Based on the results of the analysis, the significance value is 0.000 <0.05, which means that there is a difference in the critical thinking skills of class X students of SMKN 2 Kota Bandung who follow the RADEC learning model and those who follow the conventional learning model. In the experimental class, the average value of critical thinking skills (post test) reached 87.14 and in the control class, the average value of students' critical thinking skills reached 80.21. From the results of the data analysis, it is known that the average value of critical thinking skills (Post Test) in the experimental class is higher than the control class. This means that the experimental class has better critical thinking skills than the control class. The findings produced in this study are in line with the research conducted by Yoga, (Sopandi, & Hidayah; 2019).

With the title RADEC learning model (Read-Answer-Discuss-Explain and Create): The importance of building critical thinking skills in the context of Indonesian: This study produces one solution to be able to build critical thinking skills is to use the RADEC learning model (read-answer-discuss-explain and create). The approach in learning carried out by teachers plays a role in fostering critical thinking skills. The problem solver of critical thinking skills is the RADEC learning model because the syntax in the RADEC learning model contains reading activities (Read) where students dig up information from various sources, and answering (Answer) where students answer questions so that they are usually asked questions according to the Socrates question model. From the syntax it shows that (1) Student-centered, (2) Students define problems, (3) Students organize learning tasks, (3) Students create a work of problem solution, (4) The learning process is at the create stage. The syntax of the RADEC learning model encourages students to carry out various activities in learning such as reading, answering, discussing, explaining, and creating works so that learning is more varied, this is in accordance with Zamroni & Mahfudz, (2009:30)

There are four ways to improve critical thinking skills, namely: (1) certain learning models, (2) giving assignments to criticize books, (3) using stories, and, (4) using the Socrates question model. The RADEC learning model explores information from various sources, both books, other printed sources of information and other sources of information such as the internet, answers pre-learning questions, discusses answers to questions or assignments they have done in groups, student representatives explain essential concepts that they have mastered in front of the class, discuss creative thinking that they have

thought of independently at home, discuss ideas to realize it, by making reports, so that the process stimulates to improve students' thinking process skills, especially critical thinking skills, this is in line with the results of the study (Adi et al., 2019) which has proven that the RADEC model stimulates students' critical thinking skills. Based on the discussion above, the RADEC learning model has a significantly better influence compared to the conventional learning model on the critical thinking skills of class X students of SMKN-2 Kota Bandung.

Critical Thinking Skills and Simultaneous Learning Outcomes In this discussion, to find out the simultaneous differences in critical thinking skills and learning outcomes on moral norms material in grade X students of SMKN-2 Bandung City who follow the RADEC learning model and those who follow the conventional learning model. In the multivariate test table there is a statistical test, namely Pillai's trace, in the class column. The significance value is 0.000, where 0.000 <0.05 according to the criteria that H0 is rejected and Ha is accepted, so there are simultaneous differences in critical thinking skills and learning outcomes on moral norms material in grade X students of SMKN-2 Bandung City, who follow the RADEC learning model with those who follow the conventional learning model. The findings of this study indicate that there are simultaneous differences between the RADEC learning model and the conventional learning model on critical thinking skills and learning outcomes on moral norms material in grade X students of SMKN-2 Bandung City.

This is because RADEC learning always encourages students to be actively involved in the learning process, independently, this can be seen from the learning syntax and the activities of teachers and students during the RADEC learning process and this finding is in line with the results of research from Handayani, et al. (2019) that: (1) RADEC learning always encourages students to be actively involved in the learning process; (2) RADEC learning encourages students to learn independently; (3) RADEC learning always connects what students know with the material being studied; (4) RADEC learning connects the material being studied with real life or contemporary issues; (5) RADEC learning always provides opportunities for students to actively ask questions, discuss, submit investigation plans, and conclude the material being studied; (6) RADEC learning provides opportunities for students to study the material in depth through pre-learning assignments. In addition, theoretically, critical thinking skills have a close relationship with the learning outcomes obtained by students. In other words, a student who has high critical thinking skills will show better learning outcomes compared to students who have lower critical thinking skills. Data analysis proves that there is a significant correlation between critical thinking skills and student learning outcomes, namely the multicollinearity test obtained a perarson correlation value of 0.694. Critical thinking skills are related to learning outcomes, students who are able to think critically will not simply accept the information they get but first process it critically and creatively using deductive and inductive thinking patterns to form knowledge within themselves. Students who have high critical thinking skills will look for evidence and related sources to accept or reject the information they receive. The critical thinking skills possessed by students have an impact on the achievement of their learning outcomes. Observation Results of Students' Polite Behavior.

The assessment of students' polite behavior in this study was an observation conducted twice. The results of the first observation were carried out at the same time as the initial test (pre-test) was intended to see the students' initial polite behavior. While the second observation was carried out simultaneously with the final test (post-test) which has several uses, especially in seeing students' polite behavior. The following is a comparison graph of achievement indicators between students' initial polite behavior and students' polite behavior after being given treatment:

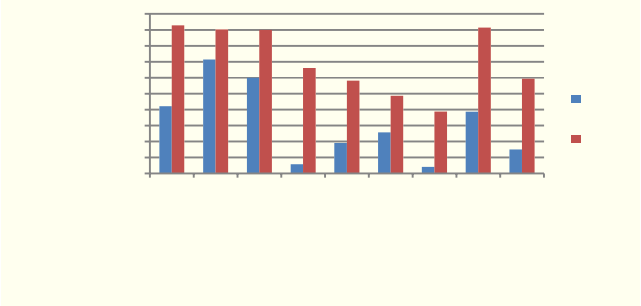

Figure 1. Bar Chart Comparing the Results of Observations of Student Courteous Behavior Before and After Treatment.

Description:
1. Do not use dirty, rude, and arrogant language
2. Do not interrupt conversations
3. Say thank you after receiving help from others
4. Have a 3S attitude (greet, smile, say hello)
5. Ask permission when entering someone else's room or using someone else's belongings
6. Respect elders
7. Wear uniforms neatly
8. Apologize when wrong
9. Receive everything with the right hand In the diagram above,

it can be seen that in the diagram before the treatment, the lowest percentage is the indicator of having a 3S attitude (greeting, smiling and saying hello) and wearing uniforms neatly, while the highest percentage is the indicator of not interrupting conversations. When viewed in the graph after the treatment, the lowest percentage is also the indicator of wearing uniforms neatly and the highest percentage is the indicator of apologizing when wrong. In the process assessment, it was carried out 4 times, each learning process was assessed for the process. The process assessment has 5 criteria to be assessed, the criteria include students' enthusiasm for learning, participation in group work, seriousness in completing assignments, answering teacher questions and recording teacher explanations. The results obtained from the assessment of the student learning process can be presented in the following diagram:

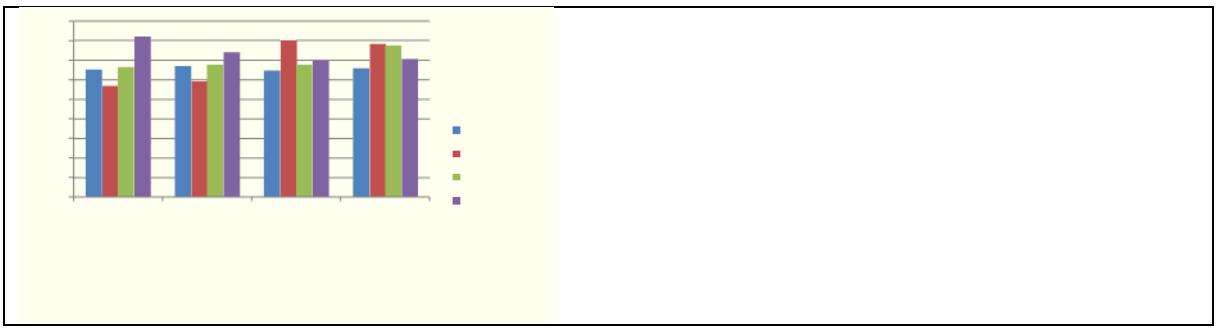

Figure 2. Percentage Bar Chart of Student Polite Behavior Assessment in the Learning Process

Based on the observation results in the diagram above, it can be seen that there is an increase in the percentage of each indicator of student polite behavior from the first meeting to the fourth meeting. In the indicator of student enthusiasm in learning, there was an increase from the first meeting to the fourth meeting, although there was a

decrease in the second meeting. In the first meeting, student enthusiasm in learning had 65.2%, the second meeting dropped to 57.2%, the third meeting rose to 66.8% and the last meeting had an average of 82.2% In the second indicator, namely student participation in group activities, there was also an increase. In the first meeting, students had an average of 66.8%, in the second meeting there was a slight decrease of 59.4%, in the third meeting there was a percentage of 68% and in the fourth meeting there was an increase in the percentage to 74.2%.

Based on the diagram above, the indicator of students' seriousness in completing tasks shows a significantly higher percentage in the second session compared to the first, third, or fourth sessions. In the first session, the percentage was 64.6%, rising to 80.6% in the second session. The third session saw a decrease to 68%, while in the fourth session, the percentage increased to 69.8%. The fourth indicator of assessing the student learning process, which includes answering questions posed by the teacher and taking notes on the teacher's explanations, showed increases and decreases across each meeting. In the first meeting, this indicator had a percentage of 65.8%, which rose to 78.8% in the second meeting. The third meeting saw a slight decrease to 77.8%, and in the fourth meeting, it further declined to 70.8%.

4 CONCLUSION

The results of this study indicate that: (1) The assessment of student learning outcomes using a written test instrument in multiple-choice format achieved an average percentage of 61.15%, while the process assessment from the first to the fourth meetings showed an increase with an average percentage of 73.75%. Thus, the development of critical thinking skills based on the RADEC model can enhance learning outcomes in moral norms material, fostering courteous behavior in Grade X students at SMKN-2 Bandung. (2) The development of critical thinking skills based on the RADEC model is suitable for improving learning outcomes in the moral norms material to foster courteous behavior in Grade X students at SMKN-2 Bandung. This is supported by analysis results showing a significance value of 0.016 < 0.05, indicating a difference in learning outcomes in moral norms material between Grade X students at SMKN-2 Bandung who followed the RADEC learning model and those who followed a conventional learning model. (3) The development of students' critical thinking skills based on the RADEC model is effective in improving learning outcomes in the moral norms material to foster courteous behavior in Grade X students at SMKN-2 Bandung. This is based on the experimental class's average critical thinking score (post-test) reaching 87.14, while the control class's average critical thinking score was 80.21. Analysis of this data shows that the average critical thinking score (post-test) in the experimental class is higher than that in the control class.

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