The Effect of React Learning Strategy on Social Intelligence in The Fifth Grade Students of State Elementary School at Ciputat Sub District in South Tangerang

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Abstract: This study seeks to reveal empirical evidence whether REACT learning strategy has an effect on social intelligence in fifth grade students of SDN Ciputat Sub district, South Tangerang. The study is conducted on the registered students in academic year 2018/2019. The research is carried out on August until October 2018. The research method used in this study is a quantitative method. The study was conducted on 64 elementary school students in Ciputat Sub district. The data collection technique was carried out with social intelligence test, and then processed using Excel 2016. The findings showed that there is an effect of REACT learning strategy on social intelligence in fifth grade students of SDN Ciputat Subdistrict, South Tangerang. These results are proven by the hypothesis test using t-test that result $t_{count}$ is more than $t_{table}$ at significance level $\alpha = 0.05$ that is $5.38 > 1.66$. It means that null hypothesis ($H_0$) is rejected and statistical hypothesis ($H_1$) is accepted. Based on the hypothesis result, it can be concluded that students who are taught by using REACT learning strategy have higher social intelligence than the students who are taught by using conventional method.

Keywords: REACT learning strategy, Conventional, Social Intelligence.

I. INTRODUCTION

REACT (Relating, Experiencing, Applying, Cooperating, Transferring) learning strategy is not familiar among the teachers, especially among primary school teachers in Ciputat subdistrict, South Tangerang. The teacher have not yet apply various strategies that engage collaboration between students in the learning process. As a result, students tend to have less interaction among them. In learning process, most teachers do not carry out learning activities that are focused on developing students’ science process skills. The teachers still depend on the printed book as the only source of student learning. This causes learning activities only focused on the delivery of material in printed books only. This condition makes students always try to memorize the material before test is held. Therefore, the teacher must be able to understand the factors that influence learning success and varied ways of teaching.

This condition become worse by the increase of the use of gadgets or smartphones among students, especially fifth grade elementary school students. Students tend to less social interaction and prefer to interact in cyberspace compared with interactions with fellow peers. Therefore, teachers require appropriate learning strategies such as REACT learning strategy.

It is in line with the research results Utami et al. (2016); Tyffani et al. (2018); and Nisa et al. (2018) reveal that to develop students’ social intelligence,
the learning process should be improved first. One learning strategy that can be implemented is REACT strategy (relating, experiencing, applying, cooperating, and transferring strategies). REACTS is one of the contextual learning strategies that provide opportunities for students to learn independently, make students motivated to learn, able to work together, and the learning process presented according to the context of their life.

Another study also shows that learning using REACT strategy is very well used. One possible reason is because there is a match between learning activities with real problems faced by students in their daily lives, so that social intelligence is more applicable and felt useful by students in their life (Ültay et al., 2017); and (Cahyono et al., 2017).

Based on the results of the above research, REACT Learning is strongly associated with social intelligence. Social intelligence can shape a person's character and morals. In the era of globalization, good character and morals make people pleasure to make friends with him. To develop social intelligence, appropriate learning strategies are needed like (REACT) methods that also called contextual learning strategies that concepted to help teachers link subject content with the real world, and motivate students making connections between knowledge and application in students' lives (Ültay et al., 2017); (Günter, 2018); and (Eshetu & Assefa, 2019).

In addition, according to Cahyaningrum & Febriana (2019), REACT strategy makes students are motivated to learn that with the real context by exploring the extent to which students recognize the studied material. It will make students able to know about the relationship of the material to be studied. After students get the concepts, students are required to apply these concepts. Students collaborate in a group and have to apply the discussion results in solving new problems and practicing critical skills in students. Every child has aspects and intelligence that need to be optimally developed. The aspects and intelligence include spiritual, spatial, mathematical, interpersonal, social-emotional, and artistic. All of these aspects are considered to be developed by parents and adults. One of children's abilities that needs to be developed optimally is social or interpersonal intelligence.

Social intelligence is also called interpersonal intelligence is the ability to understand, interact, and relate well with others (Cahill & McGaugh, 2004) and (Corcoran & Tormey, 2010). This interpersonal intelligence includes understanding others, social abilities, and relationship skills. Social intelligence helps student to interact with peers and can influence academic achievement. As stated the intelligence of a student can be seen from the interaction of students with students which is one of the factors influencing student learning outcomes (Goleman, 2006); (Livergood, 2008); and (Albrecht, 2006). Interaction between students is shown by the ability of students to get along well with other students. In this case, the student can get learning. The relationship among students can provide benefits to students, such as students can learn together to solve learning problems, discuss a problem, and foster positive competition.

Furthermore, Kılıç&Sert (2015) and Poulou (2017) said that people who have good social intelligence will be able to communicate with others. They have the ability to read other people's body language and pay attention of others' suggestion that makes them able to succeed in life. Social intelligence will make someone comfortable anywhere with other people with different backgrounds, ages, cultures, and social backgrounds.

Social intelligence is the maximum result that can be expected in learning activities. Social intelligence will help them to succeed in the process of socializing their daily life. Social intelligence is a social skill that forms character, which is more important for student success than cognitive intelligence as measured through Intelligence Quotient (IQ). Unlike Intelligence Quotient (IQ), social intelligence can be taught at every stage of
student development, starting from the level of basic education to the level of higher education, in family, school or community (Tahmores, 2011). In addition, in interpreting social intelligence, people generally see a person's quality through the awareness and understanding of problems happened. This means that it is not just the success of academic or material achievements and communication, but also the success of understanding that makes one's life valuable and has implications for a better life in the surrounding community.

Schutte et al. (2001) states that social intelligence is the ability to establish relationships and collaborate with others. Social intelligence includes awareness of situations and social dynamics as well as knowledge of interaction styles and strategies that help a person achieve his goals. Social intelligence also involves views and self-awareness toward reaction patterns and perception of himself. Goleman, a psychologist known in his phenomenal book "Emotional Intelligence" a few years ago, revealed his idea that social intelligence includes "non-cognitive" attitudes such as talents that encourage sensitivity that turns a crying child into a calm state because of touch. He also emphasized on social awareness and social abilities in a person in establishing social relationships in an interaction (Sterelny, 2007); (Mohamad&Jais, 2016); and (Ulutaş&Ömeroğlu, 2007).

Based on the explanation of social intelligence, it can be concluded that social intelligence is the capacity and non-cognitive attitude of a person who has social awareness and social ability to establish relationships and cooperation with others so that his life is more valuable and successful in the communities in which he interacts. It requires a strategy for planning what needs to be done to fit the expected goals. Generally, strategy has the understanding as an outline to take action in order to achieve the desired goals (Fahrurrozi, 2017a). According to the description above, it can be said that strategy means a reference or guideline in carrying out activities to be organized.

The learning strategies that used in the learning process must be oriented on the learning objectives (Martin, 2007). One strategy that can be used is REACT strategy. REACT strategy is the abbreviation of Relating, Experiencing, Applying, Cooperating, and Transferring. Relating means that learning is done by using real experience that already happened in teacher or students’ life (Al-Tabany, 2014). Learning done with real life experiences that have been experienced by students and teachers try to connect with new concepts so that students become more understand and increase their knowledge. The second abbreviation is Experiencing. Experiencing is learning in the context of exploration, discovery, and creation (Eshetu & Assefa, 2019). In the learning process, students can build their knowledge, explore ideas then discoveries of new things, and be able to create or produce a useful product.

The next word is Applying. Students apply concepts and information to the imagined future life needs (Günter, 2018). In this process, students are able to apply the knowledge they have received for use in real life. Then, Cooperating which means learning in the context of exchanging ideas, asking and answering questions, interactive communication between fellow students, students and speakers, solving problems and doing assignments (Jelatu et al., 2018). In this process, learning is done in groups so that students can work together and exchange ideas and communication among them.

Transferring is a learning activity by utilizing knowledge and experience based on new contexts to gain new knowledge and learning experiences. In this process, students utilize the knowledge by demonstrating their ability and applying it in new situations and contexts. transfer of learning implies transferring the skills of learning outcomes from one situation to another (Tyffani et al., 2018).

Based on the explanation above, REACT strategy has big role on improving many aspects of students so it can be assumed that REACT strategy has an effect on social intelligence.
II. RESEARCH METHODOLOGY

Based on theories and the formulation of research, the method used in this study is the experimental method. Researchers used an experimental method by using Post-test Only Control Design. The data from interpersonal intelligence are obtained from experimental class and control class. The samples of the research are selected and placed randomly. The target population in this study were all students of the Elementary School in the Ciputat Sub District, South Tangerang. The sample used in this study is determined by using a simple random sampling cluster technique. This technique enable the research unit or elementary unit of the population has the same opportunity or opportunity to be selected as a sample. After the selection process, SDNCiputat 15 is chosen as experimental class and SDN Ciputat 17 Pagias control class.

III. RESEARCH FINDINGS

A. Data Description

Data description is served based on social intelligence variable by using REACT strategy compared with conventional strategy.

1. Social intelligence of the students who use REACT learning strategy

The score of social intelligence is obtained from the calculation of social intelligence test result by using REACT strategy. Based on scoring results, range of data from 0-25 showed that the middle value is 12.5. After calculating, the empirical score range is 11-24, which means the lowest score of the respondent is 9 and the highest score is 24. The average (X) score is 15.94, mode is 17, median is 17, variance (S2) gained 14.93 and standard deviation (S) is 3.86.

2. Social intelligence of the students who use conventional learning strategy

The score of social intelligence is obtained from the calculation of social intelligence test result by using conventional strategy. It is calculated from the answer of 35 students who done 25 multiple-choice question of social intelligence instrument. Based on scoring results, range of data from 0-25 showed that the middle value is 12.5. After calculating, the empirical score range is 11-24, which means the lowest score of the respondent is 9 and the highest score is 24. The average (X) score is 15.94, mode is 17, median is 17, variance (S2) gained 14.93 and standard deviation (S) is 3.86.

B. Testing of Data Analysis Requirements

Before analyzing the data, the researchers have to know whether the data is normally distributed and homogeneous or not. To test the normality of the data, the researchers use Liliefors test. While, to test homogeneity, the researchers use F test.

1. Normality Test

Based on the calculation on students’ learning result of experiment class by using 35 samples, it obtained the value of $L_{count}$ that is 0.029. While the value of $L_{table}$ at a significant level of $\alpha = 0.05$ is 0.149. It means $L_{count}$ is smaller than $L_{table}$ that is $0.029 < 0.149$. It can be concluded that the data of social intelligence in experiment class is normally distributed.

<table>
<thead>
<tr>
<th>N</th>
<th>$L_{count}$</th>
<th>$L_{table}$</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>0.029</td>
<td>0.149</td>
<td>$H_0$ accepted</td>
</tr>
</tbody>
</table>

Based on the calculation on students’ learning result of control class by using 35 samples, it obtained the value of $L_{count}$ that is 0.011. While the value of $L_{table}$ at a significant level of $\alpha = 0.05$ is 0.149. It means $L_{count}$ is smaller than $L_{table}$ that is $0.011 < 0.149$. It can be concluded that the data of social intelligence in control class is normally distributed.

TABLE II
The Result of Normality Test Using Liliefors Test in Control Class

<table>
<thead>
<tr>
<th>N</th>
<th>L_count</th>
<th>L_table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>0.011</td>
<td>0.149</td>
<td>H₀ accepted</td>
</tr>
</tbody>
</table>

Based on the calculation of Liliefors test, it can be concluded that the data of social intelligence in experiment and control class are normally distributed.

2. Homogeneity Test

Homogeneity test in experimental class and control class is carried out by using the F test. The results of the homogeneity test can be seen in the following table:

<table>
<thead>
<tr>
<th></th>
<th>F_count</th>
<th>F_table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>1.05</td>
<td>1.84</td>
<td>Homogeny</td>
</tr>
<tr>
<td>and control class</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Based on the calculation of homogeneity test, it obtained the value of F_count that is 1.05. While the value of F_table at a significant level of α = 0.05 is 1.84. Therefore, F_count is smaller than F_table that is (1.05 < 1.84). It can be concluded that the data from both classes are homogeny.

C. Testing Hypothesis

Based on the calculation of t-test, it obtained the value of t_count that is 5.38. While the value of t_table at a significant level of α = 0.05 and dk = 68 is 2.000. Therefore, t_count is more than t_table that is (5.38 > 2.000). It means that H₀ is rejected and H₁ is accepted. It can be concluded that there is significant difference on students’ social intelligence in students who is taught by REACT learning strategy in experiment class and students who is taught by conventional method in control class.

Based on the calculation of t-test, it can be concluded that there is significant difference on students’ social intelligence in students who is taught by REACT learning strategy in experiment class and students who is taught by conventional method in control class. It revealed the evidence that different learning strategy will affect significantly in students’ social intelligence.

D. Discussion

After testing the hypothesis, it can be concluded that the null hypothesis (H₀) which states that there is no significant influence of social intelligence between the class getting learning with the REACT strategy and the class learning conventionally in fifth grade elementary school students is rejected. Because H₀ is rejected, then H₁ is accepted, which means there is a significant effect on the social intelligence of the class that gets learning with the REACT strategy with the class getting conventional learning in fifth grade elementary school students. The effect of social intelligence in experimental class compared with control class is strengthened by the average score of both classes. The findings showed that the average score of social intelligence in experimental class is higher than the average score of control class that is 18.42 > 15.89. This proves that social intelligence through REACT strategy is better than conventional strategy.

The results mentioned above happened because the right learning strategy will increase students’ social intelligence. Learning strategies that can affect social intelligence in this study are REACT learning strategies. REACT Strategy is one of the learning strategies that help teachers to teach the concepts to the students, so students not only memorize theories but students can relate material to the context of real

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life experiences, discover their own concepts, apply concepts, work together and transfer knowledge in new contexts.

According to Nursofah et al. (2018) and Cahyaningrum & Febriana (2019) who implement REACT strategy in the topic of plants, the teacher guides students to relate the knowledge learned with the reality they see in everyday life. Students are given the opportunity to manipulate equipment, utilize learning resources, and carry out other forms of research activities.

Furthermore, students are expected to apply what is learned to the real situation. The next stage is cooperating where students work together exchanging ideas, asking and answering questions, interactive communication between fellow students, students and teachers or students and speakers in solving problems and doing assignments together. And the last is the transferring stage where students use knowledge in new contexts or new situations such as something that has not been resolved in class (Cahyono et al., 2017) and (Jelatu et al., 2018).

Unlike students who use REACT learning strategies, conventional strategy only makes teacher provides information in the form of theory, generalization, law or proposition along with supporting evidence. Students only receive information provided by the teacher (Fahrurrozi, 2017b). As a result, students are lack of curiosity so that students’ social intelligence is less developed.

IV. CONCLUSION

Based on the findings, it can be concluded that there is significant effect of REACT strategy on students’ social intelligence. The conclusion is proven by the result of t-test that showed t_{count} is more than t_{table} at a significant level of α = 0.05 that is 5.38 > 1.66. Social intelligence in fifth grade elementary school students through the REACT strategy is better than through conventional strategies. This is evidenced by the findings that the average score of social intelligence in the experimental class is higher than the average score of the control class that is 18.42 > 15.89. The success of students in improving social intelligence can not be separated from the teachers’ ability in planning and preparing equipment and material facilities.

V. REFERENCES

Science and Technology Education. https://doi.org/10.29333/ejmste/102283


