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Learning Model *Problem Solving Problem Solving* to Improve Skills in Electrolyte and Non-Electrolyte

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Abstract: Problem Solving Model to Improve Problem Solving Skills in Electrolyte and Non Electrolyte Solution. This study aims to describe the effectiveness of problem solving learning models in electrolyte and non-electrolyte solution materials to improve problem solving skills. The research method used was a quasi-experimental method with the matching only pretest-posttest control group design. The population of this study were all students of class X IPA SMA AL-Azhar 3 Bandarlampung in the 2019/2020 academic year. The research sample was determined by purposive sampling technique, so that the students of class X IPA 4 as the experimental class and class X IPA 3 students as the control class were determined. The data analysis technique used is the difference test of the two means. The results showed the n-gain of problem solving skills in the experimental class was 0.57 which was categorized as moderate; There is a significant difference in the average post-test score between the experimental class and the control class. Based on these results, it can be concluded that the problem solving learning model in electrolyte and non-electrolyte solution material is effective for improving problem solving skills.

Keywords: *Problem Solving Model, Problem Solving Skills, Electrolyte and Non Electrolyte*

Abstrak: Model Problem Solving untuk Meningkatkan Keterampilan Pemecahan Masalah pada Larutan Elektrolit dan Non Elektrolit*. Penelitian ini bertujuan untuk mendeskripsikan keefektifan model pembelajaran problem solving pada larutan elektrolit dan nonelektrolit untuk meningkatkan keterampilan pemecahan masalah. Metode penelitian yang digunakan adalah metode eksperimen semu dengan desain matching only pretest-posttest control group design. Populasi penelitian ini adalah seluruh siswa kelas X IPA SMA AL-Azhar 3 Bandarlampung Tahun Pelajaran 2019/2020. Sampel penelitian ini ditentukan dengan teknik purposive sampling, sehingga diperoleh siswa kelas X IPA 4 sebagai kelas eksperimen dan siswa kelas X IPA 3 sebagai kelas kontrol. Teknik analisis data yang digunakan adalah uji beda dua rata-rata. Hasil penelitian menunjukkan bahwa n-gain keterampilan pemecahan masalah pada kelas eksperimen sebesar 0,57 yang dikategorikan sedang; terdapat perbedaan yang signifikan rata-rata skor posttest antara kelas eksperimen dan kelas kontrol. Berdasarkan hasil tersebut dapat disimpulkan bahwa model pembelajaran problem solving pada larutan elektrolit dan nonelektrolit efektif untuk meningkatkan keterampilan pemecahan masalah.*

Kata kunci*: Model Problem Solving, Keterampilan pemecahan Masalah, Elektrolit dan Larutan Non-Elektrolit*

- **INTRODUCTION**

The current 21st century has brought forth many new breakthroughs in various aspects, one of which is the emergence of artificial intelligence in the digital aspect (Fink & Elisabetta, 2019). The emergence of new breakthroughs in the form of artificial intelligence has caused a large number of workers to be replaced by machine technology (Fayard, 2019). New breakthroughs that have emerged also present new challenges, especially for workers in ASEAN countries (Fink & Elisabetta, 2019).

For workers in ASEAN countries, the challenges they face are getting tougher with the MEA which makes competition between workers increasingly tight because the number of job seekers is not proportional to the number of available jobs (Congge, 2016). ASEAN member countries including Indonesia have experienced a shortage of human resources or skilled labor (Fink & Elisabetta, 2019). Unskilled human resources are one of the causes of the decreasing number of workers in Indonesia who are getting jobs (Franita, 2016). The skills in question are 21st century skills, namely problem solving skills, creativity, innovation, metacognition, communication, and other skills to survive in the modern world (Rahman, 2019).

21st century skills are skills that must be applied in education (Griffin & Care, 2014). 21st century skills applied in education can help students acquire knowledge, skills, and expertise (Larson & Miller, 2011). One of the 21st century skills that can be trained in learning activities in the field of science is problem solving skills (Cahyani and Setyawati, 2016).

Problem solving skills are skills that involve systematic observation and critical thinking to find solutions (Rahman, 2019). Problem solving skills train students in understanding, identifying, and finding solutions through certain methods or strategies. In general, students who have high problem-solving skills will tend to be successful in achieving learning achievement and in their daily life (Surur, Triyono and Handarini, 2016).

One of the basic competencies (KD) in the 2013 curriculum that must be mastered by students in even semester X class chemistry subjects is KD 3.8: "Analyzing the properties of electrolyte and non-electrolyte solutions based on their electrical conductivity." KD 4.8: "Design, conduct and conclude and present experimental results to determine the nature of electrolyte and non-electrolyte solutions." The KD will be achieved if students can solve problems regarding electrolyte and non-electrolyte solutions in everyday life related to differences in electrical conductivity in dilute and concentrated solutions, design experiments and conduct experiments on differences in electrical conductivity in aqueous and concentrated solutions, then analyze the experimental data until the students finally find a solution to the problem. One of the learning models that can be used to train students' problem solving skills is the problem solving learning model (Setiyowati, Wijanarko, and Sulianto, 2018).

The problem solving learning model is more emphasized on student activities, while the teacher's role as a mentor directs students to solve problems (Pramesthi, 2019). The problem solving learning model has six phases, namely: orienting students to formulate problems, looking for appropriate data or information, so that it can be used to solve a problem, formulate hypotheses, collect data, analyze data, and make conclusions (Djamarah & Zain, 2010) .

Efforts to achieve the KD can be done by using a problem solving learning model. Initially students were given a discourse about problems in everyday life related to differences in electrical conductivity in dilute and concentrated solutions. Then in the first stage students are asked to formulate problems based on the discourse that has been read carefully. Furthermore, in the second stage students are asked to find information from various sources related to the formulation of the problem that has been made to support in answering the formulation of the problem that has been made.

In the third stage, students formulate hypotheses or make temporary answers based on the information that has been obtained. The hypothesis that has been compiled will be tested for truth at a later stage. The fourth stage is collecting data where students are asked to design and conduct experiments on differences in electrical conductivity in dilute and concentrated solutions to prove the truth of the hypotheses they put forward. Then in the fifth stage students analyze the data obtained from the experiments that have been carried out by answering questions that can build concepts. The last stage is drawing conclusions from the knowledge that has been obtained regarding the difference in electrical conductivity in aqueous and concentrated solutions.

Based on the description above, a study was conducted with the title "The Effectiveness of Problem Solving Learning Models on Electrolyte and Non-Electrolyte Solution Materials to Improve Problem Solving Skills".

- **METHOD**

Population and Sample

The population in this study were all students of class X IPA SMA Al-Azhar 3 Bandarlampung for the academic year 2019/2020 which consisted of 6 classes. The sampling technique used was *purposive sampling technique*. The sample of this research is class X IPA 4 as an experimental class that useslearning models *problem solving* and class X IPA 3 as a control class that uses conventional learning.

Research Methods and Design

This study used a quasi-experimental method with *the matching only pretest-posttest control group design* (Fraenkel, Wallen & Hyun, 2012).

Research Variables The

variables in this study consisted of independent variables, dependent variables, and control variables. The independent variable is the learning used, namely the use of problem solving learning models in the experimental class and conventional learning in the control class. The dependent variable is students' problem solving skills on electrolyte and non-electrolyte solutions. The control variable is the material of electrolyte and non-electrolyte solution.

Types and Sources of Data

This study uses several types of data, namely primary data and supporting data. The main data in the form of pretest and posttest data about problem solving skills, and supporting data, namely student activity data during learning. Sources of data come from the entire experimental class and control class.

Research Instruments and Learning Tools The

instruments used in this study are: 1) Pretest and posttest questions consisting of 4 descriptive questions to measure problem-solving skills on electrolyte and non-electrolyte solution materials. 2) Student activity observation sheet The learning tools used include: 1) Syllabus 2) Learning implementation plan (RPP) 3) Student worksheets (LKS) that use problem solving learning models regarding differences in electrical conductivity in aqueous solutions and concentrated solutions.

Data Analysis and Hypothesis Testing The

pretest and posttest scores obtained from each student in the experimental class and control class were then calculated on average by using the following formula:

$$\text{Rata-rata skor} = \frac{\text{jumlah skor seluruh siswa}}{\text{jumlah siswa}}$$

Data on pretest scores and posttest scores were used to calculate *n-gain*. Calculation of *n-gain* using the formula according to (Hake, 1998).

$$<g> = \frac{\%\ \text{skor postes} - \%\ \text{skor pretes}}{100 - \%\ \text{skor pretes}}$$

When the n-gain has been obtained, then the average is calculated. The average *n-gain of* students in the experimental class and control class is calculated by the following formula.

$$\text{Rata-rata} <g> = \frac{\sum \text{n-gain seluruh siswa}}{\text{jumlah seluruh siswa}}$$

The results of the calculation of the average *n-gain are* then interpreted using the criteria from Hake (1998). The following are the criteria for classifying *n-gain* according to Hake in Table 1.

Table 1. Criteria for *n-gain*

Criteria <g>	**Category**
<g> 0.7	High
0.3 <g>< 0.7	Medium
<g><0, 3	Low The

average *n-gain* data obtained was then tested for normality and homogeneity, then used as a basis for testing the research hypothesis.

Two-Average Similarity Test Two-Average

Similarity Test aims to determine whether the students' initial problem-solving skills in the experimental class are significantly the same with the students' initial problem solving skills in the control class. Hypotheses for equality test two averages are:

H_0: $\mu_1 = \mu_2$: Average score pretest solving skills of students in the experimental class is equal to the average score of students in the class pretest control.

H_1: $\mu_1 \neq \mu_2$: Average score pretest problem solving skills of students in the experimental class is not equal to the average score of students in the class pretest control.

Based on the test results, the data obtained are normally distributed and homogeneous, so that the similarity test of the two averages is carried out using parametric statistical tests, namely by using thetest*t*-. The formula used in the*t*- is as follows (Sudjana, 2005):

$$t_{hitung} = \frac{\bar{x}_1 - \bar{x}_2}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$s^2 = \frac{(n_1 - 1)\, s_1^2 + (n_2 - 1)\, s_2^2}{n_1 + n_2 - 2}$$

testTest criteria: accept H_0 if $t_{count} < t_{table}$ with degrees of freedom d(k) = n1+n22 and reject H_0 for the price t other. By determining the significance level = 5% (-).

Two-Average Difference Test The two-average

difference test was used to determine the significant difference in posttest scores between the experimental class usinglearning models *problem solving* and the control class using conventional learning.

Hypotheses to test differences in two averages are:
H_0: $\mu_1 \leq \mu_2$: Average score postes the problem solving skills of students who applied learning model *of problem solving* is lower than or equal to the average value of the problem solving skills of students with conventional learning .
H_1 :$_1$ >$_2$: The average post-test score of students' problem-solving skills applied by thelearning model *problem solving* is higher than the average post-test of students' problem-solving skills with conventional learning.

Based on the test results, the data obtained are normally distributed and homogeneous, then the difference test of the two averages is carried out using parametric statistical tests, namely using the t-test (Sudjana, 2005):

$$t_{hitung} = \frac{\bar{x}_1 - \bar{x}_2}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$s^2 = \frac{(n_1 - 1)\, s_1^2 + (n_2 - 1)\, s_2^2}{n_1 + n_2 - 2}$$

Test criteria: With test criteria if $t_{count} < t_{table}$, then accept H_0 with a significant level of 5% and dk = $n_1 + n_2 - 2$ (Sudjana, 2005).

Percentage of Student Activities

Measurement of student activity in the learning process is carried out using a student activity sheet consisting of several activities. The activity sheet is filled out by the observer. The activities of the students observed were curiosity/questioning, expressing opinions/ideas and collaborating. Analysis of student activity data is carried out by calculating the percentage of student activity using the following formula.

$$\%\ \text{aktivitas i} = \frac{\sum siswa\ yang\ melakukan\ aktivitas\ i}{\sum siswa} \times 100\%$$

The results of the calculation of the percentage of student activity are then interpreted using the criteria in Table 2 below.

Table 2. Student activity criteria

Percentage	**Criteria**
80.1% - 100.0%	Very high
60.1% - 80.0%	High
40.1% - 60.0%	Medium
20.1% - 40.0%	Low
0.0% - 20.0%	Very low.

- **RESULT AND DISCUSSION**

Based on the research entitled the effectiveness of learningmodels *problem solving* on electrolyte and non-electrolyte solution materials to improve problem solving skills that have been carried out on the experimental class and control class at SMA Al-Azhar 3 Bandarlampung, data obtained test results, namely pretest and posttest problem solving skills and also non-test, namely observation data on student activities. The data that has been obtained from the research is then processed with the help of *software Microsoft Office Excel 2007.* Based on the statistical calculations that have been carried out, the following results were obtained:

Pretest

Before starting the application of thelearning model *problem solving* in the experimental class, the two samples were first given a pretest of problem solving skills. After that, a pretest score will be obtained in the experimental class and the control class. Then calculate the average pretest score of problem solving skills in the experimental class and control class. The results of the calculation of the average pretest score of problem solving skills in the experimental class and control class can be seen in Figure 1 below.

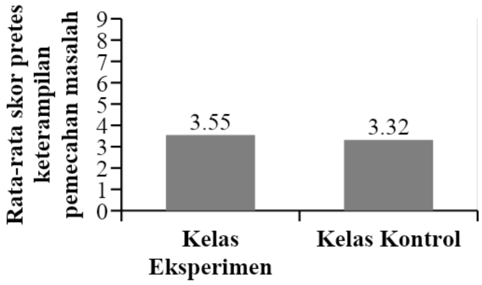

Figure 1. The average pretest score of problem-solving skills in the experimental class and control class.

Thendone *matching* statisticallywasto the pretest score that had been obtained which was carried out by using the two-average similarity test. It is used to see that the initial ability of problem solving skills between the experimental class and the control class is the same which is significant.

Before the test of the similarity of the two averages on the pretest score is carried out, a prerequisite test is first carried out. Prerequisite tests carried out are normality test and homogeneity test on both samples. The results of the normality test on the problem-solving skill pretest score can be seen in Table 3 below.

Table 3. The results of the normality test score pretest problem solving skills

Class	Value		Test Criteria Test	Decision
	$x2_{count}$	$x2_{table}$		
Experiment	5,22	7,82	If $x2_{count} < x2_{table}$, then accept H_0	Accept H_0
Control	6,85	7,82	If $x2_{count} < x2_{table}$, then accept H_0	Accept H_0

Then perform the next prerequisite test, namely the homogeneity test, the results of this test can be seen in Table 4 below.

Table 4. The results of the homogeneity test of the pretest score of problem solving skills

Value of		Test Criteria	Decisiontest
F_{count}	F_{table}		
1.60	1.84	If $F_{count} < F_{table}$, then accept H_0	Accept H_0

Next, the two-average similarity test is carried out (-test*t*) to be able to find out whether the average pretest score of the experimental class is the same as the average pretest score of the control class. Test the equality of two average do with the testing criteria which received H_0 if $_t \leq t_{table,}$ and acceptH_1 or rejectH_0 for another price. Where H_0 is the average pretest score of students' problem solving skills in the experimental class is the same as the average pretest score of students in the control class, while H_1 is the opposite. In the calculation of the similarity test of the two average pretest scores (test*t*-) thevalue is t-$_{count}$ 0.71. This shows that $t_{arithmetic} < t_{table}$, where the value of t_{table} is 2.0. The result of the test decision for the similarity test of the two averages is accept H_0.

Based on the results of tests that show the decision received H_0 means that the average score petes experimental class problem-solving skills equal to the average score of pretest control class problem-solving skills. Based on the results of the second sample can be said to be *matched* to one another so that the sample can be given treatment time of the study, namely the experimental class using learning model *of problem solving* and the control class using conventional learning.

Posttest

After obtaining the posttest score in the experimental class and control class then calculate the average posttest score. The results of the calculation of the average posttest score of problem-solving skills in the experimental class and control class can be seen in Figure 2.

The maximum posttest score is 12. Figure 2 shows that the average posttest score in the experimental class is higher than in the control class, namely of 10.26 than the average post-test score in the control class which was only 6.58. Then, the hypothesis test was carried out, namely the difference between the two averages on the posttest score. The aim is to find out whether there is a significant difference in the average post-test score of problem-solving skills between the experimental and control classes.

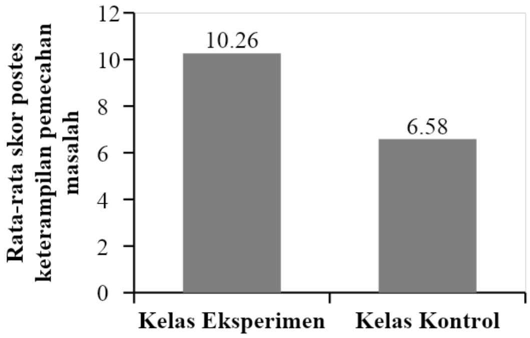

Figure 2. The average post-test score of problem-solving skills in the experimental class and control class

However, before testing the difference between the two averages, a prerequisite test is carried out first. The results of the normality test on the post-test score of problem-solving skills can be seen in Table 5 below.

Table 5. The results of the posttest normality test scores for problem-solving skills

Class	Value		Test Criteria Test	Decision
	$x2_{count}$	$x2_{table}$		
Experiment	3.08	7.82	If $x2_{count} < x2_{table}$, then accept H_0	Accept H_0
Control	1.68	7.82	If $x2_{count} < x2_{table}$, then accept H_0	Accept H_0

Next, a prerequisite test is carried out, namely the homogeneity test. The results of this test can be seen in Table 6 below.

Table 6. The results of the homogeneity test of the posttest score of problem-solving skills

Value of		Test Criteria	Decisiontest
F_{count}	F_{table}		
1.04	1.84	If $F_{count} < F_{table}$, then accept H_0	Accept H_0

Next, the difference between two averages is tested. This test is performed with the test criteria is received H_0 if $_{t} \leq t_{table,}$and acceptH_1 or rejectH_0 for another price. In the calculation of the difference between the two average posttest scores, thevalue is t-$_{count}$ 6.31. This shows that $t_{count} > t_{table}$, where the value of t_{table} is 2.0. The result of the test decision to test the difference between the two means is rejected H_0.

Based on the results of the test decisions which show H0 rejects, it means that the average post-test score of students' problem-solving skills applied by thelearning model *problem-solving* is higher than the average post-test score of students' problem-solving skills with conventional learning. Based on these results, it can be concluded that the application of thelearning model is *problem solving* effective in improving students' problem solving skills.

Calculation of *n-gain*

The calculation of *n-gain* in this study uses pretest scores and posttest scores of students' problem solving skills in the experimental class and control class. After obtaining the *n-gainstep* , the nextis to find the average *n-gain*. The results of the calculation of the average *n-gain are* then interpreted using the criteria from Hake (1998).

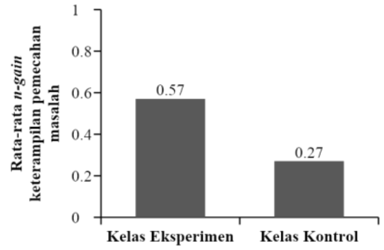

Figure 3. The average *n-gain* of problem solving skills in the experimental class and control class

The average *n-gain* of problem solving skills in the experimental class and control class can be seen in Figure 3. Figure 3 shows that the average *n-gain of* the experimental class is more higher than the control class. Based on the classification of *n-gain* according to Hake (1998), the average *n-gain of* the experimental class (0.57) is in the medium category, so it can be concluded that thelearning model is *problem solving* effective for improving students' problem solving skills. Meanwhile, the average *n-gain in* the control class (0.27) is in the low category.

Calculation of Student Activities Student

activities were observed by observers during the learning process withlearning models *problem solving* on electrolyte and non-electrolyte solutions. Students' activities observed in the learning process are asking questions, expressing ideas or opinions, discipline, and collaborating. The following are the results of observer observations of student activities at each meeting during the application oflearning models *problem solving* on electrolyte and non-electrolyte solutions.

a. Asking

Figure 4 below presents the percentage of students' asking activities for each meeting.

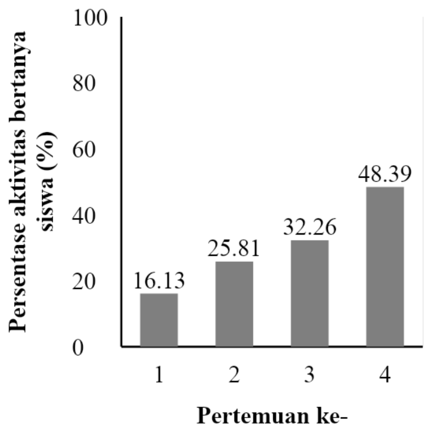

Figure 4. The percentage of students' asking activities at the 1st, 2nd, 3rd and 4th

meetings. Based on Figure 4, the percentage of students' asking activities increased at each meeting. At the first meeting, the activity of asking students was still very low. At the 2nd meeting until the 3rd meeting, the activity of asking students had low criteria. At the 4th meeting, the activity of asking students had moderate criteria.

b. Expressing ideas/opinions The

percentage of activities to express students' ideas/opinions for each meeting is presented in Figure 5 below.

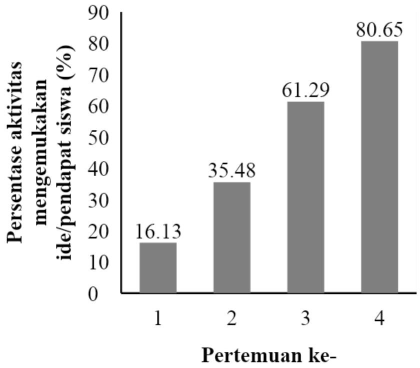

Figure 5. Percentage of activities to express students' ideas/opinions at the 1st, 2nd, 3rd and 4th

meetings. Based on Figure 5, the percentage of activities to express students' ideas/opinions has increased at each meeting. At the first meeting, the activity of expressing ideas/opinions of students still had very low criteria. At the 2nd meeting, the activity of expressing students' ideas/opinions became low criteria. At the 3rd meeting, the activity of expressing students' ideas/opinions became high criteria. At the 4th meeting, the activity of expressing students' ideas/opinions became very high criteria.

c. Collaborating The

percentage of students' collaborative activities for each meeting is presented in Figure 6 below.

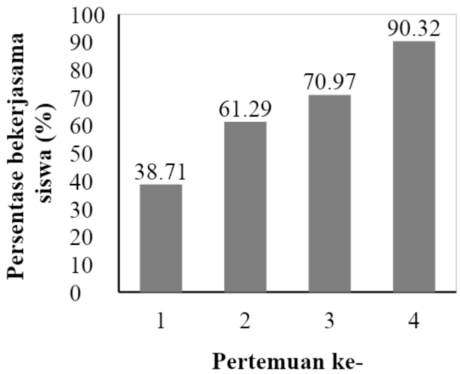

Figure 6. The percentage of students' cooperative activities at the 1st, 2nd, 3rd and 4th

meetings. Based on Figure 6, the percentage of students' cooperative activities increased at each meeting. At the 1st meeting, students' cooperative activities still had low criteria. At the 2nd meeting until the 3rd meeting, students' collaborative activities became high criteria. At the 4th meeting, the students' collaborative activities became very high criteria.

Thelearning model *problem solving* consists of 6 stages. The following is the process carried out at the stages of thelearning model *problem solving.* Before entering the first stage, students are first given a discourse about problems in everyday life related to differences in electrical conductivity in dilute and concentrated solutions. In the discourse mentioned several examples of electrolyte and non-electrolyte solutions in everyday life which are divided into dilute and concentrated solutions. These solutions will be tested for electrical conductivity using an electrolyte tester. The discourse given aims to build students' curiosity, so that students can formulate problems in the form of questions related to the discourse.

Stage 1: Formulating the problem

At this stage students are first given a discourse about problems in everyday life related to differences in electrical conductivity in dilute and concentrated solutions. In the discourse mentioned several examples of electrolyte and non-electrolyte solutions in everyday life which are divided into dilute and concentrated solutions. These solutions will be tested for electrical conductivity using an electrolyte tester. The discourse given aims to build students' curiosity, so that students can formulate problems in the form of questions related to the discourse. Before formulating problems from the discourse that has been presented, students are first asked to determine the variables.

After students determine the variables, then students are asked to formulate problems related to the discourse that has been provided. In LKS students are asked to formulate problems related to the discourse that has been presented. Rumus- an issue expected "Is there a difference in electrical conductivity between a concentrated solution and the aqueous solution made from a sugar solution, a solution of CH_3COOH, and a saline solution when tested using the electrolyte tester?" This activity can melatihkan students' problem-solving skills of reading and thinking*(readand*think)where students are able to identify the facts relating to the discourse, is able to identify perta- nyaan or problems associated with the discourse, and to determine further action.

The problems are made in accordance with the expected and has led to the question "Is there a difference in electrical conductivity between a concentrated solution and the aqueous solution made from a sugar solution, a solution of CH_3COOH, and a saline solution when tested using the electrolyte tester?"

Stage 2: Finding Information

At this stage students will look for information that is relevant to the formulation of the problem that has been made. The information sought comes from various sources that support to answer the formulation of the problem that has been made. This activity can melatihkan students' problem-solving skills such as the exploration and planning*(exploreand*plan)where students were able to illustrate or explains the model of the problem which they have previously formulated and organize information relating to the formulation of the problem that has been made.

Stage 3: Formulating the hypothesis

At this stage students are asked to formulate a hypothesis or temporary answer in accordance with the formulation of the problem that has been made based on the information that has been sought previously. The hypothesis that will be formulated is of course related to the knowledge and information that has been obtained previously. The expected hypothesis is that a concentrated and dilute sugar solution if tested using an electrolyte tester will produce the same results. CHsolution of$_3$COOHconcentrated and dilute when tested using the tester electrolyte will produce different results. Concentrated and dilute salt solutions if tested using an electrolyte tester will produce different results.

Stage 4: Collecting data

At this stage students are asked to collect data to test the hypothesis that has been made. Data obtained from the results of experiments designed and carried out by students. In the LKS, students are asked to design an experiment regarding the difference in electrical conductivity in a concentrated solution and a dilute solution.

The first step is that students are asked to design experimental procedures based on predetermined variables. After designing the experimental procedure, students are asked to present the experimental procedure that has been made. Then the experimental procedure design that has been made by students is adjusted to the procedural design made by the teacher. Next, students are asked to determine the tools and materials to be used. Then students are asked to make a table of observations from the experimental design that has been made. After that, students write down the observations obtained in the table that has been made.

Stage 5: Analyze the data

At this stage students are asked to analyze the data that has been obtained in the previous stage. The activity of analyzing this data is done by answering the questions that have been provided in the LKS.

In the LKS, students are asked to answer several questions related to the data obtained from previous experiments. These questions lead students to arrive at the stage of drawing conclusions. In this activity, students' problem-solving skills that can be trained are finding*an answer*, where students are able to obtain answers using a strategy (trial design) that has been made.

Stage 6: Drawing conclusions

At this stage students are asked to draw conclusions from the knowledge that has been obtained in the previous stage regarding the difference in electrical conductivity in dilute and concentrated solutions. Before drawing conclusions, students discuss all the results of their answers with a group of friends by re-examining the answers that have been made then drawing conclusions and generalizing them. In this activity students' problem solving skills that can be trained are reviewing and discussing (*reflect and extend*).

- **CONCLUSION**

Based on the results of research and discussion, it can be concluded that: Thelearning model is *problem solving* effective in improving students' problem solving skills. *TheN-gain* averageof students' problem solving skills in the experimental class is in the medium category, while in the control class is in the low category. There is a significant difference in the average posttest score in problem solving skills between the experimental class and the control class.

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