

Improving Student Learning Outcomes through the Application of Civics Inquiry Learning: An Experiment in the Second Grade Social Class at SMA Negeri 7 Manado

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This study aims to determine the differences in student learning outcomes taught by inquiry learning models and conventional learning models. This research is a quasi-experimental study using the Pre-Test - Post-Test Control Group Design. The subjects in this study were the classes XI IPS 3 as an experimental class consisting of 32 students, and XI IPS 5 as a control class consisting of 32 students in the Manado 7 High School in the academic year of 2018–2019. The data obtained showed differences between the pre-test and post-test results in the control class and the experimental class, with an average of 57 experimental class learning outcomes and an average control class learning outcome of 46.625. The normality test data is fulfilled with normally distributed data. The results of the data analysis showed a real level of 0.05 was obtained and then rejected. Based on the results of these studies, it can be concluded that the learning outcomes of students taught with inquiry learning models are better than the learning outcomes of students taught with conventional learning models.

Key words: *Inquiry, Learning Outcomes, Civic.*



Introduction

In the development of human life that is as advanced, modern and sophisticated as now, education plays an important role to ensure its survival. Education is a vehicle to improve and develop the quality of human resources. Through the implementation of education, it is expected to be able to produce quality people who will support the achievement of national development goals. As in the 20 Acts of 2003, it emphasises that national education functions to develop capabilities and shape the character and civilisation of the nation with the aim to develop the potential of students to become quality human beings. They will bear the characteristics of faith and devotion to God Almighty as well as be noble, healthy, faithful, capable, creative, independent, and become responsible citizens of a democratic society.

In this connection, it is realised that education plays a very important role in the life and progress of humanity. Education is a dynamic force in the life of every individual, affecting his physical development, power, soul, sociality and morality. Or in other words, education is a dynamic force in influencing the abilities, personality and life of individuals in their meetings and relationships with others, and their relationship with God. Education is a conscious effort to prepare students through activities of guidance, teaching, and or training for their role in the future. Therefore, it must be considered that the quality of the educational process is carried out.

The quality of education is closely related to the quality of student learning outcomes, because students are at the focal point of the teaching and learning process. Therefore, in improving the quality of education, it must be followed by improving the quality of student learning outcomes. Improving the quality of student learning can be seen in the high level of student achievement, while the high level of student learning outcomes is influenced by the amount of student learning interest that follows and completes the learning process in the classroom and in all subjects, including Civics subjects.

However, it is a fact that there are still low learning outcomes in Civics subject matter due to the dominant memorisation skills, rather than the ability to process one's own understanding of the material. So far, students' interest in learning about Civics is still very low. This can be seen in the attitude of students during the learning process who are not focused and are busy. There are even some students who think Civics is not important because it is not included in the subjects tested on the National Examination (UN).

In line with this, the Civics teacher needs to innovate both the process and the learning outcomes themselves, so that Civics subjects are not viewed as boring because they only memorise information. Whereas, the teaching orientation of Civics does not merely emphasise cognitive aspects but must pay attention to the affective aspects or attitudes and



psychomotor or skill aspects. If all three aspects can be realised by the teacher, it will greatly determine the quality of student learning outcomes themselves. As stated by Sani Ridwan Abdullah (2019: 38), learning outcomes are changes in behaviour or competencies (attitudes, knowledge and skills) obtained by students after going through learning activities.

In addition to the above, it can be stated that in order to achieve the expectations of bright student learning outcomes, Civics teachers need to innovate in the teaching and learning process in the classroom by applying various learning models such as Inquiry models, among others. This requires serious attention, because in reality, if the relationship between the teacher and students is not conducive, it has an impact on the student learning outcomes. Teachers sometimes do not perform their functions properly as instructors, such as the delivery of material or knowledge that is not appropriate, too monotonous, strategies that are not appropriate in learning and so forth. Students also sometimes cannot perform the function of receiving material or knowledge, such as a poor response in learning caused by not being interested in the material, unable to think critically and logically in finding their own concepts of the material provided, and so forth.

Furthermore, to change the mindset and behaviour of the teacher in the teaching and learning activities as stated above, then one model that can be applied is the inquiry learning model. The inquiry learning model, according to Hanafiah and cited by Nurdyansyah (2016: 137), is a series of learning activities that maximally involve all students' abilities to search and investigate systematically, critically, and logically so that they can find their own knowledge, attitudes and skills as a form behaviour change. Thus, the inquiry learning model is a learning activity that maximally involves all students' abilities to search for and investigate something (objects, humans or events) systematically, critically, logically, and analytically so that they can formulate their findings confidently and with the guidance of the teacher himself.

In connection with the above thought, when assessing the various phenomena that occurred at the research location as a result of the pre-observation conducted by researchers at SMA Negeri 7 Manado, it was observed that the learning process in Civics subjects is still centred on the teacher and is not centred on the students, resulting in the students being passive in learning. The learning process that has not been innovated, is the learning process that uses conventional models. It is not a mistake to use this model. However, if it is used continuously, it can be ensured that a monotonous learning process occurs and is shown by providing material in accordance with the guidelines in the printed book without including links to daily life. This further results in issuing assignments that make students bored by summarising the material lessons, and creating groups and discussing material without guidance or explanation from the teacher. Therefore, students cannot think critically and creatively with their own understanding of the concepts. This learning process can bore

students and fail to stimulate student interest in learning, which results in low student learning outcomes in the Civics subject.

In the intended pre-observation results it was found that, allegedly, the learning model used in Civics Learning in SMA Negeri 7 Manado is a factor that cannot be ignored in determining student learning outcomes. Learning models that are appropriate to the conditions of students, the nature of teaching material, facilities, media available, and the condition of the teacher are required for use in the learning process. The use of inappropriate learning models can make students uninterested, bored and is a cause of student learning outcomes that are lacking. If learning is achieved with a pleasant atmosphere and nature, it is certain that the learning process will run well. To create this, we need a fun and full of guidance learning model that positions the teacher to guide students in finding their own concepts of learning problems, observing changes in each learning situation and obtaining knowledge based on their own learning experiences that will make students learn actively and creatively in the learning process in the classroom.

Based on the concepts, thoughts and phenomena stated above, the researcher is interested in conducting further research to determine the effect and formulate it in a study entitled "Improving Student Learning Outcomes Through the Application of Inquiry Learning Models in the Civics Subject: An Experimental Study in Class XI IPS SMA Negeri 7 Manado".

Based on this background, the research problem can be formulated as follows: Are the learning outcomes of students taught with the inquiry learning model better?

Theoretical Review

Learning Model

The learning model, according to Kemp and cited by Nurdyansyah (2016: 19), is a learning activity that is done by teachers and students so that learning objectives can be achieved effectively and efficiently. In line with Kemp's opinion, Dick and Carey, quoted by Nurdyansyah (2016: 19-20), also mentioned that the learning model is a set of learning materials and procedures that are used together to produce learning outcomes for students and includes learning plans that have been compiled in real activities, enabling the objectives that have been prepared to be achieved optimally. Then, we need a method used to realise the strategies that have been applied.

Furthermore, the learning model according to Suprijono (2010: 46), is a conceptual framework that describes a systematic procedure in organising learning experiences to achieve certain learning goals and serves as a guide for teachers in planning teaching and

learning activities. This conceptual framework plays an active role in learning by preparing learning tools that will be used by a teacher as a learning guide, so that teaching activities can be directed and run well.

In addition, according to Joyce quoted by Trianto (2007: 5), the learning model is a plan or pattern that is used as a guide in planning learning in the classroom or learning in tutorials and to determine learning devices including books, films, computers, and so forth. A plan by the teacher is essential to increase students' creativity and activeness in the learning process. Learning that does not have a plan, will make students bored and disinterested in the learning process.

Based on some of the above meanings, it can be defined that the referred learning model in this study is the procedure carried out by the teacher and students as a guideline whose learning objectives can be achieved effectively and efficiently by using learning tools such as strategies, techniques, methods, materials, media and learning assessment tools.

The Inquiry Learning Model

a. Definition of The Inquiry Learning Model

The inquiry learning model was first developed by Richard Suchman in 1962 (Nurdyansyah, 2016: 137), to teach students to understand the process of researching and explaining an event. He wanted students to ask why an event occurred, then he teaches students procedures and uses the organisation of knowledge and general principles. Students do activities, collect, and analyse data, until finally students find answers to questions. Thus, students can actively, courageously and independently find and solve problems in the form of conceptual understanding, answering questions and so on.

Furthermore, according to Hanafiah and quoted by Nurdyansyah (2016: 137), inquiry is a series of learning activities that maximally involve all students' abilities to search and investigate systematically, critically, and logically so that they can find their own knowledge, attitudes and skills as a form of behaviour change. Therefore, inquiry is a learning activity that maximally involves all students' abilities to search and investigate something (objects, people or events) systematically, critically, logically, and analytically so that they can formulate their findings with confidence. From this activity, students will be more interested, improving the quality of learning, and a more active and even varied classroom atmosphere.

In addition, the understanding of inquiry from the National Science Education Standards cited by Sitiatava (2013: 85-86), is a diverse activity that includes observation, making questions and checking books or other sources of information to identify something that is already known, plan investigations, re-examine something that is known according to



experimental evidence, uses tools to collect, analyse and interpret data, submit answers, explanations and predictions, and communicate results. This activity is said to be the activity of scientists who can discover things for themselves with diverse processes and enhances an understanding of knowledge that can last a long time.

The above understanding differs from Schmidt and cited by Amri (2010: 85), which defines the inquiry model as a process to obtain information by observing data or experiments to find answers or solve problems to questions or formulate problems using critical thinking skills and logic.

Correspondingly, the inquiry learning model is a student-centred learning strategy where student groups are confronted with a problem or seek answers to questions in a procedure and group structure that is outlined clearly (Hamalik, 2012: 63). This student-centred learning aims to make students more active and critical and can help them to find their own understanding of concepts, precisely based on analysis that consequently can result in the analysed knowledge lasting for a long time in students' memories. Thus, it is true what is said by Sani (2019: 123), that the inquiry learning model according to Suchman, is a learning pattern that is used to help students formulate and test their own opinions by having an awareness of their abilities. The intended learning is the process of investigating a problem by searching for truth or knowledge.

Based on some of the notions stated above, the meaning of inquiry learning models in this study is a process for obtaining information carried out by students with the teacher's direction through observation or experimentation to solve a problem by using students' abilities mathematically, critically and logically to formulate problems, design experiments, conduct experiments, collect and analyse data and draw conclusions.

b. Stages of the Inquiry Learning Model

Each learning model directs us to design learning that can help students to achieve learning objectives. Therefore, in applying the learning model, the instructor must understand the purpose and objectives of the learning model that will be used. Likewise, in conducting learning using the inquiry learning model, teachers must understand and comprehend the stages contained in the inquiry learning model so that learning can proceed well. The stages of the learning model use the inquiry learning model (Trianto, 2009) as follows:

Table 1: The stages of the inquiry learning model

No	Phase	Teacher Behaviour
1.	Present a question or problem	The teacher guides students to identify problems and problems written on the board. The teacher divides students into groups. The teacher provides an opportunity for students to share opinions in forming hypotheses.
2.	Make hypothesis	The teacher guides students in determining hypotheses that are relevant to the problem and prioritising the investigation. The teacher provides the opportunity to students to determine the steps in accordance with the hypothesis that will be taken.
3.	Designing Experiments	The teacher guides students to sort the steps of the experiment.
4.	Conduct an experiment to obtain information	The teacher guides students to collect information through experiments.
5.	Collecting and analysing data	The teacher provides an opportunity for each group to convey the results of processing the collected data.
6.	Make conclusions	The teacher guides students in making conclusions.

b. Strengths and Weaknesses of the Inquiry Learning Model

Learning that utilises particular learning models certainly has advantages and disadvantages that aim to increase the teacher's knowledge and skills in teaching. The advantages and disadvantages of inquiry learning models according to Sanjaya (2007: 206), is as follows:

a) Strengths

1. Learning models that emphasise the development of cognitive, effective and psychomotor aspects in a balanced way ensues that learning by using inquiry learning models is considered more meaningful.
2. It can provide space for students to learn according to their learning style.
3. The inquiry learning model is a strategy that is considered in accordance with the development of modern psychology which considers learning is a process of behaviour change, thanks to the experience.

b) Weaknesses

1. If the inquiry learning model is used it will be difficult to control student activities.
2. It can create difficulty in planning learning because it collides with students' habits in learning.
3. Sometimes implementing it requires a long time.
4. As long as the success criteria are determined by the learning ability of students in the mastering of learning subjects, the inquiry learning model will be difficult to implement to each student.

Conventional Learning Models

a. Understanding Conventional Learning Models

According to Djamarah, the conventional learning model is a traditional learning model or is also called using the lecture method, because it has always been used as an oral communication tool between teachers and students in the learning process. Learning via this model is characterised by lectures delivered by teachers and accompanied by explanations, as well as the distribution of tasks and exercises (Kholik, 2011: 71). Further, Freire gave the term to learning using this model, namely as a bank-style educational organiser. The education provider is only seen as an activity to provide information that students must swallow, which must be memorised (Kholik, 2011).

In addition, Burrowes (Ahmadi, 2005) said that conventional learning emphasises content recitation without giving students sufficient time to reflect on the material provided and relate it to the material provided previously.

Based on some of the above meanings, the definition of conventional learning models intended in this study is traditional learning that uses lecture methods without giving sufficient time to students and places emphasis on students to memorise the material provided in learning.

a. Stages of Conventional Learning Models

The stages of the conventional learning model according to Syahrul (2013), are as follows:

- a. Conveying the objectives: The teacher conveys all the objectives of the lesson to be achieved in the lesson.
- b. Delivering information: The teacher conveys information to students gradually using the lecture method.

- c. Check understanding and provide feedback: The teacher checks student success and provides feedback.
- d. Provide opportunities for further training: The teacher issues additional assignments to be done at home.

b. Strengths and Weaknesses of Conventional Learning Models

According to Kholik (2011), advantages and disadvantages of the conventional learning models includes:

a) Strengths

1. Various information that is not easily found elsewhere.
2. Conveys information quickly.
3. Generates interest in information.
4. Teaches students the best way to learn by listening.
5. Is easy to use in the learning process.

b) Weaknesses

1. Not all students have a way of learning by listening.
2. Often there are difficulties in keeping students interested in what is being learned.
3. Students don't know what their goals are for the day.
4. The emphasis is often only on completing the task.
5. There is a low absorption and content is quickly lost because it is a process of memorising.

Learning Outcomes

Before explaining the meaning of learning outcomes, it should first be explained what the meaning of learning is. According to Rusman (2015: 12), learning is one of the factors that influences and plays an important role in the formation of personal and individual behaviour. The role of learning is very important when someone is in the formation of personality. The behaviour of each individual is certainly different and can be changed through activities carried out by someone with other people or with other environments.

Similarly, according to Howard (Rusman, 2015: 13), learning is the process by which behaviour (in the boarder sense) is originated or changed through practice or training. Humans cannot live alone, therefore humans need other people to be able to learn. In other words, humans must live socially in order to gain an experience that can be used as an exercise in changing themselves for the better. Further proceeded by Cronbach (Rusman,



2015: 13), learning is shown by a change in behaviour as a result of an experience.

Another opinion states that learning is a business process carried out by someone to obtain a new change in behaviour as a whole, as a result of his own experience in interactions with the environment (Slameto, 2003: 2). Furthermore, Gagne (Djamarah, 2008: 22) said that learning is a process to obtain motivation in knowledge, skills, habits and behaviour.

Based on the above understanding, the definition of learning in this study is a change in behaviour that affects a person in the formation of a person and their overall behaviour by obtaining results from an experience through motivation, habitual skills and behaviour.

Furthermore, the understanding of learning outcomes can be stated, according to Slameto (2008: 7-8), as something that is obtained from a business process after conducting learning activities that can be measured using tests to see student learning progress. Learning outcomes are measured by the average test results given, and the learning outcomes test itself is a group of questions or assignments that must be answered or completed by students. The learning outcomes test intends to measure the extent to which students have mastered or achieved the stated teaching objectives.

In contrast to the opinion of Gagne (Djamarah, 2002: 22), learning outcomes are capabilities or abilities obtained from the learning process which are categorised into four types: motor skills, in this case, is the coordination of some gestures; verbal information, which is someone explaining something by speaking, writing, drawing and expressing something; intellectual ability is the ability of a person to interact with the outside world and yourself by using symbols; and cognitive strategies, namely special intellectual skills and attitudes of a person in the learning process.

Furthermore, an additional opinion explains that learning outcomes are the result of an interaction of learning and an act of teaching (Zainal, 2011). The interaction of learning acts is the activity of students in obtaining the material provided, while the act of teaching is the activity of the teacher in transferring knowledge to students in learning. Based on an understanding of the descriptions stated above, the learning outcomes intended in this study are a process of interaction of learning and teaching actions in learning that can provide changes in knowledge and skills in a person that can be measured using tests that aim to discover the changes that occurred.

Research Methodology

This study uses quasi-research which aims to determine the differences in learning outcomes of students taught with inquiry learning models and with conventional learning models.

Therefore, this study requires data on student learning outcomes on the material of ‘the Indonesian role in Indonesian peace through international relations’ using inquiry learning models and conventional learning models. This research will be carried out in class XI of SMA Negeri 7 Manado and adjusted to the schedule of Civics in the school year of 2018–2019. The subjects in this study were class XI IPS 3, as an experimental class consisting of 32 students and XI IPS 5, as a control class consisting of 32 students in SMA Negeri 7 Manado in the academic year of 2018–2019.

The variables examined in this study were divided into two types: namely, the treatment variable and the dependent variable. The treatment variables in this study were inquiry learning models for the experimental class and conventional learning models for the control class. Meanwhile, the dependent variable in this study is student learning outcomes.

This research uses the Pre-Test – Post-Test Control Group Design, as stated in Table 2 below:

Table 2: Pre-Test – Post-Test Control Group Design

Class	<i>Pre-Test</i>	<i>Treatment</i>	<i>Post-Test</i>
XI IPS3	Test	Inquiry Learning Model	Test
XI IPS5	Test	Conventional Learning Model	Test

The instrument that will be used in this research is in the form of a set of learning tools, such as the lesson plan, syllabus, learning media, pre-test and post-test.

Research procedure:

1. Planning
 - a. School observations
 - b. Develop research instruments
 - c. Make a post-test problem
2. Implementation
 - a. Implement inquiry learning models in the experimental class and conventional learning models in the control class.
 - b. Researchers held a post-test to assess student learning outcomes.

In this case, the data processed is student learning outcomes in the experimental class (teaching with inquiry learning models) and control classes (teaching with conventional learning models). The data analysis technique used is the analysis of differences using the t-test formula. Before conducting the t-test, the following tests are first performed:

a. Normality test

According to Dawson (Lolombulan, 2017: 122), the data normality test is only done if the sample size is $n < 30$, if $n \geq 30$, then no data normality testing is needed.

a. Homogeneity Test

Statistical Hypothesis:

$$H_0 : \text{both variation (variety) similar } (\sigma_1^2 = \sigma_2^2)$$

$$H_1 : \text{both variation (variety) unsimilar } (\sigma_1^2 \neq \sigma_2^2)$$

Test Statistics (Lolombulan, 2017:171):

$$F = \frac{\text{largest sample variance}}{\text{smallest sample variance}} = \frac{S_1^2}{S_2^2}, \text{ bila } S_1^2 > S_2^2$$

Acceptance or rejection criteria H_0 , is:

If $F > F_{\frac{1}{2}a}(db_1, db_2)$ or value of $p < a$ ignore H_0 ,

$$db_1 = n_1 - 1 \text{ and } db_2 = n_2 - 1$$

If $F < F_{\frac{1}{2}a}(db_1, db_2)$ or value $p > a$ accept H_0 .

a. Hypothesis Test

The hypothesis to be tested is formulated as follows:

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 > \mu_2$$

μ_1 = Average number of student learning outcomes with the inquiry learning models.

μ_2 = Average number of student learning outcomes with the conventional learning models.

The test statistic (Lolombulan, 2017: 168) used is the t-test formula as follows:

$$1. \quad t = \frac{(\bar{x}_1 - \bar{x}_2)}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \quad \text{if the two groups are equal or } \sigma_1^2 = \sigma_2^2$$

$$s = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}} \quad \text{standard deviation of two groups}$$

with free degrees (db) = $n_1 + n_2 - 2$.

$$2. \quad t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \quad \text{if the two groups differ or different } \sigma_1^2 \neq \sigma_2^2$$

$$\text{with free degrees (db)} = \frac{\left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}\right)^2}{\frac{S_1^2/n_1}{n_1-1} + \frac{S_2^2/n_2}{n_2-1}}$$

$$S_1^2 = \frac{n_1 \sum x_1^2 - (\sum x_1)^2}{n_1(n_1-1)} \text{ and } S_2^2 = \frac{n_2 \sum x_2^2 - (\sum x_2)^2}{n_2(n_2-1)}$$

$$\bar{x}_1 = \frac{\sum x_1}{n_1} \text{ and } \bar{x}_2 = \frac{\sum x_2}{n_2}$$

Test Criteria:

If value of $t_{hitung} \geq t_{tabel} = t_{(\alpha, db)}$ so H_0 rejected or H_1 accepted.

If value of $t_{hitung} < t_{tabel} = t_{(\alpha, db)}$ so H_0 accepted or H_1 rejected.

Research and Research Results

This research has been carried out in Manado 7 High School in class XI IPS3 (experimental class), which is a class that uses inquiry learning models and class XI IPS 5 (control class), which is a class that uses conventional learning models. The control class consists of 32 students and the experimental class consists of 32 students. The data in this study was obtained from student learning outcomes through a pre-test and post-test on the subject of 'Indonesia's role in world peace through international relations' in the control class and the experimental class.

The results of the data analysis obtained from the pre-test and post-test of the experimental class are described in Table 3 as follows:

Table 3: Summary of Pre-Test and Post-Test Results of the Experimental Class (XI IPS 3)

	<i>Pre-Test</i> Experiment	<i>Post-Test</i> Experiment	Gain
Total	1182	2936	1770
Minimum Score	22	80	50
Maximum Score	48	100	60
Average	36.9375	91.75	55.3125
Standard Deviation	5.186443	7.184212	3.57805
Variance	26.89919	51.6129	12.8024

The results of the data analysis obtained from the pre-test and post-test of the control class are described in Table 4 as follows:

Table 4: Summary of Pre-Test and Post-test Results of the Control Class (XI IPS5)

	<i>Pre-test</i> Control	<i>Post-test</i> Control	Gain
Total	1291	2794	1503
Minimum Score	21	75	40
Maximum Score	53	100	54
Average	40.34375	87.3125	46.9688
Standard Deviation	8.438045	8.251833	5.02564
Variance	71.2006	68.09274	25.2571

The experimental and control class learning outcomes data can be seen in full in the Appendix Data used in the hypothesis testing, and is the difference between the pre-test and post-test scores by comparing the changes in the learning outcomes of the experimental class and the control class. Before testing the hypothesis, the normality of the data and the homogeneity test of variance or similarity of variance are carried out first.

a. Data Normality Test

The number of samples in the study was more than 30, so the data in this study was normally distributed (Lolombulan, 2017: 122).

Variety Homogeneity Test or Similarity Variance

Statistical hypothesis:

$$H_0 : \text{Both Variation (variety) similar } (\sigma_1^2 = \sigma_2^2)$$

$$H_1 : \text{Both Variation (variety) unsimilar } (\sigma_1^2 \neq \sigma_2^2)$$

Acceptance or rejection criteria H_0 , is:

$$\text{If } F > F_{\frac{1}{2}a}(db_1, db_2) \text{ or value of } p < a \text{ so } H_0 \text{ rejected,}$$

$$db_1 = n_1 - 1 \text{ and } db_2 = n_2 - 1$$

$$\text{If } F < F_{\frac{1}{2}a}(db_1, db_2) \text{ or value of } p > a \text{ so } H_0 \text{ accepted.}$$

Homogeneity test results can be seen in the Appendix, obtained $F = 1,03236 < F_{\frac{1}{2}a}(db_1, db_2) = F_{0,025(31,31)} = 2,048582$ accepting H_0 that means both variation are similar.

a. Hypothesis test

Statistics Hypothesis:

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 > \mu_2$$

Notes:

μ_1 = Average number of student learning outcomes with the inquiry learning models.

μ_2 = Average number of student learning outcomes with the conventional learning models.

Test Criteria:

If value of $t_{hitung} \geq t_{tabel} = t_{(\alpha,db)}$ so H_0 rejected or H_1 accepted.

If value of $t_{hitung} < t_{tabel} = t_{(\alpha,db)}$ so H_0 accepted or H_1 rejected.

Based on the t-test in the Appendix, obtained $t_{count} = 7,650721 > t_{table} = t_{(0,05,62)} = 1,998971$ H_0 rejected or H_1 accepted, which means the average student learning outcomes with the inquiry learning model are more than the average student learning outcomes with the conventional learning model.

Furthermore, based on the results of the research conducted by researchers in the experimental class using inquiry learning models and the control class using conventional learning models on the material (Indonesia's role in world peace through international relations) at SMA Negeri 7 Manado, it shows an increase in student learning outcomes as indicated by the difference in pre-test and post-test scores. For the experimental class, the average difference obtained was 55.3125 and the control class obtained an average difference of 46.9688. Based on these results, it was found that the average difference in the experimental class was higher than the average difference in the control class.

From the results of the hypothesis testing using t-test statistics, it obtained $t_{count} = 7,650721 > t_{table} = t_{(0,05,62)} = 1,998971$ so H_0 rejected or H_1 accepted. This shows an increase in student learning outcomes. Based on the testing of these hypotheses, the average student learning outcomes obtained with inquiry learning models are better than the average learning outcomes of students taught with conventional learning models. Thus, the use of inquiry learning models in teaching and learning activities of Civics subjects, especially on the matter of Indonesia's role in world peace through international relations, is proven to improve student learning outcomes.

Based on the results of the research above, it can be confirmed, as stated by Hanafiah and quoted by Nurdyansyah (2016: 137), inquiry maximally involves all students' abilities to

search and investigate systematically, critically, and logically so that students can learn actively, even if there is innovation in students' thinking at SMA Negeri 7 Manado. Similarly, (Hamalik, 2012: 63) the student-centred inquiry model is a learning process in which the students are grouped and faced with an interesting problem that will be discussed together and maximally involve all students' ability to seek answers or investigate a problem or event by formulating an analysis of the findings of a problem discussed in the groups with confidence, to the questions in a procedure of group learning models. The results of this theory are in accordance with Suchman, quoted by Sani (2019: 123), that inquiry learning models have been used in the learning process to help students to be confident in formulating and testing their own opinions and to develop an awareness of the ability of these students in thinking patterns and formulating the answers that have been developed by students in the learning process of being in groups.

Furthermore, the inquiry learning model applied in Manado 7 Public High School in Class XI IPS 3 and IPS 5 on the Civics subject matter of 'the role of Indonesia in world peace', apparently can improve student learning outcomes. This is in line with Slameto (2008: 7-8), who asserts that learning outcomes are obtained from a business process by students after conducting learning activities that can measure student learning outcomes. This is achieved from the average test results, obtained from several questions or independent assignments, as well as group assignments, that have been completed by students. This test is useful to measure the extent to which students master and measure the achievement of the teaching objectives that have been given during the learning process in class. Thus, the inquiry learning model that is applied in SMA Negeri 7 Manado in class XI IPS on the Civics subject matter of 'the role of Indonesia in world peace', can improve student achievement or learning outcomes. Therefore, this inquiry model needs to be applied effectively to other subject matter for Civics subjects.

Conclusion

Based on the data from the research and the discussion above, it can be concluded as follows:

1. The difference between the pre-test and post-test results of the control class and the experimental class with the average learning outcomes of the control class was 46,9688 and the average learning outcomes of the experimental class was 55,3125. The normality of the data test is fulfilled with normally distributed data. The results of data analysis with a real level of 0.05 were obtained $t_{count} = 7,650721 > t_{table} = t_{(0,05,62)} = 1,998971$ H_0 rejected or H_1 accepted.
2. The application of inquiry learning models in Civics Learning in SMA Negeri 7 Manado, in addition to improving student learning outcomes on the subject of Indonesia's role in world peace through international relations, also makes students active in learning.



3. The application of inquiry learning models in Civics Learning in SMA 7 Manado is more effective in improving student learning outcomes than by using conventional learning models.

References

- Ahmadi, A. 2005. *Strategi Belajar Mengajar*. Bandung: Pustaka Setia.
- Amri, S dan Ahmadi, L.K. 2010. *Konstruksi Pengembangan Pembelajaran*. Jakarta: PT. Prestasi Pustakarya.
- Budiyanto.2005. *Kewarganegaraan Untuk SMA Kelas XI*. Jakarta: Erlangga.
- Djamarah, S.B. 2002. *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta.
- _____. 2008. *Psikologi Belajar*. Jakarta: Rineka Cipta.
- Hamalik, O. 2012. *Pendekatan Baru Strategi Belajar Mengajar Berdasarkan CBSA*. Bandung: Sinar Baru Algesindo Offset.
- Kementerian Pendidikan dan Kebudayaan.2017. *Pendidikan Pancasila dan Kewarganegaraan*. Jakarta: Kementerian Pendidikan dan Kebudayaan.
- Kholik. 2011. *Metode Pembelajaran Konvensional*. Bandung: Rineka Cipta.
- Lolombulan, J.H. 2017. *Statistika bagi Peneliti Pendidikan*. Yogyakarta: Andi.
- Nurdyansyah dan Fahyuni.2016. *Inovasi Model Pembelajaran*. Sidoarjo: Nizami Learning Center.
- Rusman.2015. *Pembelajaran Tematik Terpadu Teori Praktik dan Penilaian*. Grafindo: Jakarta.
- Sanjaya, W. 2007. *Strategi Pembelajaran Berorientasi Standar Proses*. Jakarta: Kencana Prenada Media Group.
- Sani, R.A. 2019. *Strategi Belajar Mengajar*. Depok: PT Raja Grafindo Persada.
- Sitiatava, R.P. 2013. *Desain Belajar Mengajar Kreatif Berbasis Sains*. Yogyakarta: Diva Press.
- Slameto. 2003. *Belajar dan Faktor-faktor yang Mempengaruhinya*. Jakarta: Asdi Mahasatya.
- _____. 2008. *Proses Belajar Mengajar*. Jakarta: Remaja Rosdakarya.
- Suprijono, A. 2010. *Cooperative Learning Teori dan Aplikasi PAIKEM*. Yogyakarta: Pustaka Belajar.



Syahrul. 2013. *Model dan Sintak Pembelajaran Konvensional*. Bandung: Sinar Baru Algesindo.

Trianto. 2007. *Model-model Pembelajaran Inovatif Berorientasi Konstruktivistik*. Jakarta: Prestasi Pustaka.

_____. 2009. *Mendesain Model Pembelajaran Inovatif-Progresif*. Jakarta: Kencana.

Zainal, A. 2011. *Evaluasi Pembelajaran*. Bandung: PT. Remaja Rosda Karya.