



Research Article

Effect of Guided Inquiry Learning Model and Social Skills to the Improving of Students' Analysis Skills in Social Studies Learning

Kiky CHANDRA¹, I Nyoman Sudana DEGENG², Dedi KUSWANDI³,
Punaji SETYOSARI⁴.

Received: 10 December 2019 **Revised:** 27 February 2020 **Accepted:** 11 March 2020

Abstract

This research aim is to examine the application of guided inquiry learning models and social skills to improve the students' analysis skills. Social studies learning that still uses expository learning models makes students get difficulties to have analysis skills. This study was used the quasi-experimental research that *pretest and posttest control design*. The participants of the study was 132 junior high school students in grade 7th on junior high school. The data collection tools was used Social Skills Rating System (SSRS) adapted from Gresham and Elliot (1990) and tested to the learning outcomes. The research data were analyzed with ANOVA technique. The findings of the research conclude that there are differences in analysis skills of the students who taught guided inquiry learning model and expository learning model. There are differences in analysis skills of the students who have high social skills and low social skills. There is an interaction between guided inquiry learning model and expository learning model when integrated with high social skills and low social skills on analysis skills of the students.

Keywords:

guided inquiry learning model, social skills, analysis skills, social studies

To cite this article:

Chandra, K., Degeng, I.N.S., Kuswandi, D., & Setyosari, P. (2020). Improving Analysis Skills Using Guided Inquiry Learning Models and Social Skills in Social Studies Learning. *Journal for the Education of Gifted Young Scientists*, 8(1), 613-632. DOI: <http://dx.doi.org/10.17478/jegys.654975>

¹PhD Student, Department of Instructional Technology, Postgraduate, State University of Malang, Universitas Negeri Malang, Indonesia, qcandra.sa@unisma.ac.id ORCID NO 0000-0001-6762-4369.

²Prof, Dep. of Instructional Technology, Postgraduate, Faculty of Education State University of Malang, Universitas Negeri Malang, Indonesia, nyoman.sudana.d.fip@um.ac.id, ORCID NO: 0000-0003-4684-552X.

³ Doctor, Dep. of Instructional Technology, Postgraduate, Faculty of Education, State University of Malang, Universitas Negeri Malang, Indonesia, dedi.kuswandi.fip@um.ac.id, ORCID NO: 0000-0003-1005 -6641.

⁴Professor, Department of Instructional Technology Postgraduate, Faculty of Education State University of Malang, Universitas Negeri Malang, Indonesia, Faculty of Education, punaji.setyosari.fip@um.ac.id, ORCID NO: 0000-0003-0187-9785.

Introduction

21st century learning is learning that requires high-order thinking skills, because learning is designed to prepare student participation to become a post-industrial society that can solve problems, change lifestyles, the global economy and changes in values and norms (Banks, 1990). The ability to think at a high level, according to Bloom, is a skill for analysis. Analysis skills become one of the requirements to solve a problem and other skills to respond the changing of values and norms globally. Junior high school also have to respond to these challenges, especially on social studies. Social studies learning in the 21st century needs to prepare its students to become effective and productive citizens (Risinger, 2008).

The implementation of social studies at secondary school still have a lot of obstacles in implementation that is demanding to be resolved. Pertiwi (2012) told lack of teachers who have expertise in the field of social studies education, and many teachers have not been able to incorporate social skills in social studies. Wahyudi (2011) said that teachers only provide knowledge to students that makes learning boring, in which expository learning models only transfer student knowledge to achieve high order thinking skills. One part of special orderthinking skills is analysis skills.

Analysis skills of junior high school students is still lowbecause of several factors such as; (1) traditional learning which is dominated by memorization process knowledge (Witt & Ulmer, 2015); (2), the low quality of teacher and there is no support and appreciation from the school teachers who perform both the model and media (Avsec & Kocijancic, 2014); (3) the memorization model will not keep good knowledge; (4) The school curriculum in social studies learning that prioritizes events of the past (no longer relevant to today); (5) uses the technology has not advanced enough (Pratiwi, 2004); (6)the traditional model of making students is not able to find information themselves so that the students have not been able to achieve a high-level thinking skill (Study & Bilgiler, 2017).

At the junior high school level the teacher emphasizes students memorizing knowledge, not by carrying out the inquiry process. Students have difficulty developing analysis skills if they continue to use expository learning model while teachers who applied expository find easier to complete knowledge, make conclusions, and integrate knowledge from various sources (Eggen & Kauchak, 2012). The expository model is considered as one of the causes of students not being able to develop their knowledge.

There is weakness in the expository learning model make students less active and rely on the teacher to get information. The expository learning modelis characterized by questions and answers, and the teacher conveys unidirectional information (Abdi, 2014), only creating knowledge transmission (Mardiati 2018) and students who are trapped in learning by giving examples of past events. The investigation has replaced traditional teacher-centered learning of texts by giving

pupils the chance to gather evidence and solve problems logically (Secker, 2012; Boyd & Hipkins 2012). Indonesia has implemented the 2013 Curriculum and expected to be able to improve cognitive, affective, and psychomotor learning outcomes. One of the challenges of the 21st century, the learning model is able to combine with and the social skills students have (Kunt & Tortop, 2017), Learning in the millennial era should bring a variety of skills that must be possessed by students, such as life skills, problem solving, communicating and cooperating (Dasilva & Ardiyati, 2019). Thematic learning in the learning process using inquiry and discovery learning model, project-based learning. The learning model requires student learning (Permendikbud, 2016). The problem in various countries in the world is learning that does not pay attention to skills (Tortop, 2013). Even though in Indonesia, there are still many learning models that do not pay attention students' social skills. Expository on social studies learning is not fun and boring because it caused on the activity of memorizing and recording. Students have difficulty to express their ideas, so that students can not learn well.

Indonesian curriculum has adapted curriculum, but the application does not run optimally. Regulation number 21 of national education ministers in 2016 concerning basic and secondary education content standards said that social studies education at the secondary school level consists of the following: 1) understanding the concept; 2) analyze various factors that support and overcome problems or phenomena; 3) analyze various factors that support and inhibit and 4) make conclusions. The predetermined competency standards, learning is a high order thinking skill in implementation requires social skills such as asking questions, having opinions, looking for data and ect.

According to the Directorate General of Research and Technology Resources, Ministry of Higher Education (Kemendikbud), Learning in Industry 4.0 requires learning that makes students think critically, creativity, communication, and collaboration (4C) (Saregar, Diani, & Sagala, 2018). Students must have the skills to think to overcome problems related to local and global problems. Students must have analysis skills in learning (Hiong & Osman, 2015). Students are able to solve existing student problems, so they can solve problems in the future (Secker, 2012; Boyd & Hipkins 2012). Students will more easily carry out discussions by involving social phenomena around students so that students not only have the understand, but also analysis skills.

Investigation has succeeded in replacing learning from traditional teacher-centered textbooks, so students can gather knowledge and solve problems on their own (Secker, 2012; Boyd & Hipkins 2012). The guided inquiry learning model makes students more active, encourages criticism, and creates a pleasant atmosphere. During the learning process, the teacher provides questioning guidance, guides the investigation, and makes conclusions (Duran, 2016).

The guided inquiry learning model makes learning more fun and makes students more active (Sund & Trowbridge, 1990). Students determine their concepts and theories through guidance given by the teacher. As a facilitator, the teacher will help students plan and carry out investigations (Neuby, 2010). The teacher gives a little explanation before students conduct experiments, select information, and record any problems that occur. The stages in implementing the inquiry based learning model by (Joyce, 2000) are as follows.

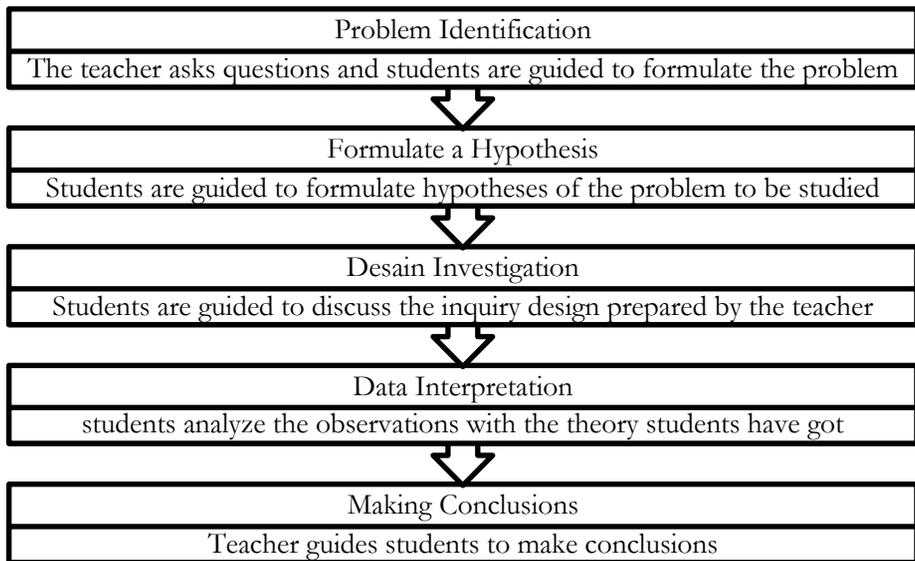


Figure 1.

The Stages of Guided Inquiry Learning Models

Answering the challenges of the 21st century, learning needs to combine learning of students' social skills (Kunt & Tortop, 2017). Schools and parents need to develop their role in developing social skills in a sustainable manner (Scott & Sabey, 2014). The same thing was said by Kaiser (2009) teachers developing social skills in each learning session, making students have better social skills than students who are not given skills development. Gulo (2005) says guided inquiry learning capital is able to develop cognitive abilities, and skills social owned by students.

Social skills are important in achieving emotional readiness at school, so that when students can behave well with teachers, friends, or others (Shepherd, 2010). Self-regulating skills are the main skills students must possess. Through self-regulation skills, students can control one's behavior (Tortop, 2015). Learning will be better if students are able to control themselves (Tortop, 2015).

Shambaugh and Magliaro (2006) state that there were five main themes of this current learning concept, namely: (1) organizing knowledge; (2) solve the problem; (3) develop learners; (4) learning how to learn; (5) live and learn in words. There are seven survival skills should be available to everyone if they want to survive in

the 21st century, one of which is of critical thinking and communication skills (Wagner, 2008). Social skills are one of the skills that must be possessed by the students. Through social skills help students to have a sense of curiosity, responsibility, empathy, and self-control during the process of investigation.

Students must have social skills in order to have a good attitude and character. Teacher efforts are needed to facilitate the improvement of social skills in order to improve student achievement (Kaiser, 2009). Social skills make students into cooperative learning, cooperative (Watson & West, 2010). Students' social skills in learning such as asking questions, communicating and working together. Guided inquiry learning models able to make students who have questioning skills in learning (Ariyani, Maulina, & Design, 2019). Guided inquiry learning will be more effective in groups and easier to form social skills (Ansala, 2015). Through groups students will be trained to control emotions, praise, accept others' opinions and others.

Joyce (2000) determined the steps of the guided inquiry learning model as follows: Formulating a Hypothesis, investigating designs, increasing information and drawing conclusions. These learning steps are a high-level skills requirement, namely analysis and skills social skills. Social skills are needed in improving analysis skills, especially in guided inquiry learning that requires social skills in improving analysis skills. Social skills that are indispensable in the analysis skills formulate hypothesis, design investigation, data implementation and making conclusion. Students can apply the skills they hold either by discussing, being capable to use gadgets or books in looking for references, the skills to talk, make questions, the skills to discuss, help, ask for help and consider, can requested, etc. (Farisi, 2016; Ariyani, Maulina & Design, 2019; Avsec & Kocijancic, 2014; Opara & Oguzor, 2011).

Researchers wishing to address the problems in which analysis skills junior high school students are still low in integrated social studies learning. To overcome this problem, researchers use a guided inquiry learning model compared with the expository learning model. There are many studies that discuss the benefits of guided inquiry and social skills, but none have examined skills analysis for junior high school students in social studies learning. Therefore, researchers examine the use of guided inquiry and expository learning models, social skills that are different from students' analysis skills.

Research Problems

In this study, it is aimed to investigate the effect of the guided inquiry-based learning model used in the social studies course to improve of junior high school students' analysis and social skills. The main problem of study is that; is there any effect of improving of junior high school students' analysis and social skills?

The sub-problems of the research are as follows;

- Is there a significant difference in the analysis and social skills of the junior high school students in the use of the guided inquiry-based learning model used in the social studies course and the expository learning model?
- Is there a significant difference in the analysis skills of the junior high school students who have high social skills and low social skills?
- Is there a significant relationship between guided inquiry-based learning model, social skills, and analysis skills?

Method

Research Design

The design selected research is a quasi-experiment with an experimental class and the control class as a comparison. This research design is a pretest and posttest control design (Creswell, 2009). The experimental classes use guided inquiry and control classes using expository. In this study, experimental class and control class were given a social skill questionnaire to see high and low level of students' social skill, and given were pretest, after the learning process with the application of guided inquiry and expository learning, students were given a post-test to analysis skills comprehension.

Participants

The study population was students of class VII Junior High School 1 Lamongan East Java Indonesia. Research samples are 132 Students in VII grade. The control group totalling 66 students in 2 classes were treated using expository and the experiment totalling 66 students in 2 classes guided inquiry. Cluster Sampling was applied because the samples were taken from available classes which were used as experimental groups and control groups (Creswell, 2009). The researchs amples details are as follows

Table 1.

Description of Participants

Subject	Class	Students	Learning Model
Experiment	VII F	33	Guided inquiry
	VII G	33	
Control	VII H	33	Expository
	VII I	33	
Amount	132 students		

Instruments

The Social Skills Rating System (SSRS)

This study was used SSRS adapted from (Gresham & Elliot, 1990). SSRS evaluates the social behaviors of children and adolescents. The questionnaire comprised of five indicators of social skills of cooperation, assertion, responsibility, empathy, and self-control. In this study, Cronbach Alpha reliability coefficient ,0942 was

found. Researchers divided the social skills of high and low social skills of each class control and experiments. The questionnaire social skills details are as follows:

Table 2.

Indicators of Gresham and Elliott's Social Skills Rating System

No	Indicators	Sub Indicator
1	Cooperation	a. Joining a different friend
		b. Timely task.
		c. Maintain cleanliness and tidiness.
		d. Enjoy free time.
		e. Follow directions and instructions
		f. Ignore distractions.
2	Confirmation	a. Make friends easily.
		b. Ask for help when in need.
		c. Confident in interactions.
		d. Participated in several activities.
		e. Give praise.
		f. Start the conversation.
		g. Invite other stop participate in an activity.
		h. Volunteered to help.
		i. Defending friends who are not treated well.
3	Responsible	a. Say good things.
		b. Receive punishment of adults.
		c. Follow directions and rules.
		d. Report something right.
		e. Liked by others / social acceptance.
		f. Present the work well
4	Empathy	a. Understand the feelings of others.
		b. Receive lack of physical overage friend
		c. Feeling sorry for the bad things that happen to other people.
		d. Listen to a friend who told me about the problem.
		e. Expressing according to the state
		f. Defending a friend who did not get fair treatment.
5	Self control	a. Ignore the temptation or distraction.
		b. States do not agree with not angry.
		c. Avoid things that cause problems.
		d. Doing something good.
		e. Compromise with the opinions of others.
		f. Controlling emotions.

- g. Accept criticism without tanger.
- h. Respond appropriately to the behavior of others.
- i. Rejecting something politely.
- j. Speaking with the right one.

Analysis Skills Test (AST)

The AST is consists of 20 questions; 10 multiple-choice questions, 5 and 5 essay description. The AST was found coefficient of Alfa Cronbach's reliability of 0,0887. Students's analysis skills was determined twice at the pretest and posttest. Pretest to measure students' initial and posttest was done to measure the final skills after given a learning model

Research Procedure

Pre-treatment: All of participants were firstly given a questionnaire, social skill to see high level students' social skills and low level of students' social skill. Experimental class and control class given were pretest to show analysis skills of students before being given treatment. Then posttest was done to identify the effect of guided inquiry and expository treatment on analysis skills students' comprehension. Research procedure details are as follows:

Table 3.

Research Procedure

Subject	Questionnaires	Week							
		1	2	3	4	5	6	7	8
Experiment	Social Skills	Pretest	Guided Inquiry					Posttest	
		Control	Pretest	Expository					Posttest

Data Analysis

This study uses ANOVA using SPSS 25 to analyze data. This hypothesis test is conducted to find out whether there are significant differences in analysis skills between the control class and the experimental class and whether there is an interaction between the learning model and social skills. Before the ANOVA is carried out, researchers tested homogeneity with the Kolmogorov-Smirnov and normality of data with the Levene test.

Result

The learning result is an effect that there is about the application of learning model. The effect of the use of the model can be designed (pre-determined), then that model should be chosen so that optimally achieve the learning objectives. Bloom himself divides the realm of science into five levels, namely knowledge (know), comprehension (understanding), application (apply), analysis (analysis), synthesis (creation), and evaluation (evaluation). According to Bloom, Analyze is categorized

as materials and concepts into parts so that the structure is easy to understand settings).

Analyzing is the skills to decompose the material into parts. The skills to analyze may: (a) finite element analysis (identifying the parts of matter); (B) analysis of the relationship (to identify relationships); (C) organizing principle analysis (identifying the organization). The steps of guided inquiry learning model in social studies learning details are as follows:

Table 3.

The Steps of Guided Inquiry Learning Model in Social Studies Learning

No	Lesson	Phase	Teacher and Student Activity
1	Initial Activity	Preliminary	<ol style="list-style-type: none"> 1. Greeting. 2. Motivate the student's words 3. Roll student 4. The teacher gives an overview of the social phenomena that will be examined Students 5. Student-teacher gives a response to question posed.
2	Core Activities	Identification and determination of the scope of the problem	<ol style="list-style-type: none"> 1. Teachers deliver the learning objectives and steps - step guided inquiry. 2. The teacher then divides the class into five groups to discuss and make observations. 3. Students try to understand the problem to be discussed with the picture that the group brings about social phenomena
2	Core Activities	Formulation of hypotheses	<ol style="list-style-type: none"> 1. Teachers, together with students to formulate questions about a problem that requires students to analyze it. 2. Students are guided to formulate hypotheses 3. Teachers give students the chance to argue and answer any questions that the students
2	Core Activities	Designing experiments	<ol style="list-style-type: none"> 1. The teacher assigns students to gather data or information from a variety of sources. 2. Teachers guide students to gather and select data or information through the formulation of questions teachers 3. The teacher guides students to investigate by answering the formulation of the problem
2	Core Activities	Interpretation of data	<ol style="list-style-type: none"> 1. Students will make sense of all the data or information that has been gained in the

		necessary data and analyzed following the hypothesis that previously made.
		2. Students analyze the data obtained and made papers.
		3. Students present the results of the report drawn up in front of the class
	develop	1. Shiva was allowed to ask
	conclusions	2. Students conclude a problem.
3	Closing Activities	1. The teacher guides students to draw conclusions from student discussions. The teacher gives students an appreciation of the best students.
		2. Closing the lesson with regards

Table 3 shows the implementation of guided inquiry in social studies learning. The teacher's role in guiding students has replaced direct knowledge transfers and allowed students to seek their knowledge through inquiry. Students seek knowledge from various sources in accordance with the direction of the teacher, this will make students more active.

The Significant Differences Analysis Skillsof The Students by the Use Of Guided Inquiry and Expository Learning Model

The researcher performs a pretest to find out analysis skills before being given the treatment of the guided inquiry and expository learning model. After that, the researcher does a posttest to find out the students' analysis skill after being given the treatment of guided inquiry and expository learning model. Comparison of Pretest and Posttest Scores details are as follows.

Table 4.

Comparison of Mean Pretest and Posttest Scores

Subject	Pretest	Posttest
Control Class	73,17	80,08
Experiment Class	74,68	81,83

Table 4 shows pretest-posttest tests conducted in the experimental class and the control class. In the experimental group, the pretest mean a score of $\bar{X} = 74,68$ while the mean score at the posttest was $\bar{X} = 81,83$. In the control group, the mean score was $\bar{X} = 73,71$ pretest at the posttest, while the mean value was $\bar{X} = 80,08$. The following is a pretest-posttest figure 1.

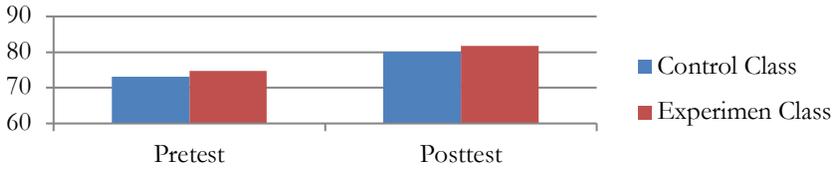


Figure 2.

Pretest Posttest Control Experiment Class

Figure 2 shows the chart above can be seen if the experimental class analysis skills are higher, both for pretest and posttest by comparison with the control class that has a value of pretest and posttest lower. The Guided Inquiry Learning model is more effective in improving the analysis skill compared with the expository teaching model.

The Differences in Analysis Skills of the Students Have High Social Skills And Low Social Skills

Furthermore, researchers looked at the ability of the pretest and posttest analysis in students who have high social skills and low social skills in the control class and the experimental class. The details of the comparison of Pretest and Posttest scores on social skills are as follows.

Table 5.

Comparison of Mean Pretest and Posttest on Social Skills Scores

Control Class				Experiment Class			
Low Social Skill		High Social Skill		Low Social Skill		High Social Skill	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
71,94	77,58	74,39	82,85	70,65	78,78	76,84	83,47

Table 5 shows the pretest-posttest tests conducted in the experimental class and the control class according to students' social skills. The control class students who have high social skills, the pretest mean a score of $\bar{X} = 74.39$ while the mean score at the posttest was $\bar{X} = 82.85$. In the control class students who have low social skills, the pretest mean a score of $\bar{X} = 71.94$ while the mean score at the posttest was $\bar{X} = 77.58$. The experimental class students who have high social skills, pretest means a score of $\bar{X} = 76.84$ while the mean score at the posttest was $\bar{X} = 83.47$. In the experimental class students who have low social skills, the pretest mean a score of $\bar{X} = 70.65$ while the mean score at the posttest was $\bar{X} = 83.47$.

The Interaction between Guided Inquiry Learning Model and Expository Learning Models When Integrated With High Social Skills And Low Social Skills To Improve Analysis Skills

Researchers will conduct prerequisite tests using normality and homogeneity tests before conducting hypothesis testing through the ANOVA test. To perform the

test of this hypothesis, the statistical test technique used was ANOVA, where he must have the prerequisite test 1). Normality of data, and 2). Homogeneity Variance.

Normality Test Data

A normality test is used to determine the data that has been collected in the normal distribution or taken from the normal population. Normality is useful to determine the data that has been collected normally distributed or taken out of the normal population. This study conducted a normality data test using the Kolmogorov-Smirnov test. Data that has a normal distribution if it has a value greater (sig) greater than 0.05. Data that has an abnormal distribution if it has significant value (sig) less than 0.05,

Table 6.

Normality Test

		Test of Normality					
		Kolmogorov-Smirnov			Shapiro-Wilk		
Learning modes		Statistic	df	Sig	Statistic	df	Sig
Analysis skills	Guided Inquiry	,0951	66	,200	,972	66	,146
	Expository	,103	66	,080	,080	66	,034

Table 6 shows Normality test, after using the Kolmogorov Smirnov test with a significance level of 0.05. In the experimental group obtained a value of $0.200 > 0.05$ and the control class has a significant level of $0.80 > 0.05$. Because the experimental class and the control class has significance greater than 0.05, the data in this study were able to be distributed normally

Homogeneity Variant

The homogeneity test is intended to assure data to be analyzed derived from a population that is not much different in diversity / Homogeneous. To test the homogeneity of variance in research, Levene test was used with a significance level of 0.05, which means that if the value of significant (sig) is greater than 0.05, then the research data homogeneous whereas if significant value (sig) is less than 0.05, then the research data is not homogeneous.

Table 7.

Test of Homogeneity of Variances

		Test Of Homogeneity Of Variances			
		Levene Statist	Df1	Df2	Sig
Analysis	Based on Mean	.471	1	130	.494
	Base On Median	.421	1	130	.518
	Based on median and with adjusted df	.421	1	129.9965	.518
	Based on trimmed mean	.473	1	130	.493

Table 7 shows the homogeneity variance test. Analysis skills in the experimental class and the control class have a significance value of $0.494 > 0.05$ sig. This data also shows the analysis skills of two classes, showing homogeneous variants.

Table 8.

Test ANOVA Guided Inquiry Learning Models and Expository Learning Models When Integrated Into Different Social Skills

Tests of Between-Subjects Effects					
Dependent Variable: the skills of analysis					
Source	Type III Sum Squares	df	Mean Square	F	Sig.
Corrected model	2139.131a	3	713.044	163.128	.000
Intercept	233416.293	1	233416.293	53400.218	.000
Social skills	1919.021	1	1919.021	439.027	.000
Learning Model	38.791	1	38.791	8.875	.003
Social Skill Learning models	41.505	1	41.505	9.495	.003
Error	559.497	128	4.371		
Total	255705.000	132			
corrected Total	2698.629	131			
a.	b. R Squared = .793 (Adjusted R Squared = .788)				

Table 8 shows that ANOVA test, based on the above, it can be seen as follows: There is a significant difference in students' analysis skills using guided inquiry learning model and expository learning model with a significance value of .00 ($\text{sig} < 0.05$). The guided inquiry learning model can improve analysis skills than the expository learning model. There is significant differences in the analysis skills of students who have different social skills (High social skills and low social skills) with a significance value of 0.03 ($\text{sig} < 0.05$). Groups that have high social skills have analysis skills level higher than the group of students who have low social skills. There is an interaction between guided inquiry learning model and expository learning model when integrated with high social skills and low social skills to improve the analysis skills have a significant value of 0.03 ($\text{sig} < 0.00$).

Discussion and Conclusion

Classroom experiments using the guided inquiry learning model have higher analysis skills than the control class that uses the expository teaching method. This is according to research conducted by Wahyu (2017) which states that the learning outcomes with a high value on social learning gained through guided inquiry learning method rather than expository. Social studies learning that has skills to high order thinking skill researchers use guided inquiry learning model.

Based on research conducted by the researchers, guided inquiry learning model is better than the expository teaching model in several aspects: 1) student charged with finding information or their knowledge so that students are more active than having to wait for the teacher to impart knowledge; 2) the position of the teacher is not a center of learning but as a facilitator during the learning process. Teachers provide instruction that allows students to explore the correct information. Learning is student center where students become the dominant party to get a variety of answers to statements that have given; 3) Train students to think systematically, logical and critical or develop intellectual abilities as part of the mental process and 4) Students are required to define their own concepts and theories through the instructions given by the teacher. The teacher makes questions that guide students to do questions. He also gives explanations that are appropriate to the needs of students who conduct experiments or choose information. She also explained as needed when students conduct experiments or select the information that will be selected. (Farisi, 2016; Ariyani, Maulina & Design, 2019; Avsec & Kocijancic, 2014; Opara & Oguzor, 2011)

During the lesson, the teacher who guided inquiry learning model the teacher perform the following scenarios: The teacher demonstrates the problem and ask questions to the students to be solved and answered. Students guided by the teacher to find the answer while on the existing problems. Students find evidence to support the hypothesis and assigned teachers guiding students to get the data right. The students analyze the problems with the support of the existing data, and the teacher has the task of delivering a wide range of questions to cultivate the skills to analyze. Teachers and students together to conclude. Steps in guided inquiry encourage students to build their knowledge (Blackmore & Fraser, 2007).

During the implementation of the guided inquiry learning model, the teacher gives students a problem. Learning by using a phenomenon social more effective in developing the analysis skills of students. When learning takes place, teachers give problems and phenomena that exist around the residence of students (Damawati and Juanda, 2016). Students need the help of teachers and parents to develop the idea of learning (Tortop, 2013). Students can identify and raise the issue because of the questions given in the environment around the student. The student already has an initial picture and be familiar with the phenomenon. The use of scaffolding in the application of guided inquiry provides a positive impact on student achievement. Scaffolding assist students in formulating hypotheses made when learning takes place (Dasilva & Ardiyati, 2019).

The use case examples close to the students both in providing the direct experience or through the media will be easy to remember and analyzed by the students. For example, the case of forest fires, floods, landslides, urban, and rural. There are examples of cases that students will more easily be generalized for the learning process by adding the relevant theory with the help of a teacher. Examples

from personal experience would easily be generalized by the students (Pellegrino & Kilday (2013), guided inquiry learning model emphasizes learning and cognitive discovery and make students have a high-level thinking skill (HOTS) (Lee, 2014)

Guided inquiry learning model can analyze, connect the evaluation, and assessing can overcome various problems in Student groups, tend to be more enthusiastic so that students can identify, investigate, analyze the problem and be able to think logically and correctly. Students will conduct an investigation to set questions that make students more creative and be able to analyze in depth (Rone. 2008). Teacher as facilitator guides the form of questions or statements that increase students' curiosity. Teachers allow students to search for information from various sources and exchange opinions among members of the group. The guided inquiry learning model limits the amount of the transfer of knowledge between teachers and students. Through this process, students build their information (Witt & Ulmer, 2010)

Students build information to discover knowledge on their own or in groups. Also, the expository teaching model performed by the control class is unable to provide an opportunity for students to participate actively during the learning process (Opara & Oguzor 2011). Model expository less able to make students develop analysis skills. Integrated social studies lesson where the teacher gives students a problem around less suitable when using the expository teaching model. By having good social skills that include the skills to communicate, establish relationships with others, respect themselves and others, to listen to the opinions and complaints from others, give feedback and receive feedback, students can adapt to their environment.

Students used the internet for looking the data to support IPS learning in the 21st century (Risinger, 2008). When they used gadget, they used their social skills to (selecting and analyzing the data). There are three skills in the 21st century including learning and innovation skills, media use skills, and life and career skills (Pharisees, 2016).

The guided inquiry learning model requires students to be more active in every lesson (Ansala, 2015) Development of information requires students to frequently asked questions, working together, to accept criticism, respect for others, responsibly receive suggestions and criticism, respecting others, and can control themselves, where the attitude is part of social skills (Watson & West, and, 2010; Shambaugh and Magliaro, 2006). For students who have poor social skills, they tend to prefer to learn alone, less active, shy to ask questions, work together, have no self-control well, and even received feedback from friends or teachers, which causes the analysis skills lower than for students have good social skills.

Communication is the main thing that determines the success of the students said to be able to analyze. Through social skills, students can ask questions (Ariyani, Maulina, & Design, 2019) , explain, connect, and connecting the parts so

students can create a creative force to combine different types of information into a single new knowledge in the form of higher-level thinking.

Students need social skill using the guided inquiry learning model. The existence of this interaction will improve students' analysis skills. Guided inquiry emphasizes the fact-finding and curiosity so that during the proceedings, the students will communicate with each other and exchange information and interact with one another. That is part of social skills. Guided inquiry makes students more active, can work together, able to solve problems and have good self-control (Avsec & Kocijancic, 2014). Guided inquiry enables students to enhance their curiosity, to be active, make decisions, work together and develop all the social skills they possess (Opara & Oguzor, 2011).

During the investigation process, the students practice while developing their social skills, but teachers are also involved in developing the social skills of the students (Hareesol, 2019). Based steps guided inquiry learning model example of investigation, hypothesis, testing, evaluation, and implementation of new information is part of high-level skills. Therefore the model of guided inquiry supported by social skills will enhance the analysis skills.

Characteristics of the curriculum in 2013 require high-level thinking skills and prioritize the development of cognitive, affective and psychomotor. Lessons need to encourage collaboration; use of human resources can take the initiative and critical thinking, and problem-solving. In the era of the 21st century, the guided inquiry is necessary. This corresponds primarily to says he suggested that we want to learn the knowledge century project-oriented paradigm, problem, inquiry (Ardhana, 2000; Palmer, 2001).

This study found higher analysis skills of students when using a guided inquiry learning method and social skills. It needs a learning model that combines with social skills so that the learning outcomes will increase learning outcomes, especially the ability of the analysis. Social studies learning that has ability to high order thinging skill researchers use guided inquiry learning model. Where there are still many students, who have the ability to think critically.

The guided inquiry learning model requires students to be more active in every lesson. Development of information requires students to frequently asked questions, working together, to accept criticism, respect for others, responsibly receive suggestions and criticism, respecting others, and can control themselves, where the attitude is part of social skills. Students need social skill using the guided inquiry learning model. The existence interaction of guided inquiry and social skill will improve students' analysis skills.

The recommendations of this study are to overcome the problems in learning 21 guided inquiry model is suitable for use in Social studies learning that requires students to investigate. Internal factors to consider are the characteristics of students, the research location, gender, and potential students, while external

factors such as family background, family education, environment friendship, etc. It can be involved. Further research needs to be developed so that more learning can be more effective and efficient. Limitation of the study is plagued with a learning design that only takes one sample; further research is expected to take place various sampling.

Acknowledgements

The acknowledgment of research was supported by the Ministry of Religion of the Ministry of Religion through a 5,000 Doctor Morascholarship Program, Malang University (UM) as an educational institution for researchers and Lamongan Islamic University (UNISLA) especially the PGMI study program where researchers worked.

Biodata of the Author



Kiky Chandra Silvia was born in Lamongan, East Java, Indonesia on March 14, 1990. She is a Doctoral student in Postgraduate Instructional Technology, Faculty of Education. She also a Lecturer at the Faculty of Islamic Religion, Department of Elementary School Teacher (Pendidikan Guru Madrasah Ibtidaiyah/PGMI) Universitas Islam Lamongan, Indonesia. **Affiliations:** Faculty of Islamic Studies, Lamongan Islamic University Lamongan, Indonesia. **Email:** qcandra.sa@unisla.ac.id

Orcid No: 0000-0001-6762-4369 **Phone:** (+62) 85704057572 **SCOPUS ID:** -
WoS Researcher ID : -



Prof. Dr. I Nyoman Sudana Degeng, M.Pd was born in Klungkung Denpasar Bali Indonesia, September 23, 1958. He is a Professor of Instructional Educational at the State University of Malang Indonesia. **Affiliations:** Department of Instructional Technology, Postgraduate Faculty of Education, State University of Malang, Indonesia. **Email:** nyoman.sudana.d.fip@um.ac.id

Orcid No: 0000-0003-4684-552X **Phone:** (+621)8123394048 **Scopus ID:** 57202321151 **WoS Researcher ID :** -



Dr. Dedi Kuswandi, M.Pd was born in Bandung Indonesia, January 8, 1964.. He is a lecturer at Instructional Educational at the State University of Malang Indonesia. **Affiliations:** Department of Instructional Technology, Postgraduate Faculty of Education, State University of Malang, Indonesia.

Email: dedi.kuswandi.fip@um.ac.id **Orcid Number:** 0000-0003-1005-6641 **Phone:** (+62)81235793481 **Scopus ID:** 57194130351 **WoS Researcher ID :** -



Prof. Dr. Punaji Setyosari, M.Ed, He was born in Wajak, Malang, Indonesia, on June 15, 1959. He is Profesor at Instructional Educational at the State University of Malang Indonesia. **Affiliations:** Department of Instructional Technology, Postgraduate Faculty of Education, State University of Malang, Indonesia. **Email:** punaji.setyosari.fip@um.ac.id **Orcid no:** 0000-0003-0187-9785 **Phone:** (+62) 8123395817 **Scopus ID:** 57191276640 **WoS Researcher ID :** -

References

- Abdi, A. (2014). The effect of inquiry-based learning models on students' academic achievement in science course. *Universal Journal of Educational Research*, 2(1), 37-41.
- Ansala, L., Uusiautti, S., & Määttä, K. (2015). Student unions as the way of learning democracy skills - successful finnish university student activists' perceptions. *International Journal Arts & Sciences*, 8(6), 31-44.
- Ardhana, I. W. (2000). *Penelitian Pendidikan*. Malang: Departemen Pendidikan Nasional UNM.
- Ariyani, F., Maulina, H., & Design, N. (2019). Design and validation of inquiry-based STEM learning strategy as a powerful alternative solution to facilitate gifted students facing 21st century. *Journal for the Education of Gifted Young Scientists*, 7(3), 33-56. <https://doi.org/10.17478/jegys.513308>.
- Avsec, S., & Slavko, K. (2014). Effectiveness of inquiry-based learning: how do middle school student learn to maximize the efficacy of a water turbin?. *International Journal Of Engineering Education*, 30 (60A), 1436-1449.
- Banks, J.A., & Clegg Jr, Ambrose, A. (1990). *Teaching strategic for the social studies: inquiry valuating and decision-making*. New York: Longman.
- Blackmore, P., & Fraser, M. (2007). Research-based learning strategies for successfully linking teaching and research. *Journal of Education*, 13(2), 1-13.
- Boyd, S., & Hipkins, R. (2012). Student inquiry and curriculum integration: shared origins and points of difference (Part A). *Research Information for Teachers*, 3(1), 15-23.
- Creswell, J. (2009). *Research design qualitative, quantitative and mixed methods approach* (3rd ed.). Thousand Oaks: SAGE Publication, Inc.
- Damawanti, N.A.C., & Juanda, E.A. (2016). The effect of inquiry-based learning on the reasoning ability of grade VII students about heat concept. *Jurnal Pendidikan Fisika Indonesia*, 12(1), 19-25.
- Dasilva, B.E., & Ardiyati, T.K. (2019). Development of android-based interactive physics mobile learning media (IPMLM) with scaffolding learning approach to improve HOTS

- of high school students. *Journal for the Education of Gifted Young Scientists*, 1(7), 659–681.
- Duran, M. (2016). The effect of the inquiry-based learning approach on student's critical-thinking skills. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(12), 2887-2908.
- Farisi, M. I. (2016). Developing the 21st-century social studies skills through technology integration. *Turkish Online Journal of Distance Education*, 17(2), 16-30.
- Gresham, M. F., & Elliot, S. N. (1990). *Social skills rating system manual*. Circle Pines, MN: AGS.
- Gulo, W. (2005). *Metodologi penelitian*. Jakarta: PT. Grasindo.
- Hiong, L.C., & Kamisah, O. (2015). 21st Century Biology An Interdisciplinary Approach of Biology, Technology, Engineering, and Mathematics Education. *Procedia Social and Behavioral Sciences*, 102(2013), 188-194.
- Joyce, Bruce., & Weil. (2000). *Models of Teaching*. Amerika: A. Pearson Education Company.
- Kaiser, L., Rosenfield, S. & Todd, G. (2009). Teachers' Perception of Satisfaction, Skill Development, and Skill Application After Instructional Consultation Services. *Journal of Learning Disabilities*, 42(5). 444-457.
- Kunt, K., & Tortop, H.S. (2017). Examination of Science and Technology Teachers' Attitude and Opinions Related Giftedness and Gifted Education in Turkey. *Journal for the Education of Gifted Young Scientists*, 5(1), 37-54.
- Lee, H. Y. (2014). Inquiry-based teaching in second and foreign language pedagogy. *Journal of Language Teaching and Research*, 5(6), 36–44.
- Yayuk., M., & Leba, K. (2018). Employing food bank in civic education as a pedagogical tool in project-based learning. *Journal of Social Studies Education Research*. 9 (4), 352-363.
- Neuby, Barbara. (2010). Inquiry teaching in the college classroom. *The Journal of Effective Teaching*, 10(1), 4-21.
- Opara, J.A., & Oguzor, N.S. (2011). Inquiry learning model and the school science curriculum. *Journal of Social Sciences*, 3(3), 188–198.
- Pellegrino, Anthony M. (2013). Hidden in plain sight: preservice teachers' orientations toward inquiry-based learning in history. *Journal of Social Studies Education Research*. 4(2), 1-26.
- Pratiwi, S.E. (2012). *Analisis kesulitan guru dalam pembelajaran IPS terpadu(studi kasus pada SMP Negeri 8 Kota Malang)*. Universitas Negeri Malang.
- Risinger, C.F. (2008). Teaching and learning about skills for the 21st century using the internet. *Social Education*, 72(7), 380–382.
- Rone, T.R. (2008). Culture From Outside And Inside: Experimental Education And Continuum of Theory, Practice, And Policy. *Journal Teaching College*, 56(4),37-46.
- Scott, W., Ross, PdD., & Christian V. Sabey. (2014). Check-in check-out+social skills enhancing the effect of check-in checkout for student with social skill deficits. *Remedial and Special Education*, 36(4). 246–257. <https://doi.org/10.1177>
- Saregar, A., Diani, R., & Sagala, R. (2018). Temperature and heat learning through sscs model with scaffolding: impact on students ' critical thinking ability. *Journal for the Education of Gifted Young Scientists*, 6(3), 39-54.
- Secker., V.C. (2002). Effects of inquiry-based teacher practices on science excellence and equity. *The Journal of Educational Research*, 95(3).
- Shambaugh, N., & Magliaro, S.G. (2006). *Instructional design*. USA: Pearson.
- Shepherd, T. (2010). *Working with students with emotional and behavior disorders*. New Jersey: Pearson Education, Inc.
- Sund, R.B., & Trowbridge, L.W. (1973). *Teaching Science by Inquiry in the Secondary School*. Second edition. Columbus, Ohio: Charles E. Merrill Publishing Company.
- Tortop, H. S. (2013a). Science teachers ' views about the science fair at primary education level. *Journal for the Education of Gifted Young Scientists*, 4(2), 56–64.

- Tortop, H. S. (2013b). A new model program for academically gifted students in turkey : overview of the education program for the gifted students ' bridge with university (EPGBU). *Journal for the Education of Gifted Young Scientists*, 1(2), 21–31.
- Tortop, H. S. (2015). A comparison of gifted and non-gifted students ' self-regulation skills for science learning. *Journal for the Education of Gifted Young Scientists*, 3(1), 42–5.
- Trilling, B., & Charles, F. (2009). 21 st. *Century Skills Learning* for. Life of Our Times. San Fransisco: Jossey-bass.
- Wahyudi, D. (2011). Social studies learning based on interpersonal and existential intelligence. *Education Journal*. 1, 33-45.
- Wagner, T. (2008). *The Global Achievement Gap*. New York: Basic Books.
- Christy, W., & Ulmer, J. (2010). The impact of inquiry-based learning on the academic achievement of middle school students. *Western AAAE Research Conference Proceedings*. 269-282.