

## THE EFFECT OF DISCOVERY LEARNING MODELS AND LEARNING STYLE ON STUDENTS' INTERPERSONAL INTELLIGENCE IN SOCIAL STUDIES SUBJECTS

**Neneng Koes Hariyanti, Sabariah, Endah Yulia Rahayu**

*Educational Technology, Postgraduate Program, PGRI Adi Buana University Surabaya,  
Jl. Dukuh Menanggal XII, Dukuh Menanggal, District. Gayungan, Surabaya, Indonesia  
[lalanekhi805@gmail.com](mailto:lalanekhi805@gmail.com)*

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### Abstrak

Tujuan dari penelitian ini untuk mengetahui hasil pengujian: Pengaruh Antara *Model Discovery Learning* dan Gaya Belajar visual, auditori dan kinestetik Terhadap Kecerdasan Interpersonal Siswa pada mata pelajaran IPS. Penelitian yang bersifat eksperimen dan Subjek dalam penelitian ini adalah siswa Kelas VII sekolah negeri di kota Surabaya yang terdiri dua kelas yaitu kelas Eksprimen dan kelas kontrol. Hipotesis penelitian ini diuji menggunakan uji statistika ANOVA. Berdasarkan hasil pengujian hipotesis dan pembahasan maka dapat disimpulkan Terdapat perbedaan pengaruh penggunaan *Model Discovery Learning* dan metode ceramah terhadap Kecerdasan Interpersonal, Terdapat perbedaan pengaruh Gaya Belajar yang berbeda terhadap Kecerdasan Interpersonal pada mata pelajaran IPS Kelas, siswa dengan memiliki kecenderungan gaya belajar yang menggunakan *Model Discovery Learning* yaitu gaya belajar visual dan audio, sedangkan siswa dengan memiliki kecenderungan gaya belajar yang menggunakan metode ceramah adalah gaya belajar audio, dan Terdapat pengaruh interaksi antara *Model Discovery Learning* dan Gaya Belajar yang berbeda terhadap Kecerdasan Interpersonal, dalam hal ini gaya Belajar yang berbeda sebagai variabel moderator sangat mendukung hubungan yang kuat antara variabel bebas dan variabel terikatnya. Pengaruh penggunaan *Model Discovery Learning* dengan Gaya Belajar yang berbeda dapat meningkatkan Kecerdasan Interpersonal siswa

**Kata Kunci:** *Model Discovery Learning*; Gaya Belajar; Kecerdasan Interpersonal; mata pelajaran IPS

### Abstract

*The purpose of this study was to determine the results of the test: The Influence Between the Discovery Learning Model and Visual, Auditory and Kinesthetic Learning Styles on Students' Interpersonal Intelligence in Social Studies. This experimental research and the subjects in this study were VII grade students of public schools in the city of Surabaya consisting of two classes, namely the Experimental class and the control class. The hypothesis of this study was tested using the ANOVA statistical test. Based on the results of the hypothesis testing and discussion, it can be concluded: There is a difference in the influence of the use of the Discovery Learning Model and the lecture method on Interpersonal Intelligence, There is a difference in the influence of different Learning Styles on Interpersonal Intelligence in Social Studies Class subjects, students with a tendency to use the Discovery Learning Model are visual and audio learning styles, while students with a tendency to use the lecture method are audio learning styles, and There is an interaction effect between the Discovery Learning Model and different Learning Styles on Interpersonal Intelligence, in this case different Learning styles as moderator variables strongly support a strong relationship between the independent variable and the dependent variable. The effect of using the Discovery Learning Model with different Learning Styles can improve students' Interpersonal Intelligence*

**Keyword:** *Discovery Learning Model; Learning Style; Interpersonal Intelligence; Social Studies Subject*

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## INTRODUCTION

The parameters for achieving the learning objectives in Social Studies can be seen from students' Interpersonal Intelligence. Students' Interpersonal Intelligence is the ability they acquire after receiving instruction and can indicate success in the learning process. It is expected that students achieve optimal Interpersonal Intelligence during the learning process. However, based on data obtained shows that Interpersonal Intelligence in Social Studies is still relatively low. This is supported by the results of the TIMSS (Trends in International Mathematics and Science Study), PISA (Programme for International Student Assessment), and National Examination scores.

The low level of Interpersonal Intelligence in Social Studies indicates that students have not yet fully mastered the competencies required in this subject and often find it difficult to understand (Ali Akbar, 2023; Nur'aini & Hamzah, 2023). Therefore, it is important to re-examine the factors that influence this issue. According to Hanifah et al. (2023), several factors affect Interpersonal Intelligence in Social Studies, particularly environmental factors such as the teacher's teaching ability, the choice of teaching methods or models, and the creation of an effective and engaging learning environment. This analysis shows that teachers play a crucial role in influencing students' Interpersonal Intelligence in Social Studies, especially in selecting the appropriate learning model.

Based on the existing conditions and several learning challenges, there is a need for teachers to engage in continuous and systematic efforts to enhance the effectiveness of Social Studies instruction. One effective approach that can be employed is the Discovery Learning Model, which provides students with greater opportunities to participate actively in the learning process (Aisyah et al., 2024; Laili, Lestari, & Sudewiputri, 2024; Nurrahmayani & Yusni, 2024). Discovery Learning is a teaching model that directly involves students in problem-solving during their education (Alhadi & Wakhinuddin, 2024; Bahtiar & Muhammad, 2024; Saota, 2024).

Several studies indicate that teachers have not yet fully implemented learning activities according to established standards. Research conducted by Admin & Yuli Suryanti (2021) found that Social Studies instruction is still primarily lecture-based, resulting in one-way communication. As a result, students often remain passive, simply absorbing information from the teacher. This can lead to feelings of fatigue, boredom, and a lack of interest in Social Studies. This passive learning environment contributes to inadequate mastery of Social Studies concepts, which does not meet educational expectations (Vani, Ulfa, & Kuswandi, 2023).

Based on the gaps outlined above, it is essential to enhance the learning process aimed at improving Interpersonal Intelligence by employing innovative learning models. One such model is the Discovery Learning Model, which encourages students to actively construct their knowledge through concept exploration—thus fostering robust Interpersonal Intelligence and improving retention (Cahyana, Afrizal, & Aisyah, 2024; Rahmawati, Indrastoeti Siti Poerwanti, & Chumdari, 2024; Ramadani & Marhaeni, 2024).

The Discovery Learning Model focuses on students discovering new knowledge through active learning and experiential activities, such as experiments (Cholily, Amalia, & PR, 2024; Mongkol, Kumesan, & Maukar, 2024; Sulistian, Izzati, & Dwinata, 2024). By engaging in experiments, students take on an active role in exploring and solving problems, leading to better generalization of knowledge. The concepts they learn become more meaningful and easier to retain since they are grounded in hands-on experiences. In this model, teachers act as facilitators, guiding and supporting students in discovering information through observation and experimentation. Therefore, teachers must be creative in designing learning environments that promote active student participation, ultimately enhancing their knowledge competencies (Bariyah & Fitriana, 2024; Mabhoza & Olawale, 2024; Supriyatmi, 2024).

Research supports the effectiveness of Discovery Learning. Studies conducted by Komang et al. (2021) and Ruhana et al. (2023) indicate that students taught using the Discovery Learning Model demonstrate higher levels of Interpersonal Intelligence compared to those instructed through direct methods. The N-Gain Score analysis reveals that the average Interpersonal Intelligence score of students educated via Discovery Learning was 0.4747, whereas those receiving direct instruction scored 0.3747.

However, despite the demonstrated effectiveness of these innovative learning models, teachers face challenges in their implementation, resulting in limited adoption of the recommended models from the 2013 Curriculum. Research by Putri & Jumadi (2017) indicates that teachers' ability to implement appropriate learning models according to the 2013 Curriculum remains suboptimal, with a competency rate of only 42.05%.

Learning styles are a significant factor influencing the success of the educational process, as noted by Fathoni et al. (2022) and Sufianti (2022). This assertion is supported by studies from Alhafiz (2022) and Widodo et al. (2020), which state that understanding students' characteristics, including their learning styles, can enhance instructional quality across subjects. Therefore, teachers must consider differences in student characteristics when selecting teaching methods, techniques, and instructional materials to accommodate diverse learning styles. Recognizing these differences is essential for integrating learning styles into instructional planning and ultimately determining the effectiveness of the learning process.

According to Mira et al. (2024), Ramananda et al. (2024), and Riku (2024), no single learning model is superior for all content types or diverse student characteristics. Thus, it is crucial to examine the implementation of the Discovery Learning Model while also accounting for students' learning styles to enhance Interpersonal Intelligence in Social Studies. The interaction between the Discovery Learning Model and varying learning styles is expected to influence students' Interpersonal Intelligence. Although numerous studies have investigated Discovery Learning, there is a lack of comprehensive research examining the effects of both Discovery Learning and Learning Styles on students' Interpersonal Intelligence, particularly regarding topics such as fluid pressure, vibrations, waves, and sound. Consequently, the author intends to conduct research titled "The Effect of the Discovery Learning Model and Learning Style on Students' Interpersonal Intelligence in Social Studies." This study aims to describe and explain the differences in Interpersonal Intelligence between students who learn using the Discovery Learning model and those taught through lectures, as well as the differences in Interpersonal Intelligence between students with convergent learning styles and those with divergent learning styles. Additionally, the study will explore the interplay between learning models and learning styles on students' Interpersonal Intelligence.

## **METHODS**

This research is classified as a quantitative quasi-experimental study, specifically utilizing a nonequivalent control group design. The hypothesis is tested through the collection, description, and analysis of numerical data. The study is considered experimental because it applies a treatment to the experimental group while maintaining control over other variables. According to Sugiyono (2017), experimental research involves validating or testing the effects of one or more variables on other variables.

This experimental research aims to investigate the influence of learning strategies based on students' visual, auditory, and kinesthetic learning styles on their interpersonal intelligence in Social Studies. The study will involve comparing two groups: one experimental group that receives instruction through the Discovery Learning Model and a comparison group that is taught using the lecture method. Both groups will be further divided based on their respective learning styles—visual, auditory, and kinesthetic.

The design of this study is represented by a matrix table with four cells, referred to as Matrix A for learning strategies and Matrix B for learning styles. In Matrix A, (A1) represents the Discovery Learning Model, while (A2) represents lecture-based learning. In Matrix B, (B1) corresponds to auditory learning styles, (B2) to visual learning styles, and (B3) to kinesthetic learning styles. Students are categorized into different learning style levels based on their scores: those who score above the median are classified at a specific learning style level, while those who score the same as or below the median are grouped accordingly. Table 1 presented factorial design 2x3.

**Table 1. Factorial design 2x3**

Class	Learning Style		
	Auditory (B1)	Visual (B2)	Kinesthetic (B3)
Discovery Learning (A1)	Y <sub>11</sub>	Y <sub>12</sub>	Y <sub>13</sub>
Lecturing Method (A2)	Y <sub>21</sub>	Y <sub>22</sub>	Y <sub>23</sub>

The research is being conducted at SMP Negeri 19 Surabaya. The population for the study is divided into two groups: the general population and the target population. The general population consists of 10 classes of 7th-grade students, while the target population includes 4 specific classes of 7th-grade students.

Data collection techniques are methods used to gather information. In this study, two types of data collection techniques are employed: testing techniques and questionnaire techniques. Tests are utilized to assess Social Studies Interpersonal Intelligence, while questionnaires are used to collect data on Visual, Auditory, and Kinesthetic Learning Styles. Each data collection technique requires instruments that are carefully designed based on the research variables.

To evaluate the data collected from field research on the Influence of the Discovery Learning Model and Different Learning Styles on Interpersonal Intelligence, an analysis was performed using the SPSS 27.0 for Windows Evaluation Version. This included conducting a Normality test and various statistical analyses. The T-test is a commonly used parametric statistical test that assesses the significance and relevance of one or two sample groups. For comparing two groups of data, the T-test is divided into two types: the Independent Sample T Test and the Paired Sample T Test. The Independent Sample T Test is appropriate for two groups of unrelated or dissimilar data, while the Paired Sample T Test is used for two groups that are related. Another useful statistical test is the ANOVA (Analysis of Variance), which is similar to the T-test but can assess differences among two or more data groups. There are two types of ANOVA: One-Way ANOVA and Two-Way ANOVA. One-way ANOVA tests the hypothesis for a single data group with one variable or factor, whereas Two-Way ANOVA tests hypotheses that involve two different factors. In this analysis, the researcher utilized the Independent Sample T-Test to test the first two hypotheses, and the Two-Way ANOVA was employed to evaluate the third hypothesis.

**RESULT**

Before conducting the two-way Analysis of Variance test to determine the interaction between the Discovery Learning Model and the lecture method with students who have different learning styles, a prerequisite test for normality was conducted first namely the Normality test.

There are several ways to assess data normality: (1) by examining the Skewness/Kurtosis ratio, (2) by using graphs, and (3) by employing the Kolmogorov-Smirnov test. In this case, we tested data normality using the Kolmogorov-Smirnov test, which yielded a K-S value of 0.286 with a significance probability of 0.000. Since this value is less than  $\alpha = 0.05$ , we reject the null hypothesis, indicating that the data for Interpersonal Intelligence is not normally distributed.

In this study, hypothesis testing utilized the 2-way ANOVA test, with the results presented in Table 3 and the descriptive statistics analysis result of the two classes presented in table 2. All the table will be describe based on finding each variable. These findings can contribute to the characteristics of learners and their interpersonal intelligence.

**Table 2. Descriptive Interpersonal Intelligence IPS**

Class	Learning Style	Mean	STD	N
Discovery Learning Model	Visual	66.05	4.134	22
	Audio	69.09	5.117	22
	Kinesthetic	74.80	6.606	20
	Total	69.83	6.373	64
Lecturing Method	Visual	62.13	1.857	16
	Audio	62.52	1.784	27
	Kinesthetic	62.71	1.901	21
	Total	62.48	1.826	64
Total	Visual	64.39	3.866	38
	Audio	65.47	4.908	49
	Kinesthetic	68.61	7.742	41
	Total	66.16	5.949	128

According to Table 2, both the Discovery Learning Model and the lecture method can enhance students' Interpersonal Intelligence. However, the lecture method accommodates students with various learning styles—auditory, visual, and kinesthetic. In terms of academic performance, students in classes utilizing the Discovery Learning Model achieved better grades. Specifically, among these students, there were 22 visual learners, 22 auditory learners, and 20 kinesthetic learners who excelled. In the lecture method, the grades obtained by students specifically were, 16 students with a Visual learning style, 27 students with an Auditory learning style, and 21 students with a Kinesthetic learning style. However, in general, the comparison of students who have a dominant learning style in the Discovery Learning Model is a visual and audio learning style while the lecture method is an audio learning style.

The descriptive calculations indicate that students in both the Discovery Learning Model and lecture method classes exhibit diverse learning styles, including auditory, visual, and kinesthetic. This suggests that students possess the ability to focus on the questions being discussed, analyze arguments, ask and answer questions related to explanations or challenges, and evaluate the credibility of various sources.

Based on the results presented in Table 3, it is evident that there is a difference in student learning outcomes in science subjects between those taught using the Discovery Learning Model and those taught using the lecture method. This difference spans across various learning styles, including auditory, visual, and kinesthetic. However, to determine whether this influence is statistically significant, further evidence from statistical calculations is required.

After conducting prerequisite tests, a two-way ANOVA was performed to examine the interaction between the learning methods and the student's learning styles. The results of the two-way ANOVA test are shown in represented table 3.

Based on Table 3, it can be explained that: the application of the Discovery Learning Model and the lecture method with a significance value smaller than  $\alpha < 0.05$ , namely 0.001, so it can be explained that there is a difference in the Interpersonal Intelligence of students taught using the Discovery Learning Model and the lecture method, the Audio, Visual and Kinesthetic Learning Styles of students with a significance value smaller than  $\alpha < 0.05$ , namely 0.001, meaning that there is a difference in the Interpersonal Intelligence of Class students, and the Interaction of the Discovery Learning Model and the lecture method with a significance value smaller than  $\alpha < 0.05$ ,

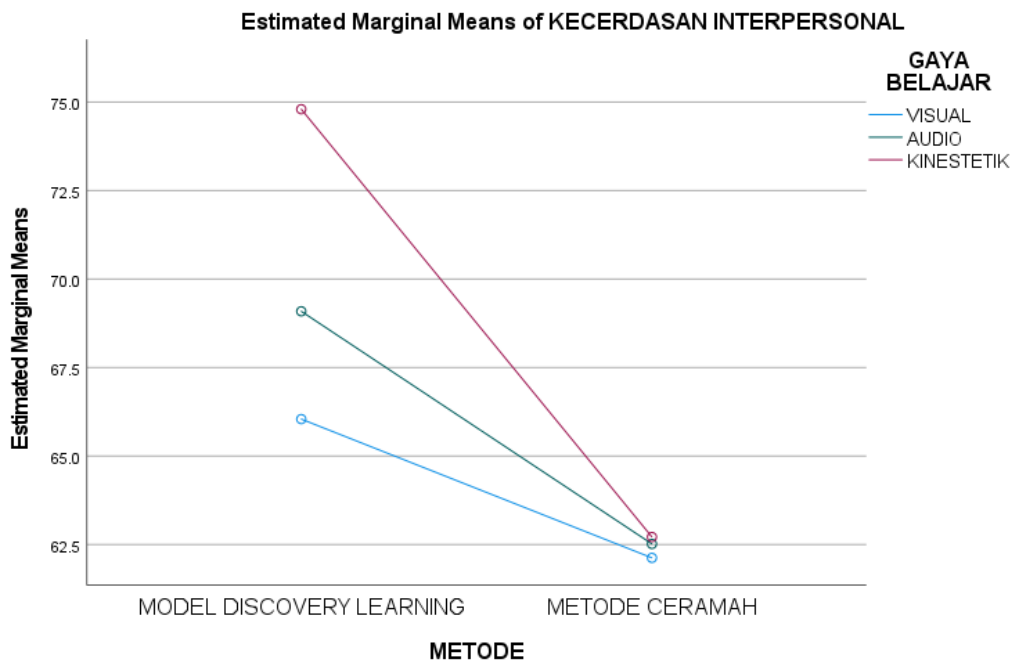
namely 0.001, so there is an interaction of the Discovery Learning Model and the lecture method and the Audio, Visual and Kinesthetic Learning Styles on the Interpersonal Intelligence of Class students.

**Tabel 3. Results of the 2-Way ANOVA Test Analysis**

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	2550.126 <sup>a</sup>	5	510.025	31.995	<,001
Intercept	547940.776	1	547940.776	34373.983	<,001
Method	1769.708	1	1769.708	111.019	<,001
Learning_Style	440.808	2	220.404	13.827	<,001
Method * Learning_Style	344.329	2	172.164	10.800	<,001
Error	1944.749	122	15.941		
Total	564706.000	128			
Corrected Total	4494.875	127			

Based on the calculation results above, it can be explained that the hypothesis proposed by Ho is accepted or H1 is rejected. This means that there is a difference in Interpersonal Intelligence and test results and significant interactions between the learning outcomes of students in classes using the Discovery Learning Model and classes using the lecture method and students who have Audio, Visual, and Kinesthetic Learning Styles in the subject of social studies students.

The third hypothesis can be accepted, namely, There is an interaction between Learning Style and Discovery Learning Model on Interpersonal Intelligence. The interaction can also be shown in Figure 1. Many interpretations can be taken from that figure, but in this article focus on the variable.



**Figure 1. Interaction between Discovery Learning Model and Learning Styles on Interpersonal Intelligence**

Figure 1 shows that there is an interaction between the Learning Style and Discovery Learning Model on Interpersonal Intelligence. Based on the results of this study, it can be concluded that there is an interaction between Learning Style and the Discovery Learning Model on Interpersonal Intelligence. This interaction occurs because learning through lecture methods in class with students whose learning styles are visual, auditory and kinesthetic, their interpersonal intelligence is almost the same and increases significantly differently for each learning style. The kinesthetic learning style increases significantly more superior than the others. While the visual and audio learning styles tend to be stable. Interpersonal intelligence ranking is reviewed from the students' learning style in the lecture method starting from kinesthetic, auditory and visual, as well as the discovery learning method.

## DISCUSSION

The Discovery Learning model significantly empowers students' Interpersonal Intelligence. The learning model affects Interpersonal Intelligence, in line with the findings (Nurfadillah, Cahyana, and Dian Pramana Putra 2022; Puspitarini 2023; Qodriyani and Heleni 2023) that there is an effect of the learning model on Interpersonal Intelligence.

Based on the results of data analysis in the form of data descriptions for each variable and hypothesis testing, several things need to be interpreted regarding the effect of the discovery learning model and lecture method on the Interpersonal Intelligence of Class students. In this study, the researcher used four classes as samples, namely class VII AB as the experimental class and class VII CD as the control class. The researcher used a questionnaire and post-test which were distributed to the control class (not using the discovery learning model) and the experimental class (which applied the discovery learning model).

Where students are given a learning style questionnaire before being given different treatments between the experimental class and the control class, the purpose is to see the level of students' learning styles without any treatment, whether in addition to the student learning model, it also affects Interpersonal Intelligence in both the experimental and control classes. Researchers use the t-test. Before using the hypothesis test, the data must meet two requirements, the data is normally distributed and homogeneous with the criteria of  $Asymp.Sig < 0.05$ . Based on the results of the Normality test with SPSS 27.0 for Windows.

The results of observations in the class that learn using the Discovery Learning Model, students can complete the steps based on the procedures given in the Discovery Learning Model. Students can complete the learning process independently so that students do not ask the teacher a lot. Students are also accustomed to actively conducting experiments first before asking the teacher. Students are helped by the Discovery Learning Model provided, so that students can work independently. The Discovery Learning Model process also occurs in discussion groups in one group involving all students in one group.

The results of observations in the class that learn using the lecture method, students are unable to complete the learning steps independently. Students often ask the teacher what they should do. Students are not accustomed to reading the experimental procedure, so when students receive a worksheet, students do not read the procedure but immediately ask the teacher what they should do. In addition, interactions between peers also do not go well.

Learning with the Discovery Learning Model provides an opportunity for students to discuss with each other. The formation of student groups can help interaction between friends in one group. Students who have high Interpersonal Intelligence can help students who have low Interpersonal Intelligence. This

interaction can facilitate students to build Interpersonal Intelligence together. So that higher student Interpersonal Intelligence is obtained.

This study is strengthened by the findings of research conducted by (Jona, Permatasari, and Eveline 2024) entitled *Use of Student Worksheets Based on the Guided Discovery Learning Learning Model on Critical Thinking Skills*, with the results of the study obtained  $T_{count}$  greater than  $T_{table}$ , namely  $5.201 > 2.01410$  and  $Sig. (2-Tailed) = 0.000 < 0.05$ , it is concluded that there is a significant influence of the use of student worksheets based on the Guided Discovery Learning learning model on critical thinking skills. Thus, student worksheets based on the Guided Discovery Learning learning model can foster students' critical thinking skills.

Different learning styles play an important role in learning because each student must have their learning style. With different learning styles, students can learn well and can receive lessons from teachers with pleasure. Learning style is a way or form of students in learning. Each student learns in their way. Children who are forced to learn with different learning styles will encounter obstacles and difficulties in learning. Therefore, teachers must be able to recognize the learning style of each student so that learning becomes easy to accept and enjoyable for students.

The results of this study agree with the research conducted by (Faila Sova<sup>1</sup>, Caswita<sup>2</sup> 2022) with the title of the study, namely *The Influence of the Project-Based Learning (PjBL) Learning Model and Learning Styles on Critical Thinking Skills of Vocational High School Students*, The results of the study stated that: there is an influence of Project-Based Learning (PJBL) which produces students' mathematical critical thinking skills better than conventional learning, There is a difference in the influence between auditory learning styles, visual and kinesthetic on critical thinking. Students with auditory and visual learning styles are better at critical mathematical thinking, and there is an interaction between learning models and learning styles on students' critical mathematical thinking skills.

The results of this study appear to be in line with what has been studied by (Gunawan and Cholid 2023), with the title of the study, namely *The Inquiry Method Learning Method and Learning Style on English Learning Outcomes*, The results of the study state that: Application of the Inquiry Method and Convention Method with a significance value smaller than  $\alpha < 0.05$ , namely 0.000, so it can be explained that there is a difference in the English Learning Outcomes of class VII students of SMPN 48 Surabaya who are taught using the Inquiry Method and Direct Instruction, Audio, Visual and Kinesthetic Learning Styles of students with a significance value smaller than  $\alpha < 0.05$ , namely 0.000, meaning that there is a difference in the English Learning Outcomes of class VII students of SMPN 48 Surabaya, and the inquiry interaction method and the convention method with a significant value smaller than  $\alpha < 0.05$ , namely 0.001, so there is an interaction between the Inquiry Method and the Convention Method and the Audio, Visual and Kinesthetic Learning Style on the English Learning Outcomes of class VII students of SMPN 48 Surabaya. Based on the results of the study, it was concluded that using the Inquiry Method and Learning Style can improve English Learning Outcomes. This study implies that the Inquiry Method can be used as one way to improve English Learning Outcomes.

Based on the results of the study, it can be explained that there is an increase in Interpersonal Intelligence in each application of learning, either by using the Discovery Learning Model or by using the lecture method. Students who are taught using the Discovery Learning Model have better Interpersonal Intelligence than students who are taught using the lecture method. Each learning that is applied encourages students to have a Learning Style where students who have a Learning Style implement or manifest through actions of planning, observing, and analyzing learning activities that have been gone through by students. In this study, Learning Styles are mostly owned by students who are taught using the Discovery Learning Model. However, in general, the two learning methods applied have very good Learning Styles in the Discovery Learning Model and the lecture method. Where in its implementation it

can increase students' Interpersonal Intelligence when compared to initial abilities. The comparison of learning outcomes of the Discovery Learning Model in Social Studies subjects has better Interpersonal Intelligence compared to the lecture method. This is inseparable from the implementation of the Discovery Learning Model that has been given which has been carried out well in the school where the research was conducted where students can implement the Discovery Learning Model and it seems to be following the needs and desires of students' learning.

In addition, the Discovery Learning Model has fulfilled the components related to the need to improve student learning outcomes alone (Abdurrokhim, Kuswandi, and Ulfa 2022). Where in this Discovery Learning Model learning, it is carried out through scientific stages carried out by students that it provides challenges for students when carrying out the process of observing, analyzing, and proving so that a student must be able to develop their Learning Style (Murtadho, Praherdhiono, and Wedi 2022). This means that the Learning Style in students will help to express the problems or material being discussed. This Learning Style will encourage students to improve their ability to ask questions, analyze observation results, Learning Style opinions, and experimental results so that it will provide students with experience in learning (Febriana et al. 2020; Kurniasih and Azzahraa 2020; Silitonga and Magdalena 2020). Understandings and concepts of the material will be mastered well by students.

The results of this study appear to be in line with what has been studied by (Fatimah and Purba 2022), with the title of the study namely Interaction between Guided Inquiry and Discovery Learning Models with Students' learning styles on Mathematical Critical Thinking Skills, The results of the study state that: There is an interaction between the Inquiry and Discovery learning models with learning styles on the mathematical critical thinking skills of students in the second semester of the 2021-2022 Academic Year of the Science Education Study Program, STKIP Al Maksum. The mathematical critical thinking skills of students who have a kinesthetic learning style who are taught with the Inquiry learning model are higher than the mathematical critical thinking skills of students who have a visual learning style with the same learning model. Likewise, when compared to the mathematical critical thinking skills of students who have a visual learning style who are taught with the Discovery learning model, it is still higher when compared to the mathematical critical thinking skills of students who have a kinesthetic learning style with the same learning model.

## **CONCLUSION**

Based on the results of the hypothesis testing, it can be concluded as follows: There is a difference in the influence of the use of the Discovery Learning Model and the lecture method on Interpersonal Intelligence in the subject of Social Studies Class, namely students who use the Discovery Learning Model have better Interpersonal Intelligence than students who use the lecture method, There is a difference in the influence of different Learning Styles on Interpersonal Intelligence in the subject of Social Studies Class, students with a tendency to learn styles that use the Discovery Learning Model are visual and audio learning styles, while students with a tendency to learn styles that use the lecture method are audio learning styles, and There is an interaction effect between the Discovery Learning Model and different Learning Styles on Interpersonal Intelligence in the subject of Social Studies Class, in this case the different Learning Styles as moderator variables strongly support a strong relationship between the independent variables and their dependent variables. The effect of using the Discovery Learning Model with different Learning Styles can improve students' Interpersonal Intelligence.

**DAFTAR RUJUKAN**

- Abdurrokhim, Abdurrokhim, Dedi Kuswandi, And Saida Ulfa. (2022). “Pengembangan Pembelajaran Berbasis Web Dengan Pendekatan Guided Discovery Berbantuan Hypermedia Untuk Siswa Smp.” *JKTP: Jurnal Kajian Teknologi Pendidikan* 5(2).
- Admin, And Yuli Suryanti. (2021). “Pengaruh Penkes Menggunakan Metode Ceramah Dan Leaflet Terhadap Tingkat Kecemasan Primigravida.” *Jurnal Kesehatan Dan Pembangunan* 11(22).
- Aisyah, Nabila Aqidatul Et Al. (2024). “Penerapan Model Discovery Learning Berbasis Etnomatematika Berbantuan Geogebra Terhadap Kemampuan Berpikir Kreatif Matematis.” *Mathema Journal* 6(1).
- Ak, Muhammad Sardin. (2020). “Efektivitas Diklat Pengendalian Opt Tembakau Melalui Metode Ceramah Dan Praktek Langsung Di Lapangan.” *JISIP (Jurnal Ilmu Sosial Dan Pendidikan)* 4(4).
- Alhadi, Hafizh, And Wakhinuddin Wakhinuddin. (2024). “Pengembangan Modul Berbasis Discovery Learning Pada Mata Pelajaran Pemeliharaan Mesin Dan Kendaraan Ringan Kelas Xi Smk Judul Jurnal Dalam Bahasa Indonesia.” *Pakar Pendidikan* 22(1).
- Alhafiz, Nurzaki. (2022). “Analisis Profil Gaya Belajar Siswa Untuk Pembelajaran Berdiferensiasi Di SMP Negeri 23 Pekanbaru.” *Jurnal Cakrawala Ilmiah* 1(8).
- Ali Akbar, Mohammad. (2023). “Pengaruh Kecerdasan Interpersonal Dan Tanggung Jawab Terhadap Kepercayaan Diri Siswa Kelas V Sd Negeri Se-Kecamatan Maesan Kabupaten Bondowoso.” *Jurnal Gentala Pendidikan Dasar* 8(2).
- Bahtiar, And Muhammad. (2024). “Development Of A Discovery Learning Model Physics E-Book Containing Al-Qur’an Values To Improve Students’ Problem-Solving Skills And Spiritual Attitudes.” *Jurnal Penelitian Pendidikan IPA* 10(2).
- Bariyah, Husnul, And Yolanda Fitriana. (2024). 6 Mathema Journal E-Issn Pengaruh Model Discovery Learning Terhadap Kemampuan Pemahaman Konsep Matematis Siswa Kelas IX SMP.
- Baso Intang Sappaile Et Al. (2024). “Pengaruh Model Discovery Learning Berbasis Iot Terhadap Kemampuan Berpikir Kritis Siswa: Meta -Analysis.” *Puan Indonesia* 5(2).
- Cahyana, Ucu, Afrizal, And Siti Aisyah. (2024). “Development Of Mobile Learning Integrated Learning Management System (LMS) Based On Discovery Learning And Its Influence On Students’ Critical Thinking Skills.” In *AIP Conference Proceedings*,.
- Cholily, Yus Mochamad, Selvi Amalia, And Alfiani Athma Pr. (2024). “Student’s Mathematical Communication Ability Given Self Concept In Learning Mathematics Through Discovery Learning.” *Prima: Jurnal Pendidikan Matematika* 8(1).
- Faila Sova, Caswita, Nurhanurawati. (2022). “Pengaruh Model Pembelajaran Project-Based Learning (Pjbl) Dan Gaya Belajar Terhadap Kemampuan Berfikir Kritis Siswa Smk.” *10(2): 431–41*.
- Fathoni, Muh. Fais, Dassucik Dassucik, And Ahmad Hafas Rasyidi. (2022). “Pengaruh Gaya Belajar Siswa Terhadap Hasil Belajar Siswa Mata Pelajaran Ips Semester Genap Di Mts Fathus Salafi Mangaran Kabupaten Situbondo.” *Jurnal Ika Pgsd (Ikatan Alumni Pgsd Unars)* 10(2).
- Fatimah, Ade Evi, And Azrina Purba. (2022). “Interaksi Antara Model Pembelajaran Inkuiri Terbimbing Dan Discovery Dengan Gaya Belajar Mahasiswa Terhadap Kemampuan Berpikir Kritis Matematis.” *Journal Of Didactic Mathematics* 3(1).
- Febriana, Vica Dwi Et Al. (2020). Pengaruh Gaya Belajar Siswa Terhadap Hasil Belajar Matematika Dalam Materi Himpunan. *Jurnal Pendidikan Dan Dakwah*

- Gunawan, Wawan, And Abd Cholid. (2023). "Metode Pembelajaran Metode Inquiry Dan Gaya Belajar Terhadap Hasil Belajar Bahasa Inggris." 05(04): 10832–43.
- Hanifah, Zahra, Sa'odah Sa'odah, And Sunaryo Sunaryo. (2023). "Hubungan Verbal Bullying Dengan Kecerdasan Interpersonal Siswa Kelas V SDS Asdu Kabupaten Tangerang." *Indonesian Journal Of Elementary Education (Ijoe)* 5(1).
- Jona, Pebri Hendrik, Rindah Permatasari, And Erlin Eveline. (2024). "Penggunaan Lembar Kerja Siswa Berbasis Model Pembelajaran Guided Discovery Learning Terhadap Kemampuan Berpikir Kritis." *Quantum: Jurnal Pembelajaran Ipa Dan Aplikasinya* 3(2): 56–60. <https://jurnalstkipmelawi.ac.id/index.php/qjipi/article/view/1875>.
- Komang, Ni Et Al. (2021). "Efektivitas Discovery Learning Model Dengan Media Powerpoint Meningkatkan Hasil Belajar IPA SD". *Journal Of Education Action Research* 5(3).
- Kurniasih, Indri, And Dinni Alifa Azzahraa. (2020). "Hubungan Kesiapan Dan Gaya Belajar Dengan Tingkat Kelulusan Ujian Multiple Choice Question (MCQ)." *Insisiva Dental Journal : Majalah Kedokteran Gigi Insisiva* 9(2).
- Laili, Alfina, Nyoman Ayu Putri Lestari, And Made Padmarani Sudewiputri. (2024). "Pengaruh Model Pembelajaran Discovery Learning Terhadap Hasil Belajar IPA Siswa SD." *Jurnal Ilmiah Pendidikan Citra Bakti* 11(1).
- Mabhoza, Zizopho, And Babawande Emmanuel Olawale. (2024). "Chronicling The Experiences Of Mathematics Learners And Teachers On The Usage Of Guided Discovery Learning (Gdl) In Enhancing Learners' Academic Performance." *Research In Social Sciences And Technology* 9(1).
- Mira, Astri Silviana Jiwanti Et Al. (2024). "Peningkatan Hasil Belajar Matematika Di Kelas Xi Sekolah Menengah Kejuruan Menggunakan Model Discovery Learning." *Prima Magistra: Jurnal Ilmiah Kependidikan* 5(1).
- Mongkol, Sagita Healthy, Selfie L. Kumesan, And Marvel G. Maukar. (2024). "Perbandingan Model Pembelajaran Problem Based Learning Dengan Model Discovery Learning Terhadap Hasil Belajar Siswa Pada Materi Segitiga Kelas VII SMP Negeri 3 Poigar." *Jurnal Sains Riset* 14(1).
- Murtadho, Muhamad Hisam, Henry Praherdhiono, And Agus Wedi. (2022). "Pengembangan Modul Adaptif Untuk Melayani Keanekaragaman Gaya Belajar Berbasis Universal Design For Learning." *JKTP: Jurnal Kajian Teknologi Pendidikan* 05(03).
- Nur'aini, Nur'aini, And Hamzah Hamzah. (2023). "Manajemen Pembelajaran Aqidah Akhlak Untuk Menanamkan Kecerdasan Interpersonal Peserta Didik." *Edukatif: Jurnal Ilmu Pendidikan* 5(1).
- Nurfadillah, Nurfadillah, Windy Cahyana, And Dian Pramana Putra. (2022). "Penerapan Model Discovery Learning Berbantuan Media Flipbooks Dalam Pembelajaran Fisika Untuk Melatih Keterampilan Metakognisi Siswa Sman 10 Gowa." *Jurnal Pendidikan Mipa* 12(1).
- Nurrahmayani, And Yusni. (2024). "Penerapan Model Pembelajaran Discovery Learning Dalam Meningkatkan Hasil Belajar Siswa." *Journal On Education* 6(2).
- Puspitarini, Dyah. (2023). "Peningkatan Keaktifan Dan Hasil Belajar Ppkn Melalui Discovery Learning Berbantuan Aplikasi Wordwall Games." *Ideguru: Jurnal Karya Ilmiah Guru* 8(3).
- Qodriyani, Ukhti, And Susda Heleni. (2023). "E-Lks Of Polyhedron Material Based On Guided Discovery Approach To Facilitate Mathematical Problem-Solving Ability Of Junior High School." *Jurnal Prinsip Pendidikan Matematika* 5(2).
- Rahmawati, Suci, Jenny Indrastoeti Siti Poerwanti, And Chumdari Chumdari. (2024). "Penerapan Model Discovery Learning Untuk Meningkatkan Keterampilan Membaca Pemahaman Pada Peserta Didik Kelas Iv Sekolah Dasar." *Didaktika Dwija Indria* 12(1).

- Ramadani, Desindra Rahmatia, And Nafida Hetty Marhaeni. (2024). “Respons Siswa Terhadap E-Lkpd Berbasis Discovery Learning Materi Transformasi Geometri.” *Jurnal Pendidikan, Sains Dan Teknologi* 3(1).
- Ramananda, Putri Cantika, Sujinal Arifin, And Liana Liana. (2024). “Kemampuan Pemahaman Konsep Siswa Dengan Pembelajaran Guided Discovery Learning.” *Sjme (Supremum Journal Of Mathematics Education)* 8(1).
- Riku, Moses. (2024). “Model Discovery Learning Berbantuan Phet Simulation Untuk Meningkatkan Hasil Belajar Siswa Pada Materi Bentuk Molekul.” *Jurnal Ilmiah IPA Dan Matematika (Jiim)* 1(4).
- Ruhana, Baiq Ayu, Lalu Ahmad Didik Meiliyadi, And Muhammad Zaini. (2023). “Pengaruh Model Discovery Learning Terhadap Keterampilan Berpikir Kritis Siswa Pada Materi Suhu Dan Kalor.” *Relativitas: Jurnal Riset Inovasi Pembelajaran Fisika* 6(1).
- Saota, Helena. (2024). “Penerapan Model Pembelajaran Discovery Learning Berbasis Powerpoint Pada Mata Pelajaran Ekonomi Untuk Meningkatkan Minat Belajar Siswa Di Smp Negeri 3 Satu Atap Aramo.” *Curve Elasticity: Jurnal Pendidikan Ekonomi* 5(1).
- Silitonga, Evi Agustina, And Ina Magdalena. (2020). “Gaya Belajar Siswa Di Sekolah Dasar Negeri Cikokol 2 Tangerang.” *Jurnal Pendidikan Dan Ilmu Sosial* 2(1).
- Sufianti, Alif Via. (2022). “Hubungan Gaya Belajar Dengan Multiple Intellegences Terhadap Prestasi Peserta Didik.” *Irje : Jurnal Ilmu Pendidikan* 2(1).
- Sugiyono. (2017). *Metode Penelitian Kuantitatif Kualitatif Dan R&D*. 25th Ed. Bandung: Alfabeta.
- Sulistian, Lulu, Nur Izzati, And Alona Dwinata. (2024). “Pengaruh Pembelajaran Terdiferensiasi Menggunakan Model Discovery Learning Untuk Meningkatkan Kemampuan Berpikir Kreatif Matematis Siswa Pada Materi Perbandingan.” *Jurnal Equation: Teori Dan Penelitian Pendidikan Matematika* 6(2).
- Supriyatmi, Rita. (2024). “Penerapan Model Discovery Learning Untuk Meningkatkan Hasil Belajar Ipa Materi Klasifikasi Makhluk Hidup Pada Peserta Didik Kelas VII A Smp Negeri 2 Mlati.” *Science : Jurnal Inovasi Pendidikan Matematika Dan IPA* 3(4).
- Vani, Karunia Tiara, Saida Ulfa, And Dedi Kuswandi. (2023). “Desain Pembelajaran Proyek Kolaborasi Menggunakan Model Seci Untuk Bidang Studi IPS.” *JKTP: Jurnal Kajian Teknologi Pendidikan* 6(1).
- Widodo, Arif, Aisa Nikmah Rahmatih, Setiani Novitasari, And Nursaptini Nursaptini. (2020). “Analisis Gaya Belajar Siswa Adhd (Attention Deficit Hyperactivity Disorder) Di Madrasah Inklusi Lombok Barat.” *Jurnal Bidang Pendidikan Dasar* 4(2).