



Group Investigation Learning Model Influence on Prospective Elementary School Teachers' Democratic Attitudes

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ABSTRAK

Pada umumnya, masih lemahnya sikap demokratis siswa karena tidak memahami muatan nilai-nilai demokrasi. Oleh karena itu, diperlukan suatu model pembelajaran yang berhasil untuk memunculkan sikap demokratis siswa. Tujuan penelitian ini adalah untuk menganalisis pengaruh model pembelajaran investigasi kelompok pada sikap demokratis mahasiswa PGSD. Penelitian ini menggunakan pendekatan kuantitatif, dengan eksperimen semu dalam penelitian ini. Dengan menggunakan teknik random cluster sampling untuk pengambilan sampel, populasinya terdiri dari seluruh mahasiswa PGSD Semester 2 berjumlah 71 mahasiswa dengan kelas A2 dan A7. Angket, observasi, dan dokumentasi digunakan dalam pengumpulan data. Analisis data berupa analisis deskriptif dan analisis inferensial dengan menggunakan uji normalitas, uji homogenitas dan uji hipotesis dengan uji independent simple t-test. Diperoleh hasil analisis data pada uji t pada kelas eksperimen diperoleh nilai Signifikan (2 tailed) adalah 0,000 atau lebih kecil dari 0,05 ($0,000 < 0,05$). H_0 ditolak dan H_a diterima sehingga penerapan model pembelajaran investigasi kelompok berpengaruh secara signifikan terhadap sikap demokrasi mahasiswa.

ABSTRACT

Generally, the weakness in students' democratic attitudes stems from a lack of understanding of the principles of democracy. Therefore, there is a need for a successful learning model to instill democratic attitudes in students. The purpose of this study is to analyze the impact of the group investigative learning model on the democratic attitudes of Elementary School Education (PGSD) students. A quantitative approach and quasi-experimental design were employed in this study. Employing a random cluster sampling technique for sample selection, the population comprised a total of 71 second-semester elementary education students, divided into classes A2 and A7. Questionnaires, observations, and documentation were used for data collection. Data analysis involved descriptive analysis and inferential analysis, using tests for normality, homogeneity, and hypothesis testing through the independent simple t-test. The data analysis resulted in a significance value (2-tailed) of 0.000, which is less than 0.05 ($0.000 < 0.05$) in the t-test for the experimental class. Therefore, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_a) was accepted, indicating that the implementation of the group investigative learning model significantly influences students' democratic attitudes.

1. INTRODUCTION

One of the crucial factors in building the character of the Indonesian nation is education. Through education, it is believed that the state will be able to produce generations of outstanding citizens capable of enhancing the standard of living as a nation and as a state (Nida, 2019; Sin & Cahyani, 2022). The development of human resource capacity for the overall progress of the country is a primary objective of the state's education policy. Intelligent human resources can be cultivated through meaningful education, raising living standards, and enabling a country to compete on an international level (Abdal Rizky Munthe et al., 2023; Saputri et al., 2021). Education shapes an individual's personality, knowledge, and abilities. The nationally recognized goal of education is to advance a country's culture by nurturing skills, attitudes, and behaviors, emphasizing the improvement of meaningful life, thereby cultivating good individuals (Banjarnahor, 2021; Simaremare, 2022). The success of a country can be gauged by the character of its society and citizens, which represent the identity of that nation. Therefore, it is crucial to foster character

through education, whether in the family, community, or school environment (Angga et al., 2022; Retnasari & Hidayah, 2019). In both developed and developing countries, issues concerning character are universal problems experienced by society. This is due to the decline in individuals' character, disrupting the peace of others and causing harm to many sectors of society (Alia et al., 2020; Angga et al., 2022). The development of character education is a further challenge faced by 21st-century educators because the role of teachers extends beyond imparting knowledge to students. It involves nurturing students to be morally honest, disciplined, creative, curious, and individuals who maintain enthusiasm and respect for others (Afandi et al., 2019; Dewi et al., 2021).

One of the attitudes that students should have is the attitude of democracy. The values of democratic attitudes can make students become good members of society and beneficial to others. In education, democratic attitudes are important for students to be consciously aware of their responsibilities as responsible human beings. Furthermore, they should be able to actively contribute positively to society (Akar & Ulucinar, 2023; Cohen & Fung, 2023). On the other hand, the main purpose of instilling democratic attitudes is to create effective citizens who are aware, inclusive, uphold, and protect their freedoms and individual rights. Competencies, values, attitudes, and knowledge are components of democratic attitudes. The constructivist learning perspective emphasizes more on helping students develop their attitudes and values rather than memorizing an explanation (Akar & Ulucinar, 2023; Kusumawardani et al., 2021). The democratic attitudes referred to include the ability to uphold values such as respecting individual rights, honoring individuality, being fair, being responsible, promoting equality, being open, having open-mindedness, tolerance, cooperation, appreciation, guidance, kindness, and making it into behavior, self-preparedness, and decision-making. Primary schools actively educate children about democratic attitude values (Akar & Ulucinar, 2023; Strijbos & Engels, 2023). This is in line with the goals of Civics Education subjects, which aim to prepare students to understand and fulfill their rights and obligations in order to become knowledgeable, competent, and moral Indonesian citizens. This means that students' behavior patterns will be shaped to have a democratic mindset through democratic learning (Rahayu & Suarnadi, 2022; Rodiyana, 2019).

Generally, the weakness in students' democratic attitudes stems from a lack of understanding of the principles of democracy. Many students exhibit a lack of tolerance, unwillingness to collaborate, reluctance to voice their opinions during discussions, a deficiency in showing respect for one another, and a failure to provide opportunities for their peers to express their opinions (Rodiyana, 2019; Ujipriyati et al., 2019). Furthermore, the fact in the field shows that the implementation of the learning process tends to emphasize teacher-centered learning models. Students still tend to be directly involved in learning, they are still shy to express their opinions, reluctant to provide input during learning, and find it difficult to appreciate the opinions of others (Putri et al., 2022; Thooyibah et al., 2019). However, it is still observed that some teachers lack in developing various teaching models or media. Research findings support this, indicating that many teachers still apply a teacher-centered approach, leading to passive learning activities (Pramana & Suarjana, 2019; Putri et al., 2022; Widani et al., 2019). Several components of a teacher's potential in teaching are aimed at enhancing students' engagement and involvement in productive learning activities, fostering collaboration, encouraging assertiveness, critical thinking, and reflection (Hadjichambis et al., 2020). Therefore, efforts should be made to cultivate students' democratic attitudes by utilizing a group inquiry learning model.

With the assistance of the cooperative learning model of group investigation, many students are organized into diverse groups based on their skills. In comprehending the lesson, group members must cooperate and collaborate to fulfill their group tasks (Pertwi & Muna, 2021; Taek et al., 2022). There are six steps in the group investigative learning model: (1) Topic/Theme Selection: The teacher decides on a broader topic issue, and students choose specific subtopics within it. Student groups of six to seven members are then formed, (2) Cooperative Planning: Students create a plan for objectives, tasks, and learning procedures for their chosen topic, (3) Execution: Students carry out planned activities based on what was decided in the planning stage, (4) Analysis and Synthesis: After receiving material in the third stage, students analyze and synthesize it. They then plan how to summarize and present the knowledge in an engaging manner, (5) Presenting the Final Report: Several groups present engaging explanations in front of the class about their research findings or other activities, (6) valuation: Individual or group evaluations can be utilized for assessment purposes (Kosasih et al., 2019; Suhartono et al., 2019).

In the context of education in Indonesia, the Ministry of Education emphasizes the importance of democratic character as one of the traits expected to be possessed by students in facing global challenges (Kirani & Najicha, 2022; Mahardin et al., 2022). Democracy is considered a fundamental value influencing principles that guide human behavior. In this context, democracy has become the aspiration of every nation and state (Rahayu & Suarnadi, 2022; Suardi & Fachria, 2020). A democratic attitude involves thinking, behavior, and actions that respect rights and commitments, both towards oneself and others.

Democratic values encompass respecting diverse viewpoints, having an open mind, upholding human values, self-control, compassion, unity as a community, belief in the law, and fairness (Akar & Ulucinar, 2023; Zulfa & Haryanto, 2021). A democratic attitude is deemed important in education as it can benefit students in school and acclimate them to democratic behavior in everyday life. Wijaya suggests that democracy is a lifestyle that supports shared goals and needs for oneself and others (Akar & Ulucinar, 2023; Sukmawati & Nashir, 2021).

Democratic values include recognition of equality, respect for others, enthusiasm for collaboration, acceptance and respect for cultural diversity, awareness of others' struggles, and acting justly (Rodiñana, 2019; Said Doğru & Demirbaş, 2021). In line with previous research state the success of implementing the group investigation model as a learning approach heavily depends on the utilization of this model, not only in terms of knowledge but also in shaping students' dignified, inventive, and independent behavior (Sumardha et al., 2019). Other studies suggest that the group investigation model fosters the development of communication skills and effective procedural skills among students (Fadila et al., 2019; Pertiwi & Muna, 2021). Further research outcomes demonstrate that employing the group investigation learning model can enhance students' democratic attitudes while also improving their academic performance (Ujipriyati et al., 2019). Based on several prior studies, the group investigation learning model significantly influences the development of students' democratic attitudes. Therefore, this study aims to analyze the extent of the group investigation learning model's influence on shaping students' democratic attitudes. The novelty of this research provides a unique contribution in the field of education, especially in the context of learning for Elementary School Teacher Education (PGSD) students, by examining the influence of the Group Investigation learning model on democratic attitudes.

2. METHOD

This research employs a quantitative approach and a quasi-experimental design conducted at PGRI Yogyakarta University (Maciejewski, 2020). The entire second-semester Elementary Education (PGSD) students formed the population for this study, comprising seven classes. The sampling technique employed was random cluster sampling, selecting 38 students from class A2 and 33 students from class A7. The data collection methods used in this research were questionnaires, observations, and documentation. The research design adopted was a Post-test only control design. Questionnaires were distributed to both the control and experimental groups, containing 30 statements through a Google Form. Each statement represented an indicator of democratic attitudes, thus enabling the collection of data through the questionnaire distribution. The questionnaire used in this research must be valid. Therefore, the items used to measure democratic attitudes should be pilot tested for feasibility and analyzed. Questionnaire analysis includes validity and reliability testing stages. Subsequently, the data are analyzed through the prerequisite analysis, and hypothesis testing. Prerequisite analysis is conducted with tests for normality and homogeneity, while hypothesis testing uses independent sample t-test. The research instrument framework is presented in Table 1 and the score range of questionnaire is show in Table 2.

Table 1. The Instrument for Democratic Attitudes

Variables	Indicator	Statements		Amount
		Positive	Negative	
Democratic Attitudes	Engaging in a discussion or debate with friends	1, 2, 3	4, 5, 6	6
	Being able to provide advice or opinions to a friend	7, 8, 9	10,11,12	6
	Making group decisions, even if the choice is not in line with personal desires.	13,14,15	16,17,18	6
	Being able to make a dicsion through collective consultation in the classroom	19,20,21	22,23,24	6
	Conducting group discussion calmly and effectively	25,26,27	28,29,30	6
Amount				30

(Zulfa & Haryanto, 2021)

Table 2. The Score Range of the Questionnaire

Symbols	Explanations	Scores
SS	Very Agree	4
S	Agree	3
TS	Disagree	2
STS	Strongly Disagree	1

3. RESULT AND DISCUSSION

Result

The acquisition of data on democratic attitudes is based on the questionnaire distributed to students before (pre-test) and after (post-test) the treatment. The comparison of pre-test and post-test scores regarding democratic attitudes in the control and experimental classes is shown in [Table 3](#).

Table 3. Description of Data Students Democratic Attitudes in the Experimental and Control Classes

Description of Data	Ekperimental Class (GI)		Control Class (Conventional)	
	Pre-test	Post-test	Pre-test	Post-test
Mean	78.58	85.50	72.76	79.21
Std. Deviation	3.326	4.203	6.500	4.189
Maximum	85	92	83	85
Minimum	71	76	60	70
N	38	38	33	33

[Table 3](#) demonstrates that the average scores for students' democratic attitudes were higher when using the Group Investigation model compared to the conventional model. The implementation of the Group Investigation learning model emphasizes discussions, expressing opinions, and gathering information from various sources, thereby enhancing democratic attitudes among students. Average Democratic Attitudes is show in [Figure 1](#).

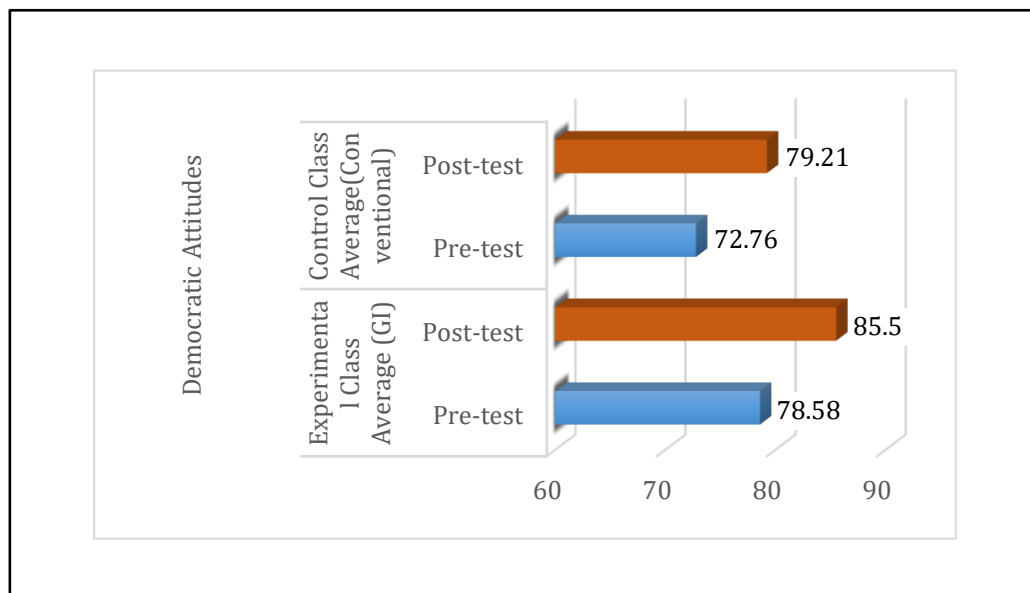


Figure 1. Average Democratic Attitudes

Based on the data description in [Figure 1](#), the average students' democratic attitudes can be observed from the bar chart above. There is a comparison of the average scores achieved for democratic attitudes in the experimental post-test class, which is 85.5, compared to 78.8 in the experimental pre-test, and the average democratic attitude scores achieved in the control post-test class, which is 79.21, compared to 72.76 in the control pre-test. Based on this, the group investigation learning model appears to influence students' democratic attitudes. As a preliminary test before conducting the homogeneity test and hypothesis testing, a normality test was performed to ensure whether the research data was normally distributed or not. The presence of normally distributed data is a prerequisite for conducting parametric analysis. In the normality test using Kolmogorov-Smirnov to assess the normality of this research data, the following hypothesis is proposed is show in [Table 4](#). Base on [Table 4](#), the data analysis findings reveal that the significance value is 0.000 or $0.000 < 0.05$. This indicates that there is a difference between the experimental class using the group investigation learning model and the control class not using this model. The comparison between the experimental class using the group investigation learning model and the control class using the conventional model, through data analysis, shows a significant difference. Therefore, the results of the Independent Sample T-Test suggest that the group investigation learning model has an influence on students' democratic attitudes.

Table 4. The Result of the Independent Sample t-test for Democratic Attitudes Scores

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of The Difference	
								Lowerr	Upper
Equal Variances assumed	0.006	0.940	6.297	69	0.000	6.288	0.998	4.296	8.280
Equal Variances Not assumed			6.299	67.673	0.000	6.288	0.998	4.296	8.280

Discussion

The results and data analysis align with the purpose and objectives of implementing the group investigation learning model, as evident from the students' enthusiasm for learning. Moreover, the use of the group investigation learning model is to observe student engagement, encouraging them to actively participate and contribute to the learning process. Cooperative learning is a paradigm in which students engage in planning the learning process, starting from determining subtopics to presenting a problem (Muttaqin, 2021; Widyaningsih & Puspasari, 2020). Consistent with previous research during cooperative learning, students tend to focus on their peers' ideas (Khuluq et al., 2021). However, the group investigation learning model not only allows students' learning outcomes to be seen by their peers but also enables other students to access each other's ideas or opinions. Cooperative learning encourages learning by having students work in small, organized teams to engage in various activities.

The application of the group investigation learning model directs students to conduct inquiries into a specific study drawn from various reference sources such as scholarly journals, books, and online sites. This model's stages are executed by students following several syntaxes (Sumardha et al., 2019; Widyaningsih & Puspasari, 2020). The first stage involves identifying the topic, dividing students into heterogeneous groups. Each group is provided with time and opportunity to investigate the discussed subtopic. The initial step in the group investigation learning process is to select the problem topic to be researched. One technique to comprehend the material is through reading, hence guiding students to seek various sources as references related to the problem topic (Pratami et al., 2019; Situmorang, 2020). The second stage entails planning the discussed subtopic. Each group plans the sources to be used as references for the investigation. Planning activities aligned with the selected subject matter constitutes the second stage of the group investigation learning model. To avoid confusion regarding the subject matter, students must comprehend the lecture materials related to the subject matter they are studying. Students can gain deeper understanding by reading content related to the subtopics they are learning (Lestari et al., 2019; Usmeldi & Amini, 2019).

The third stage involves students conducting an investigation or inquiry and analyzing the gathered information. Engaging in investigations as outlined in the investigation plan is the third stage of the group investigation learning model. Each group is required to conduct research and gather information about the subtopic under discussion during the group investigation phase. To accomplish this, students are guided to read from scholarly journals and textbooks. Students' cognitive capacity can be enhanced by summarizing their work. Each student participates in the investigative process. As they actively participate in the learning process to gain their learning experience, students' active engagement in learning activities can enhance their cognitive capacity. This perspective is supported by other studies emphasizing that learning through the group investigation learning model directs students to independently explore knowledge from various sources, leading to their active engagement in learning (Devi et al., 2021; Disurya & Hamzah, 2022). Subsequently, the fourth stage involves presenting their analysis results, requiring every group member's involvement in presenting their findings. As each student will present their findings to other groups based on their investigation results.

The fifth stage involves presenting the findings of the investigation to the lecturer and other groups. In class, each group delivers their final report. To ensure a strong, concise, and effective presentation of the final report in front of the class, a comprehensive understanding of the subject matter is crucial. Each group is given the opportunity to share their investigative findings in front of their peers, and the groups that are not presenting will provide feedback on the presented group's investigation

outcomes. Subsequently, there's an evaluation stage where students will receive assessments based on their investigation's outcomes and group presentation (Amin, 2019; Usmeldi & Amini, 2019). During this phase, students have the chance to comment on their peer's performance who has just presented their report in front of the class. Each student has an equal opportunity to provide feedback to their classmates. This way, students are trained to appreciate and accept their peers' ideas or opinions.

Every member within a group respects one another; any group can function effectively in this manner. Students' care for their fellow students is one of the benefits of cooperative learning. The group's effectiveness in completing tasks can be influenced by effective communication among its members. The group investigation learning model aims for students to collaborate within their groups. Collaborative habits among students can be cultivated by utilizing the group investigation learning model (Hastuti, 2020; Pertiwi & Muna, 2021). The group investigation learning model can accommodate students in building their social attitudes to be appreciated by others. Understanding the studied material may evoke different reactions from individuals. Students who have a strong understanding of the subject matter are more likely to provide comments and answers related to the subtopics. By expressing their opinions, students' democratic attitudes are enhanced through the group investigation learning model. This is because students work together to explore material related to the discussed subtopic. Engaging in activities helps students retain the information they have learned for an extended period (Devi et al., 2021; Supriyanto & Mawardi, 2020).

Students will actively participate in the learning process and gain understanding through the utilization of the group investigation learning model, thus shifting the focus of learning onto the students with the teacher acting as a learning facilitator. Students will engage with all their ideas or opinions during discussions, and this involvement will influence students' learning outcomes (Ainiyah et al., 2022; Widiyono, 2022). Moreover, this method of teaching combines three important humanistic characteristics, including physical, intellectual, and mental involvement of students. The cooperative group work's outcomes significantly impact the goals of fostering students' mental growth. Students should acquire a mindset and the ability to behave democratically through civic education. Supported by other study students are challenged to think creatively by using the group investigation learning model to find solutions to problematic topics, thereby training them to express their opinions or ideas (Usmeldi & Amini, 2019).

Group discussions among students allow freedom of expression, encouraging them to voice their opinions and eliminate feelings of shyness. In class discussions, students are encouraged to share their knowledge with their peers. The key to the success of these groups is that each student is capable of sharing all ideas and knowledge with their peers about the material they have individually mastered, thereby training them in democratic behavior. Students are required to articulate their thoughts or ideas to their peers and demonstrate how they collaborate within their groups (Fitriani, 2021; Sefriani & Sepriana, 2022). The findings of this research align with previous studies for instance found that using the group investigation model could enhance students' democratic attitudes (Ujipriyati et al., 2019). Additionally, in studies conducted by other, students' interest and learning outcomes could be improved through the use of the group investigation learning model (Amin, 2019; Devi et al., 2021). The research findings indicate that the group investigation learning model influences democratic attitudes.

4. CONCLUSION

The group investigation learning model is known to have an impact on the democratic attitudes acquired from the analysis of elementary school teacher education undergraduate (S1) students at Universitas PGRI Yogyakarta. These results were evident when students were engaged in social interaction activities within the group investigation learning model, involving investigative discussions and the exchange of ideas or opinions among their peers. The author hopes that both schools and higher education institutions can implement the group investigation learning model in their teaching activities to enhance the quality and efficiency of learning, ultimately achieving the maximum educational objectives.

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