



## THE INFLUENCE OF DISCOVERY LEARNING MODELS AND SOLVING SKILLS PROBLEMS WITH PPKn LEARNING OUTCOMES GRADE 4 STUDENTS AT SD KATOLIK DISKI

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### Abstract

*This study is encouraged by the purpose of creating excellence studying findings. Such success depends upon internal and external factors, as one part of the internal factor is problem solution abilities. The existence of problem-solving skills students can more easily overcome problems encountered when learning or designed by teachers.*

*The objective of this research was to find out the comparison of students' PPKn studying outputs between the Discovery Learning pattern and the Think Pair and Share model, also to find out the comparison of PPKn studying outputs of learners who have high problem solving abilities with learners who have low problem solution abilities, and also to know the interaction between the studying pattern and problem solution abilities to the studying outputs of PPKn learners in grade IV of Diski Catholic Elementary School.*

*This study using quantitative approach.*

*The research findings indicated that the findings of ppkn learners with Discovery Learning pattern is higher than the studying findings of PPKn learners with Think Pair and Share model, evidenced from  $Q_{hitung} > Q_{tabel}$  ( $4.34 > 2.81$ ; with a level of 5%). PPKn learning outcomes of students who have high problem-solving abilities are higher than ppkn studying output of learners who have low problem-solution abilities, as evidenced by  $Q_{hitung} > Q_{tabel}$  ( $3.03 > 2.81$ ; with a level of 5%). Here is an interaction between studying models and problem-solving abilities to learners' PPKn studying outputs, as evidenced by  $F_{hitung} > F_{tabel}$  which is  $8.59 > 4.20$ .*

*The study conclusions explains that the instruction outputs of learners who have high and low skills are more suitable to be educated with discovery learning models than learners who are educated employing the Think Pair Share model.*

**Keywords:** *Discovery Learning Models, Troubleshooting Skills, Learning Outcomes*

A. Introduction



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Students' success in achieving learning outcomes varies. The factors that effect students' success in attaining studying outputs are classified into two groups, such as internal and external factors. Internal factors are factors that appear from within learners, including learner physiological (physical) and psychological factors including students' intelligence (intelligence), problem solving skills, desires, attitude, and aptitudes. External factors are factors appearing from outside of learners, including natural and socio-cultural environments, non-social or environments, such as curricula, program, studying facilities, instructor (Kompri, 2016). PPKn studying outputs are indicated by the reach obtained by learners. This achievement is in form of values attained when kids participate in the studying procedure in the classroom.

The interview results with PPKn subject teachers, obtained information about the results of odd semester examinations in PPKn subjects for the 2018/2019 learning year at the Diski Catholic Private SD. From these results there are still quite a lot of students whose scores are below the Minimum Completeness Criteria (KKM). Percentage data from two (2) grade IV SD Katolik Diski are presented in Table 1.1.

Student those who are still under the KKM are given a remedy. From the results of a survey conducted by researchers in January 2019, remedies for students whose grades were still insufficient were only given questions without providing learning material to students who did not understand or master the competencies that had been given. It is better if the implementation of remedies is not only re-examining, but also re-learning, so that competencies that are not understood by students will be well understood. The implementation of remedies requires additional time and will add a new problem when the implementation of the semester schedule ends and changes to the next semester, and teachers are required to immediately complete teaching administration.

The researcher chose to use a learning model *discovery learning* For PPKn learning the theme of the beauty of togetherness in grade IV because in this material students are taught how diversity and differences with the people around them can keep togetherness and can avoid conflicts and disputes that may arise, with the discovery learning model (Discovery Learning), learners are hoped to be able to find solutions to cases that occur.

**Table 1.1. Percentage of Odd Semester Test Values for Class IV PPKn Subjects in Private Catholic SD Diski Academic Year 2019/2020**

Class	≥ KKM	<KKM
IV-A	40%	60%
IV-B	30%	70%

General PPKn learning in grades IV-A and VI-B not optimal, it can be seen of the studying outputs of many learners who are still below KKM. This requires the provision of a learning model so that learning problem solving skills and student learning outcomes increase.

## B. Method

This research was conducted in fourth grade private Catholic SD Deli Murni Diski which is located on Jalan Binjai Km 14.5, Deli Serdang Regency, North Sumatra. The reason for carrying out research in this school is because of the discovery of learning that still uses a teacher centered learning model and the achievement of student learning outcomes under the KKM.

This research will be carried out for 2 months in odd semester of the 2020/2021 school, starting from July up to August 2020. The subject matter chosen in this study is "Beautiful Togetherness" which is the 1st theme in grade IV which is currently being studied in that semester.

Population is the set of all characteristics of the object under study (Mahmud 2011: 154). Populations in this research were all class IV learners of the Catholic Private SD Diski, sums 56 people, with details

- a. Class IV-A: 28 person
- b. Class IV-B: 28 people

This type of research is a quasi-experiment, which aims at seeing the impact of independent variable on the dependent variable, and to determine what here is an effect on the subject, namely students.

The research design used was a two group pretest-posttest design. This research design is the most effective one in terms of explaining a cause and effect correlation. This research included two classes, such as the control class and the experimental class which were provided different treatments. In the experiment class treated with Discovery Learning

learning pattern, and meanwhile, in the control class treated with Think Pair and Share learning model.

### C. Finding and Discussion

#### Student's PPKn Studying Outputs Data Educated Applying Models Discovery Learning (A1)

According to the data founded from the results of the PPKn studying pretest learners who are educated applying the Discovery instruction pattern in attachment 5 and the data of frequency distribution in attachment 6 can be elaborated as follows: the student averagely score was 33.25; Variance = 79.08; Standard deviation = 8.89; maximal value = 50; Minimal value = 17, with a range of values = 33. While data obtained from the findings of the PPKn studying posttest of learners who were educated applying the Discovery studying model is able to be elaborated as follows: 75; Variances = 71.3; Standard deviation = 8.44; maximal value = 93; Minimal value = 57, with a range of values = 36.

The pretest data assessment category PPKn studying outputs of learners who have highly problem solving abilities are educated applying the Discovery learning model can be looked at the table as follows:

**Table 2.1. Categories of Pre-Test Assessment of Student Learning Outcomes Teaching Using Models Discovery Learning (A1)**

No.	Value Interval	The number of learners	Percentage	Rating Category
1	$0 \leq \text{SHB} < 45$	24	85.71%	Very less
2	$45 \leq \text{SHB} < 65$	4	14.29%	Less
3	$65 \leq \text{SHB} < 75$	0	0.00%	Enough
4	$75 \leq \text{SHB} < 90$	0	0.00%	Good
5	$90 \leq \text{SHB} \leq 100$	0	0.00%	Very good

Information: SHB = Score of Learning Outcomes

From the table figured above, the PPKn studying outputs of learners who were educated with the Discovery learning pattern were founded that: there were 24 students or 85.71% of students were in the very poor category. There are 4 people or 14.29% in the less category. There are no students who are categorized as sufficient, good and very good of the studying outputs of learners who are educated applying the Discovery learning pattern. With mean = 33.25 then the average PPKn learning outputs

of learners educated applying the Discovery learning pattern are classified as Very Less.

While the post-test data assessment category PPKn studying achievements of learners who have highly problem solving abilities are educated applying the Discovery learning pattern can be looked at the table as follows:

**Table 2.2. Categories of Post-Test Assessment of Students' PPKn Learning Results Taught Using a ModelDiscovery Learning (A1)**

No.	Value Interval	The number of students	Percentage	Rating Category
1	$0 \leq \text{SHB} < 45$	0	0.00%	Very less
2	$45 \leq \text{SHB} < 65$	3	10.71%	Less
3	$65 \leq \text{SHB} < 75$	11	39.29%	Enough
4	$75 \leq \text{SHB} < 90$	12	42.86%	Good
5	$90 \leq \text{SHB} \leq 100$	2	7.14%	Very good

Information: SHB = Score of Learning Outcomes

From the table figured above, the PPKn studying achievements of learners who were educated with the Discovery learning pattern were founded that: there were no learners or 0% was in the very poor category. There are 3 people or 10.71% in the less category. There are 11 students or 39.29% in the sufficient category. There are 12 students or 42.86% in either category. There are 2 students or 7.14% including the very good category of learner studying outputs educated applying the Discovery studying pattern. With mean = 75. then the averagely PPKn studying outputs of learners educated applying the Discovery studying pattern are classified as Good.

#### **Student's PPKn Studying Outputs Data educated Applying the Think Pair Share (A2) studying Model**

According to the data founded from the results of the PPKn studying pretest learners educated applying the Think Pair Share instruction model in appendix 5 and the data of frequency distribution in attachment 6 is able to be elaborated as follows: the student's averagely score was 30.57; Variance = 70.92; Standard deviation = 8.42; maximal value = 47; The minimal value = 10, with a range of values = 37. While the data attained from the PPKn studying post-test results of learners who are educated applying the Think Pair Share studying pattern is able to be elaborated as : 68.57; Variances = 101.66; Standard Deviation = 10.08; maximal value = 87; Minimal value = 37, with a range of values = 50.

Table 2.3. Pretest and Posttest Data for Experiment Class II (A2)

No.	Statistics	Experiment II	
		Pretest	Postes
1	N	28	28
2	Total Value	856	1920
3	Average	30.57	68.57
4	Standard Deviation	8.421	10.083
5	Variance	70.92	101.66
6	Maximum	47	87
7	Minimum	10	37

The significance of the above displayed variant results is PPKn studying outcomes of learners educated with the Think Pair Share studying model have various or different values from one student to another, for we are able to look at that the variance value exceeds the highest value from the data above.

The findings of the hypothesis provide the conclusion that:

- 1. Student PPKn studying outputs educated with the Discovery Learning pattern were higher than those educated applying the Think Pair and Share model.**

This is in accordance with Bruner's statement (Journal, 2018: 18). Learning through discovery (Discovery Learning) has a good studying concept. The purpose of discovery learning approaches is to give chances for learners to become cases solvers, scientists and historians. That is why, achieving their private goals, group members have to facilitate their teammates to do whatever is needed to takes to make their group successful, and possibly more importantly, encourage the members of one group to put forth their maximal effort. In other words, Rewards group that are emphasized on group performance (or the sum of individual performance) build an interpersonal reward arrangement in which group members will give or block social triggers (such as praise and encouragement) in response to efforts related to group assignments. Thus, one learner and another in the group is able to give the answer in their own way. Without realizing it soon, learners have been doing creative thought practices, for each learner will try to respond problems in a variety of way from his friends, besides that, they pay attention to the quality of the answers given as well. This is also proven by the research of Firosalia Kristin.



**2. The PPKn studying outputs of learners who have highly problem solving abilities are higher than the PPKn studying outputs of learners who have low problem solving abilities.**

This is in accordance with what Ilahi (2016: 184) stated that problem solving skills are one of the implications of applying discovery. Because, this ability indicates that students are able to think solutions in dealing with various problems at hand. This also relates to the student's ability to strive for conveniences that make all difficulties encountered when discovery learning takes place can be solved together. In other words, problem solving skills are able to influence learning outcomes for each student.

**3. There is an interaction between the studying pattern and problem-solving abilities on learner's PPKn studying output.**

As previously analyzed in the background of problem, the strategies employed in the educating and instruction procedure have an impact in deciding student learning outcomes. Which in this case is the Discovery Learning model. In term of providing varied colorful instruction for learners, learners' highly problem solving abilities is able to be shaped and pushed out. Beside the practices and creativity that are hoped in a studying procedure that needs balancing interaction, the intended interaction is the interaction or communication among learners and between learners and educators.

In the studying procedure, it is expected that here will be so many directions of communication that cause the hoped practices and creativity to happen. This surely depends upon the studying tactical employed, for the tactical employed will facilitate show the intended instruction output. In addition, the studying strategy decides whether learners is able to interact among learners only or between students and or to teachers.

As explained above, creativity will be produced when here is communication built in many directions, such as between learners and teachers and also among learners. In this sense, the selection of the Discovery learning pattern is able to facilitate learners to make dialogue in so many directions, with the Discovery learning pattern learners will communicate limited in groups. Thus, this indicates that the studying model applied to learners interacts with problem solving skills on student learning outcomes.

#### **D. CONCLUSION**

According to the study findings that had been founded, as well as the problems that had been stated and formulated, the author makes the conclusions as follows:

1. Students' PPKn studying outputs educated with the Discovery Learning pattern were higher than those educated with the Think Pair and Share model in grade IV of SD Katolik Diski.
2. The PPKn studying outputs of learners who have highly problem solution abilities are higher than the PPKn studying output of learners who have low problem solution skills in grade IV of Diski Catholic Elementary School.
3. Here is an interaction between the instruction pattern and problem-solving skills on student PPKn studying outputs in grade IV SD Katolik Diski.

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