

Improving the Civic Education Learning Participation and Outcomes of First Grade Students through Make-a-Match Type of Cooperative Learning Model

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Abstract—Most students in the 1st grade of elementary school have not participated in the Civic Education learning process actively and their learning outcomes may be still low. This research aims to improve the students' participation and learning outcomes through make-a-match type of cooperative learning model. This study belongs to action research with Kemmis & McTaggart's model conducted through two cycles each of which has two meetings. The subjects were 17 male students and 18 female ones. Data were collected through observation, written test, and documentation. The research instruments were an observation guide and a written test. Qualitative and quantitative analysis were both employed. The results of this study show that (1) the students' participation reaches 62.80% in Cycle I and raises up to 91.42% in Cycle II. (2) Students' minimum accomplishment criteria (*KKM*) for Civic Education in Cycle I are reached by 74.28% of students and improves to 88.57% in Cycle II. These outcomes prove that the implementation of Make-A-Match type of cooperative learning model can improve the first-grade students' learning involvement and outcomes in Civic Education.

Keywords—*participation, learning outcomes, cooperative learning, make-a-match type*

I. INTRODUCTION

Civic Education is one of the compulsory subjects for elementary school (ES) students. Based on the Regulation of the Indonesian Ministry of National Education No. 22 of 2006, Civic Education is a subject focusing on building citizens to understand and perform the right and obligation as the intelligent, skillful, and credible citizens of Indonesia as instructed in Pancasila and the 1945 Constitution of the Republic of Indonesia [21]. It shows that the learning practices of Civic Education aim to inculcate the moral value of students early to prevent them do things on a whim without any responsibility.

The accomplishment of basic competence and learning goals of Civic Education can be measured by their learning outcomes. In fact, students' learning outcomes are still low and their scores in daily test I and II proved it. The results of daily test I on August 19, 2016, showed that 20 of 35 (57%) 1B students' scores are lower than the *KKM* (75). Additionally, the results of daily test II did not show any significant improvement because there are still 19 (54%) students had low scores. Based on the observation carried out for 1 semester, students tended to be passive and uninterested to the learning activities in the class. Many students paid less attention to teacher's explanation, had less concentration, responded none to teacher's questions, could not finish their assignments well, had no willingness to discuss problems with other students, and had no willingness to find information to solve the problems. All of those problems in the class were getting more severe when some students were facing difficulties in concentrating on learning.

The students' passive involvement in Civic Education learning is presumed to be caused by a less varied learning method applied by teachers. Based on the observation on the learning process in the class, it was found that teachers gave less interesting and fun activities for students. In addition, individual assignments are more dominantly applied rather than any group activities so that they got less interaction with other students.

Hence, the teachers should elaborate on the learning process with the right strategies to involve students' active participation not only through the individual but also in-group learning. The research conducted by Khalil and Saar about ES environment in Saudi Arabia supports the opinion that conducive environment where group, students' participation, and

good relationship between students and teachers as well as the good organization will affect the students' character and learning outcomes that they can achieve [9].

One method that actively involves students' in the learning process is a cooperative learning model. The implementation of this model emphasizes on giving students a broader chance and conducive atmosphere to study – which means students can get and elaborate useful insight, attitude, value, and social skills in the real society [5]. Through cooperative learning, students are not only studying and getting knowledge provided by teachers but also learning from or sharing to other students. Effective interaction in learning encourages students to be motivated, confident, and able to use high strategies of thinking, also to build an interpersonal connection [5]. One taken example is make-a-match. It uses card games that children like so much. In this technique, students find the match of the cards while learning a certain concept or topic in a fun way [13]. The use of this technique allows all students to actively involve during the learning process. Moreover, this technique can be applied to all subjects and grades [7].

Based on the explanation above, cooperative learning, especially with Make-A-Match technique needs some development to improve the students' participation and learning outcomes of first-graders in Civic Education subject. Basically, first graders like playing. Make-A-Match technique, which uses cards, is good to be applied to 1st graders because they really love to play cards. The question-cards and the answer-cards can be adjusted for learning materials of Civic Education so that the game can assist students in comprehending the concepts that they have learned before. This is in line with the Question-Answer Relationship (QAR) theory developed by Raphael and Pearson [3]. This technique helps students to find the relationship between questions and answers and to prove the language used to describe the relationship. QAR shows the basic framework in constructing questions and checking students' ability to ask.

Based on the problematic background as explained previously, the need of conducting action research emerges, especially about the improvement of first-grade students' active participation and learning outcomes for Civic Education through Make-A-Match type of cooperative learning model. This research involves 35 students of Class IB at elementary school SD Muhammadiyah Nitikan Yogyakarta and focuses on how to improve the first grade students' participation and learning outcomes of Civic Education by applying Make-A-Match type of cooperative learning model. Along with the research question, this research aims to improve the participation and learning outcomes of Civic Education through the cooperative learning model.

The next parts of this research are compiled as follows. In Chapter 2, the researchers explain the relevant theoretical review for this research. Research instrument and methods are explained in Chapter 3. In Chapter 4, the researchers explicate the results of the study and its discussion. Finally, the conclusions and recommendations for the next research are written in Chapter 5.

II. RELATED WORKS/LITERATURE REVIEW

There was research conducted by Mardati & Wangid to first graders at elementary school SDN Percobaan 3 Pakem in 2013/2014 academic year [11]. Under this study, researchers conducted a research with the same media and technique as proposed by them, but with some development in the type of research, school subject involved, and variables.

Similarly, Triwinarni conducted a research study on second graders at elementary school SDN Demangan Yogyakarta. Her findings show that Make-A-Match type of cooperative learning can improve students' participation and learning outcomes for the Religion subject [21]. Thus, the current research applies the same techniques, make-a-match type of cooperative learning, to improve the Civic Education learning participation and learning outcomes of first graders.

Likewise, Thruston et al. applied cooperative learning for two years for elementary school to high school students in England and found that it improves their cognitive, affective, and social aspects [20]. The current research also applies cooperative learning model but more specifically with Make-A-Match technique for the ES first graders. The expected advantage of this research is cognitive learning outcomes.

III. MATERIAL & METHODOLOGY

A. Data

Data in this study were collected through observation, test, and documentation. The observation aimed to obtain data about the implementation of the learning model and students' participation during the learning process. The tests were written tests in the form of multiple choices. The tests were done after cycle I and cycle II were completed to identify the students' learning outcomes. Documentation was also done to obtain the students learning outcomes.

The instruments for collecting data were the observation guidelines for (1) the learning implementation, consisting of data about teachers' activities during the learning. Data obtained were in the form of the observer's field notes on the teachers' activities in the class. (2) Another observation guideline was for students' question sheets used to obtain the data of learning outcomes for Civic Education through daily tests. The data were scores of

the students' accomplishments at the cognitive domain.

After the process of observation and tests, the data were analyzed by means of qualitative and quantitative approaches. Quantitative data were in the form of (1) scores in observation checklists of learning implementation and students' participation and (2) tests results as students' learning outcomes. Qualitative data were in the form of field notes analyzed by the following techniques: a) tabulation of all obtained data, b) counting the total scores for each aspect, and c) turning scores into criteria. The criteria for students' participation can be seen in Table I.

TABLE I. RANGE OF PARTICIPATION INDICATORS

Scale Interval	Category
32-56	Passive
57-80	less active
81-104	Active
105-128	very active

Meanwhile, the data of learning outcomes obtained from the scores of students' daily tests are calculated by the following formula:

$$N(\text{score}) = \frac{x(\text{total score})}{xi(\text{maximum score})} \times 100$$

The action research considered to reach attainment if (1) 75% of students achieve scores above the *KKM*, and (2) 75% of students are categorized as 'active' or 'very active'.

B. Method

This is collaborative action research, which was adapted from the model of Kemmis & McTaggart consisting of four stages (planning, implementation, observation, and reflection). In the action research, the researchers collaborated with another researcher (an observer) and collaborator (a teacher). The research was done in cycles each of which consists of planning, implementation, observation, and reflection. In details, the steps of in-class action cycle are as follows.

1) Cycle I

Cycle I was done in two meetings with some following steps:

a) Planning

This stage consisted of analyzing the Standard of Competence (SC) and Basic Competence (BC), designing Lesson Plans (LP), and developing the observation guideline, activity book, learning media, and tests.

b) Implementation

This stage was the realization of the lesson plans which were composed in the previous stage with the strategy of emphasizing the active, creative, effective, and fun learning by applying Make-A-Match technique of cooperative learning model.

c) Observation

This stage was done during the implementation stage. The outcome of observation was recordings of what happens in the provided observation sheets.

d) Reflection

In this stage, the collaborating teacher and observer discussed the advantages and disadvantages of the action and determining what to do in the next cycle. In this stage, the researchers also analyzed the data to identify how far the set goal has been achieved so that they can decide what needs to do next.

2) Cycle II

The activities in cycle II resembled revisions of actions determined based on the reflection of cycle I. The next steps in Cycle II are carried out in the same as those in Cycle I. They are planning, implementation, observation, and reflection.

IV. RESULTS AND DISCUSSION

A. Findings

1) Description of Cycle I

The research was conducted in two cycles with two types of treatments in each cycle. It includes planning, implementation, observation, and reflection.

a) Planning

This stage consisted of analyzing the Standard of Competence (SC) and Basic Competence (BC), designing Lesson Plans (LP), and developing the observation guideline, activity book, learning media, and tests.

b) Implementation

In the implementation of the LCs, some steps were carried out in order. They are described as follows.

- (1) Prior Activities: a) Greeting, praying before starting the class, and checking students' attendance; b) apperception and motivation; c) outlining the indicators of BC to accomplish.
- (2) Main Activities: a) Question-answer about rules at home and schools. Previously, students got some tasks to learn the materials at home. b) Explaining materials to students, c) Students are divided into 6 groups: A, B, C, D E, and F, d) Students in group A, C, and E got question-cards and students in group B, D, and F got answer-cards, e) The teacher explained to students that they have to match the cards they got with somebody's in the other group, f) Students were finding their match, g) students reported to teacher if they had done with the task, h) when time is out, students who could not get their partner gathered in a spot, I) students who found their match can sit with their partner, j) each pair of students had to read aloud their cards, the question and answer in turn, while other students

listened to them, k) After all pairs read aloud the cards, students and teacher together concluded and clarified the learning process, l) students and teacher asked one another to clarify the misunderstanding, emphasize some points, or make conclusions, and lastly, m) the teacher reflected on the material.

(3) Closing Activities: the teacher a) assessed students' learning outcomes through evaluation or assignments, b) gave homework, c) informed the materials for the next meeting, d) led the prayer, greeted the students, and got out of the class.

c) *Observation*

In the beginning, the teacher explained the learning materials and how to play Make-A-Match game in detail. The teacher had tried to run the learning process as planned and motivated students to join the activity well.

The results of observation in cycle I carried out in the first and second meeting were in Table II.

TABLE II. THE SCORE OF STUDENTS' PARTICIPATION IN CYCLE I

Score Interval	Category	Frequency	Percentage
32-56	Passive	3	8.57%
57-80	Less Active	10	28.57%
81-104	Active	17	48.57%
105-128	Very Active	5	14.28%

Based on Table II, it can be inferred that after implementing Make-A-Match technique, students' participation in Cycle I is categorized as "active" (34.3%), "very active" (14.3%), "less active" (42.8%), and 0.1% "passive" students. It means the expected level of participation has not been reached. Additionally, students' learning outcomes in Cycle I is depicted in Table 3.

TABLE III. THE PERCENTAGE OF LEARNING OUTCOMES IN CYCLE I

No	Score	Number of Students	Percentage (%)
1.	< KKM (75)	9	25.71
2.	≥ KKM (75)	26	74.29

The students' daily test results in Cycle I as presented in Table 4 show that 26 students (74.29%) achieve a score of ≥75 (or accomplish the KKM) and 9 students (25.71%) could not accomplish the KKM. It means the learning outcomes have not reached the targeted percentage (75%).

d) *Reflection*

The reflection held in Cycle I suggests the following items. (a) The "active" students are 17 (48.57%) and it is still below 75% of the total students. (b) The students with a score of ≥75 (accomplished the KKM) are 26 (74.29%) of all students, and this result has not reached the target of 75% of all students. (c) The needed treatment to

revise the next cycle of this cooperative learning are better grouping, variations on the shape of cards to prevent boredom, personal approach to each student who need more improvement in the test and participation in Cycle I.

2) *Description of Cycle II*

a) *Planning*

The process was similar to that in Cycle I

b) *Implementation*

The implementation of Cycle II was similar to that of Cycle I added with some revisions as mentioned in Reflection of Cycle I.

c) *Observation*

The implementation of Make-A-Match in Cycle II was better than that in Cycle I. The teacher's performance improved. The teacher managed to encourage the students to be more active in the learning process and to create a conducive atmosphere of learning so that the students were more enthusiastic to participate in the stages of learning practices and implement cooperative learning. From Cycle II, the obtained students' participation was recorded as follows.

TABLE IV. SCORE OF STUDENTS' PARTICIPATION IN CYCLE II

Score Interval	Category	Frequency	Percentage
32-56	Passive	0	0.0%
57-80	Less Active	3	8.57%
81-104	Active	21	60.00%
105-128	Very Active	11	31.42%

It is apparent from Table IV that after implementing Make-A-Match technique, the students' participation in Cycle II is categorized as "active" (60.0% students), "very active" (31.42% students), "less active" (8.57% students), and 0% 'passive' students. It means that the expected level of participation has been reached and still need to be improved. The improvement of students' participation from Cycle I to Cycle II can be seen in Table V.

TABLE V. COMPARISON OF STUDENTS ACTIVITY IN CYCLE I AND CYCLE II.

Score Interval	Interpretation	Cycle I	Cycle II
32-56	Passive	8.57%	0.0%
57-80	Less Active	28.57%	8.57%
81-104	Active	48.57%	60.00%
105-128	Very Active	14.28%	31.42%

Based on the data, in Cycle I 14.28% of students categorized as "very active" and 48.57% as "active", so that both altogether make 62.82%. While in Cycle II, 31.42% of students categorized as "very active" and 60.00% as "active", so that in total both reach 91.42% in Cycle II. It means the students' participation in Cycle II has improved by 28.6% compared to that in Cycle I. It shows that the implementation of Make-A-Match type of

cooperative learning can improve the students' participation during the learning process.

Additionally, the students' learning outcomes in Cycle II is depicted in Table VI.

TABLE VI. THE PERCENTAGE OF LEARNING OUTCOMES IN CYCLE II

No	Score	Number of Students	Percentage (%)
1.	< KKM (75)	4	11.42
2.	≥ KKM (75)	31	88.57
	Total	35	100

Based on the data of the daily test in Cycle II presented in Table VII, 31 students (88.57%) achieve a score of ≥75 (accomplish the KKM) and 4 students (11.42%) cannot accomplish the KKM. It means the learning outcomes have passed or surpassed the target (75%). Moreover, as recorded, the improvement of students' learning outcomes in Cycle I and Cycle II can be seen in Table VII.

TABLE VII. THE COMPARISON OF STUDENTS' LEARNING OUTCOMES IN CYCLE I AND CYCLE II.

No	Score	Cycle I	Cycle II
1.	< KKM (75)	9 students	4 students
		25.71 %	11.42 %
2.	≥ KKM (75)	26 students	31 students
		74.29 %	88.57 %

Based on Table VII, the KKM accomplishment in Cycle I is 74.29%, while in Cycle II is 88.57%. It means the outcome has improved by 14.28%. This somewhat proves that the implementation of Make-A-Match type of cooperative learning can improve the students' learning outcomes in Civic Education.

d) Reflection

Reflection in Cycle I was done by discussing the findings in observation and action research in Cycle II. The points are outlined as follows.

- (1) The students' participation improves. It is indicated by the observation results in which the students follow the learning process. Students seem enthusiastic in joining the game until the end, doing individual and group assignments. Additionally, there are 21 (60.00%) students categorized as "active" and 11 (31.42%) students as "very active". It means that more than 75% of students improve better involvement indicated by higher scores of daily test. Thus, this research has been successful in achieving its objective, proving that Make-a-Match type of Cooperative learning can improve the students' participation in learning.
- (2) Students' learning outcomes improve as indicated by 31 (88.57%) students achieving a score of ≥75 (accomplish the KKM) in which it has been more than 75% of all students.

- (3) Make-a-Match type of cooperative learning model can be applied continuously in the learning process and the cycles are considered enough until cycle II.

B. Discussion

The findings of this research show that implementing make-a-match type of cooperative learning for Civic Education has a positive impact on the learning participation and outcomes indicated by significant improvements. It is relevant to Thruston's, et al. [19] who argue that by applying cooperative learning for two years in elementary schools up to high schools in England, students got the advantages in cognitive, affective, and social aspects. It proves that cooperative learning can be applied at any level of education and managed to improve the learning outcomes of students. Similarly, research conducted by Bertucci, et. al. [2] shows that experienced students participating in cooperative learning have higher learning outcomes compared to the inexperienced ones. Gillies and Boyle [6] state that cooperative learning implemented in Australia by 10 teachers of 4th-6th graders can promote students' thought and their learning motivation [6].

The observation results of current research also show that the students' participation improves. Cooperative learning gives students a bigger chance to involve in group works so that the interaction among students is positive. It is relevant to Roestiyah that cooperative learning may offer advantages of (a) giving chance to actively ask and discuss some problems, (b) giving chance to students to have more intensive investigation for solving problems, (c) developing the leadership, (d) allowing teachers to pay more attention to each individual in the class, (e) actively involving students in the learning process and discussion, and (f) giving chance to develop respect other's opinion [20]. Furthermore, the finding of this research is relevant to similar results on make-a-match technique. According to Huda, it (a) can improve students' cognitive and physical participation; (b) is interesting and fun; (c) can enhance the comprehension of materials; (d) boosts students' learning motivation; and (e) trains students' discipline and courage [7].

Lastly, the research conducted by Hwang, Hung, and Chen supports the opinion that learning achievement, motivation, and capability to solve problems are affected by learning method applied to approach [8]. They developed a game to enhance the achievement, motivation, and capability in solving the problems through peer so that they experience the interaction among students. This research manages to promote those aspects.

V. CONCLUSION

Based on the findings and discussion, it can be concluded that:

- 1) The Civic Education learning outcome of the first graders improves significantly after applying Make-A-Match type of cooperative learning model.
- 2) The implementation of Make-A-Match type of cooperative learning model can improve the students' participation in the learning practice of Civic Education.
- 3) The implementation of Make-A-Match type of cooperative learning can enhance the students' cognitive and physical aspects. In addition, this method is fun and able to train discipline and interactive skills both for students and teachers.
- 4) The weaknesses of implementing Make-A-Match type of cooperative learning are (a) having more time to prepare students and stuff, (b) lack of learning guidance so that there will be some students losing their attention, (c) if done continuously, making students bored.
- 5) The suggestion for implementing Make-A-Match type of cooperative learning model are as follows. (a) Other researchers should further examine the effectiveness of the game when applying it in different subjects or themes, (b) teachers should implement it as an alternative learning model for 1st graders.

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