Cooperative Learning Model Make a Match Type Assistance in Crossword Puzzle Games Improves Citizenship Learning Outcomes

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A B S T R A K

Pembelajaran yang menyenangkan dan membuat siswa terlibat aktif dalam proses pembelajaran merupakan tujuan utama dalam pembelajaran, dengan suasana kelas menyenangkan dan aktif. Kenyataannya masih ditemukan siswa merasa bosan dan pasif dalam mengikuti pembelajaran, permasalahan ini akhirnya berimbas pada hasil belajar siswa yang kurang baik. Penelitian ini bertujuan untuk menganalisis model pembelajaran kooperatif tipe make a match berbantuan teka-teki silang terhadap hasil belajar siswa pada mata pelajaran PPKn. Jenis pendekatan dalam penelitian ini eksperimen semu (Quasi-Experimental Design). Subjek penelitian berjumlah 28 siswa. Sampel penelitian diambil dengan teknik Random Sampling. Metode yang digunakan adalah observasi, wawancara, tes, angket dan dokumentasi. Instrumen yang digunakan yaitu tes. Teknik analisis data menggunakan uji-t. Analisis data menunjukan model make a match berbantuan teka-teki silang berpengaruh secara signifikan terhadap hasil belajar siswa, terdapat perbedaan sebelum dan sesudah diberikan tindakan. Disimpulkan bahwa terdapat pengaruh model make a match berbantuan teka-teki silang dapat meningkatkan hasil belajar siswa pada mata pelajaran PPKn. Model make a match berbantuan teka-teki silang dapat membuat suasana kelas menjadi aktif dan menyenangkan.

A B S T R A K

Fun learning and engaging students in the learning process are the main learning goals, with a fun and energetic class atmosphere. Students are still found to feel bored and passive in participating in learning; this problem ultimately impacts poor student learning outcomes. This study aims to analyze the cooperative learning model of the make-a-match type assisted by crossword puzzles on student learning outcomes in Civics subjects. The type of approach in this research is quasi-experimental design. The research subjects totaled 28 students. The research sample was taken by using a random sampling technique. The methods used are observation, interviews, tests, questionnaires, and documentation. The instrument used is the test. Data analysis technique using t-test. Data analysis showed that the make-a-match model assisted by crossword puzzles significantly affected student learning outcomes; there were differences before and after the action was given. It was concluded that there was an effect of the make-a-match model assisted by crosswords to improve student learning outcomes in Civics subjects. With the help of crosswords, the make-a-match model can make the class atmosphere active and fun.

1. INTRODUCTION

Learning outcomes are statements of what is expected of students so that they can know, understand and demonstrate abilities after the learning process is completed. So that student learning outcomes become one of the successes in the learning process (Qomariyah, 2019; Yuliansih et al., 2021). The low student learning outcomes in Civics learning have long been material for thought and a problem for researchers in every process of learning and teaching activities, especially for Civics subjects which are inseparable from philosophical concepts, complicated and complex material, the learning material studied

always changes according to with changes in human life (Boinah, 2017; Widiana et al., 2022). This requires students and teachers to be sensitive to all developments in life situations, especially adjusting between theory and reality that occurs in people's lives. In Civics learning with these characteristics, students generally tend to show an attitude that is less enthusiastic, less enthusiastic, and less ready to accept lessons (Fayza et al., 2021; Komalasari & Rahmat, 2019; Pratiwi & Wuryandani, 2020). The unpreparedness of these students affects the process and learning outcomes. The objectives contained in Civics subjects, learning in madrasas and schools should be an activity that is enjoyable, challenging and meaningful for students (Dewi et al., 2021; Fradila & Dahlan, 2023). However, the above view is contrary to reality. The facts show that Civics is often considered a boring, less challenging activity related to everyday life. The obstacle in learning Civics is due to the lack of packaging of Civics learning with interesting, challenging and fun methods (Hahn, 2015; Swalwell & Payne, 2019). Teachers often convey Civics material as it is. So that learning Civics does not attract students' interest which ultimately results in unsatisfactory student learning achievement.

Based on the results of observations made by researchers at SMPN Satap 1 Candipuro South Lampung. Namely students feel bored and bored, student motivation and interest in learning decreases, low student learning outcomes in the cognitive domain, there are still many students under KKM. Students' involvement in the learning process is not maximized, the learning process is still focused on the teacher. This situation cannot be separated from the learning model used by the teacher, namely the individual learning model and the usual group learning model where the division of groups is not determined based on student abilities but is formed freely so that groups can be homogeneous or heterogeneous. Thus it can make students not motivated in learning and in group work. This situation requires changes in approaches, methods and learning models that are applied so that students are motivated so that they can improve their learning outcomes (Febriyanti & Jayanta, 2018; Reichert, 2021; Sari et al., 2020). For this reason, it is better to try the latest learning models that can improve the quality and effectiveness of learning and are able to invite students to always be active and creative in Civics learning activities. There are several types of cooperative learning, one of which is type *Make a match* which is a type of cooperative learning that can motivate students to study actively, help each other in mastering subject matter by matching questions and answer keys related to learning material (Greenhow, 2016; Schneider, 2018; Wijanarko, 2017b). For this reason, it is necessary to conduct classroom action research to prove that the application of cooperative learning models with types *make a match* crossword puzzle game can improve student learning outcomes in Civics learning. Learning model *make a match* applicable to all subjects and grade levels (Agarwal, 2020; Joag, 2014; Mshayisa, 2020; Zamani, 2021). This method is very liked by students because it is not boring because the teacher provokes students' creativity by using the media. Need to be prepared before starting this lesson are cards. The cards consist of question cards and cards containing answers to these questions. This opinion is in line with teaching and learning techniques looking for partners (*make a match*) developed by Lorna Curran (Ayal et al., 2022; Hendra & Rahayu, 2020; Rahmatunnisa et al., 2020).

This technique is an interesting learning technique to use in repeating material that has been given before. New techniques can also be taught with this strategy with a note that students are given the task of studying the topics to be taught first, so that when they enter class they already have a provision of knowledge of the teaching materials to be studied (Maharani & Kristin, 2017; Wijanarko, 2017b). The steps are; *first*, the teacher prepares several cards containing several concepts or topics that are suitable for review sessions (preparation before tests or exams) (Prabowo et al., 2020; Wijanarko, 2017b). *Second*, each student gets one card. *Third*, Each student looks for a partner who has a card that matches his card. Crosswords are one of those *Game successful* i which is often used and very interesting in the learning process. There are several advantages of *game* education compared to conventional educational methods. One of the main strengths of educational games is the visualization of real problems Cady, 2012; (Hamidah & Simatupang, 2020; Pearson, 2020; Qutieshat, 2022). Crosswords are a game in processing answers in such a way that is known by the people of Indonesia. Crosswords as an option are used in learning evaluation because crosswords are easy for educators to make and do not make it difficult for students to solve them (Chen, 2022; Lottering, 2019; Zamani, 2021). Even so, students must be more careful in giving answers, one wrong letter in answering affects other answers. *Crossword Puzzle* or in Indonesian known as Crossword Puzzles is a model that can motivate students to solve the questions given, which of course is expected that in learning activities students will not feel bored. According *Crossword Puzzle* is a game that can be used as a good and fun learning strategy without losing the essence of ongoing learning, it can even involve active student participation from the start (Kalkan, 2022; Lottering, 2019; Ritonga, 2021). Some research on the application of learning models *make a match* to improve student learning outcomes as has been done (Krisdayati & Kusmariyatni, 2020; Prabowo et al., 2020; Wijanarko, 2017b). Model learning *make a match* can increase motivation and student learning outcomes (Baiduri et al., 2020;

Pratama & Zulherman, 2022). Research on the benefits of using learning games conducted concluded that the use of learning games can increase activity, as well as student learning outcomes (Fauziddin & Mufarizuddin, 2018; Ratminingsih, 2018). It could be one of the solutions that the make a match model assisted by crossword puzzles can be used in the learning process, so that in the teaching and learning process a pleasant atmosphere is created but still in the direction of the expected learning objectives.

The make a match type learning model encourages students to be active and participate in the learning process, by searching, thinking and finding the right partner. In addition, crossword puzzles can hone students to better understand the material which will have an impact on good learning outcomes with the accuracy of the letters of each answer found. Based on the problems and results of previous research, researchers are interested in carrying out research related to the make a match model assisted by crosswords to improve student learning outcomes. The main objective of this study is to analyze the make a match model assisted by crosswords to improve student learning outcomes in Civics subjects at SMPN Satap 1 Candipuro.

2. METHOD

The method in this study used a quasi-experimental research with a one group pretest-posttest design. Quasi-experimental, namely research that verifies hypotheses through manipulation of independent variables and tests changes that occur in manipulation (Hestuaji & WA, 2013). This research was conducted at SMPN Satap 1 Candipuro, South Lampung, Lampung, Indonesia. The subject used was class VIII, which consisted of 28 students. The research sample used random sampling. Research techniques are carried out in several ways to collect relevant data, namely through observation, interviews, tests, questionnaires and documentation. Instrument test used in this study aims to collect data consisting of pretest and posttest questions to find out differences in student learning outcomes before treatment and after treatment in the learning process with the make a match model assisted by crossword puzzles.

Learning outcomes were analyzed using N-gain. However, at the stage before the normality test was carried out as a prerequisite. In addition, hypothesis testing was also carried out to determine significance. Furthermore, it is explained by the normality test, hypothesis, and n-gain. The normality test is used to see the distribution of student scores in one class, whether the pretest and posttest results are normally distributed or not. The SPSS application is used to perform a normality test. This hypothesis test is used to test the hypothesis that has been proposed. Hypothesis testing was carried out with a t-test to find out differences in student learning outcomes between before and after using the make a match model assisted by crossword puzzles. Making decisions for the hypothesis using the criteria for accepting and rejecting the null hypothesis (*Ho)* at a significance level of 5% is if $t_{count} > t_{table}$, because there is no hypothesis (*Ho*) rejected or alternative hypothesis (*Ha*) accepted. But in case $t_{count} < t_{table}$ then the null hypothesis (Ho) is accepted or the alternative hypothesis (Ha) is rejected. The instrument grids used are shown in Table 1.

Table 1. Test Instrument Grid

KD	IPK	Level Kognitif
3.4 Analyzing the meaning and meaning of the 1908 national awakening in the struggle for independence of the Republic of Indonesia	3.4.1 describes the condition of the Indonesian nation before 1908	C3
	3.4.2 describes the pioneers of national awakening in the struggle for independence of the Republic of Indonesia	C4

3. RESULT AND DISCUSSION

Results

The collection of students' cognitive data was held in class VIII of SMPN Satap 1 Candipuro which consisted of 28 students. Data on learning outcomes were obtained from the results of the pretest and posttest to monitor children's understanding during learning. Research data on student learning outcomes scores based on pretest-posttest, showing that the average score of student learning outcomes is far from pretest to posttest. There are students who get grades that have not reached the standard when the treatment has not been carried out after the treatment, many students get satisfactory learning outcomes. From the results of the tests conducted, it was found that the average pretest was 45, while the average posttest score was 75. The test results after being treated using the make a match model assisted

by crossword puzzles had an average score higher than before, there were even students who scored 95. The normality test was carried out on the pretest and posttest data. The pretest and posttest values have a significant value above 0.05 so that the resulting data can be normally distributed showed in Table 2.

Table 2. Pretest and Posttest Normality Test of Student Learning Outcomes

Class	Shapiro-Wilk		
	Statistic	Df	Sig.
Pretest	0.934	28	0.016
Posttest	0.906	28	0.006

The hypothesis put forward by Ho, is that there is no effect of the make a match model assisted by crossword puzzles on student learning outcomes at SMPN Satap 1 Candipuro. Then, Ha, there is an influence of the make a match model assisted by crossword puzzles on student learning outcomes at SMPN Satap 1 Candipuro. The results of the t-test calculations are carried out using the assumption that the two variants are considered the same (equal variances are assumed) in Table 3.

Table 3. Student Learning Outcomes T-Test on N-Gain Data

Student learning outcomes	Levene's test for equality of vaiances		t-test for Equality of Means		
	F	Sig.	T	df	Sig. (2-tailed)
Equal variances assumed	22.142	0.000	-6.223	60	0.000
Equal variances not assumed			-6.223	52.309	0.000

Table 3 shows that the t-value for the same variant is -6.223 with 60 degrees of freedom and a significance value of 0.000. while the t value for df=60 is 1,993. the significance level of the calculated value <0.05 concludes that Ho is rejected Ha is accepted. Therefore, there is a significant effect of the make a match model assisted by crossword puzzles on student learning outcomes at SMPN Satap 1 Candipuro. The increase in student learning outcomes is calculated as the average of the whole class using the n-gain calculation. The results of the pretest and posttest on 28 students experienced an increase in learning outcomes from the n-gain calculation results showing that with a sample of 28 students the n-gain value was 0.52 in the medium category. This means that the make a match model assisted by crossword puzzles significantly improves student learning outcomes.

Discussion

Based on this evidence, it can be concluded that the make a match model is assisted by crossword puzzles. If applied in the learning process has a very good impact on student learning outcomes. Student activeness and participation are needed in learning activities, especially growing student learning motivation which is an important value for an educator, so that students are willing and able to participate in the learning process so that the class atmosphere is not passive and monotonous (Juraini et al., 2017; Prabaningrum & Putra, 2019). Innovations and designs from various learning models from educators are needed to achieve the expected learning objectives and learning outcomes. Not all of the various learning models can be applied, but adapted to the conditions and teaching materials (Munir et al., 2022; Romandhon et al., 2020). An educator must be smart to use various learning models . Centered on students is the key to all learning processes (Ayal et al., 2022; Murtono & Utaminingsih, 2019). The goal is that students are directly involved in the teaching and learning process and can make an impression on students (Murtono & Utaminingsih, 2019; Sinta & Bulkani, 2018). Regardless of the learning model, the selection of teaching media must also be considered in the selection and use.

In research activities when students have not received much treatment from students who are just silent and listen to the teacher's explanation. Without the involvement of students learning and class atmosphere becomes passive. Then the questions were distributed after the teacher finished explaining, the students tended to be lazy and not enthusiastic in solving the questions given by the teacher, as evidenced by the results of the average pretest score. However, it is inversely proportional when the teacher uses the make a match learning model (Murtono & Utaminingsih, 2019; Wijanarko, 2017a). Learning activities involving students proved that students were more enthusiastic both in the learning process and working on problems. The development of learning outcomes is achieved due to the activeness and participation of students in participating in the learning process. According to previous

research make a match model is a learning model that requires all students to be active in the learning process, prepared question cards and answer cards as pairs are given to each group and they work together to find and find pairs that match the questions (Pratama & Zulherman, 2022; Rahmatunnisa et al., 2020; Yesiana et al., 2016).

Learning model *Make a match* is a cooperative learning model that contains game elements in it, namely when looking for pairs of answers on the card. So that students will work more together, be more active and not passive in participating in class learning. This is in accordance with the theory of several studies regarding the application of learning models Make a match to improve student learning outcomes (Greenhow, 2016; Schneider, 2018; Wijanarko, 2017b). The type of cooperative model *make a match* is a group learning model that has two members, each member of the group is not known beforehand but is sought based on similarities in pairs, for example pairs of questions and answers Implementation of an active and cooperative learning model generates student activity and enthusiasm (Prabowo et al., 2020; Yesiana et al., 2016). In other words, the active participation of students has an impact and is directly proportional to learning outcomes. It is proven based on clarification, experimentally and hypothetically showing that there is a large impact on changes in student learning outcomes. In addition to the make a match model which is designed to be fun and active, giving crossword puzzles is very helpful for each student to understand the learning process. Because games in learning eliminate boredom and are able to make students more motivated and able to improve student learning outcomes (Doyle, 2017; Rakimahwati, 2014).

Crossword puzzles are a familiar game for everyone (Lottering, 2019; Yuriev, 2016; Zamani, 2021). This game can be a solution in a more enjoyable learning process. A crossword puzzle consisting of squares both horizontally and downwards for the answers to the questions given (Jones, 2016; Yuriev, 2016). The accuracy of the letters when answering is important because an error in selecting letters results in an incorrect answer in the next question. The integration of this game is very suitable in the learning process to improve student learning outcomes, especially in Civics Education. The use of this game will make students more active, thorough and focused and answer every available question both horizontally and downwards. In contrast, when students have not been treated, the desire and participation of students in participating in learning tends to feel bored, there is no motivation to learn from students. The results of the study show that the use of the make a match learning model assisted by crossword puzzles has an important role in the activity and motivation of students in participating in the learning process, all of which have an impact on the development of learning outcomes. Thus integrating games into the learning process, students will be happier in participating in the learning process and will have an impact on student learning outcomes (Agarwal, 2020; Javid, 2019; Qutieshat, 2022). In addition, crossword puzzles that are inserted as worksheets in completing LKPD are suggestions that students are better able to understand the material presented by the teacher. However, this study still needs to be developed, not all conditions and materials can use the same model and the same crossword game. Making crossword puzzles must be made differently for each subject and material studied, so that learning is effective and efficient. For this reason, teachers must continue to develop their competencies and take advantage of technological developments to make it easier for teachers to manage classes to become active classes. Thus students are able to improve learning outcomes well and have high learning motivation.

4. CONCLUSION

The application of the make a match cooperative model assisted by crossword puzzles in Civics educatioan at SMPN Satap 1 Candipuro was able to improve student learning outcomes. Utilization of learning models and a combination of appropriate and innovative games is able to provide a place for students to actively participate in the learning process. For educators, the application of the make a match model with the help of crosswords is able to create a comfortable and pleasant classroom atmosphere. Finally, students are focused and motivated to follow the learning process and can achieve the expected learning objectives, namely meaningful learning.

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