JPIS (Jurnal Pendidikan Ilmu Sosial)

The Effect of Cooperative Learning Model of The Type Inside Outside Circle and The of Bamboo Dancing On Student's Learning Outcomes

Novia Zalmita*, Dita Indani

Universitas Syiah Kuala, Banda Aceh, Indonesia
Correspondence: E-mail: noviazalmita@unsyiah.ac.id

A B S T R A C T

One of the efforts that can be done to achieve the learning objectives is by applying a learner-centered learning model such as the inside outside circle type cooperative learning model and the bamboo dancing type. Thus, this study aims to see the effect of the type of cooperative learning model inside outside circle and type of bamboo dancing on learning outcomes. The population in this study were students of class VIII SMPN 6 Banda Aceh. Sampling was done by purposive sampling technique by taking only two classes. The research method uses a quantitative approach with the type of experimental research design, none equivalent groups pretest-posttest design. Data were collected through the provision of multiple-choice tests to students. The results showed that tcount > tTable (3.48 > 1.67). Thus Ha is accepted, so it can be concluded that the learning outcomes of students who are taught using the Inside Outside Circle learning model are better than the Bamboo Dancing learning model.

A R T I C L E   I N F O

1. INTRODUCTION

Education has an important role in ensuring the continuity of the future of the nation's life. With education, it will create quality human resources because through this educational process it makes a person learn from not knowing anything to knowing so that they can compete in the current era of globalization. The role of a teacher is an important component in realizing this. Teachers in the context of education have a major role in achieving success in learning, especially regarding the ability of a teacher to manage learning in schools. The teacher is a person who is related to the subject of students, namely students, thus teachers are expected to create a conducive learning atmosphere and learning process so that students actively develop their potential.

The demands of today's developments are highly recommended to use active learning models such as student-centered learning in learning. Especially in learning geography in both junior and senior high schools. Geography studies how the interrelationships of various natural phenomena on earth and the interaction between humans and the surrounding environment are studied through several geographic approaches such as spatial approaches, ecology and regional complex approaches. In addition, geography serves to raise awareness of students in dealing with various environmental problems and play an active role in solving these problems (Zalmita and Yani, 2015; Syapparudin, et al., 2020).

Given the important role of geography in the world of education, it is necessary to apply an active learning model that can foster such thinking. The application of learner-centered learning can be a solution in learning geography. Learner-centered learning is an approach that can be applied to develop student activity in learning. Learner- centered learning places the teacher as a facilitator in meeting the needs of students both in groups and individually and guiding them during the learning process (Emaliana, 2017). Theoretically and pedagogically learner-centered learning is more effectively applied in the learning process compared to teacher- centered learning (Anyanwu and Iwuamadi, 2015). However, the two approaches can still be implemented in learning given the diversity of student characteristics and different levels of education (Emaliana, 2017).

Learner-centered learning has several characteristics, namely (a) students are at the center of the learning process while teachers encourage them to be responsible for their own learning; (b) teachers guide students' learning and intervene only when necessary and; (c) the teacher emphasizes a deep understanding of the content and the processes involved in it (Anyanwu and Iwuamadi, 2015). At this time there are many learner-centered learning models that can be applied in learning in schools, especially in learning geography. One of these models is the cooperative learning model. Cooperative learning is learning where students work and learn together actively in small groups to make it easier to achieve learning objectives (Davidson and Major, 2015; Johnson, et al., 2014).

Almost all research on cooperative learning, from elementary school to university, shows that this learning is able to have a significant influence on students' academic achievement (Fauzi, et al., 2017; Gillies, 2016). Not only that, this learning is proven to be able to increase the tolerance of students towards their friends of different ethnicities, ability levels, and gender. In a more practical level, cooperative learning has different evaluation systems, depending on what methods, approaches, techniques, strategies, and structures are used by the teacher to observe the academic and social processes of students.

The Inside Outside Circle type and the Bamboo Dancing type are types of cooperative models that can be applied in geography learning because they can involve students directly in working together. Both models can make students think quickly and move more actively in learning so that they can express the ideas they want to convey. Based on the explanation of

the background of the problem, the formulation of the problem raised is how the influence of the inside outside circle type cooperative learning model and the bamboo dancing type on learning outcomes. In accordance with the formulation of the problem, this study aims to determine the effect of the inside outside circle type cooperative learning model and the bamboo dancing type on learning outcomes, especially in geography subjects.

2. LITERATURE REVIEW

2.1 Implications of Cooperative Learning on Education

Various learning methods have been developed by educational research experts in an effort to improve student learning outcomes. One of them is the cooperative learning method which is currently highly recommended to be applied in the learning process in schools. Cooperative learning is a strategy used to facilitate students in the learning process where students can work together in small groups (Slavin, 2014). Solve problems (problems) assigned to them, so that they can help each other to achieve learning goals (Johnsosn, et al., 2014; Gillies and Boyle, 2010). Cooperative learning is concerned with framing learner interactions in ways that might increase positive interdependence and promotive interactions (Herrmann, 2013). In addition, cooperative learning is also believed to increase students' motivation and social skills (Slavin, 2014).

Cooperative learning (cooperative learning) is believed to be a pedagogical practice to improve the learning process, higher order thinking styles, social behavior, as well as concern for students who have different backgrounds, abilities, adjustments, and needs (Putro, 2016). From this explanation, it can be concluded that the cooperative learning method is a learning method that guides students who work in heterogeneous groups so that each member works together and helps each other in understanding a learning material or completing a task. In cooperative learning, the teacher acts as a facilitator.

There are five basic principles in cooperative learning activities, which must be applied during the learning process, namely the principle of positive dependence, individual responsibility, face-to-face interaction, participation and communication, group process evaluation (Tran, 2013). In this learning the teacher's role is expected to be able to direct students to form cooperative groups carefully so that all group members can work together to maximize the learning process. In short, cooperative learning refers to a learning method in which students work together in small groups and help each other in learning. The scoring system is usually done to groups and each group gets an award if it shows the expected achievement.

2.2 Inside Outside Circle Type Cooperative Learning Model and Bamboo Dancing Type

Inside-outside circle (IOC) learning model is a learning model developed by Spencer Kagan. Learning model with a small circle system and a large circle that requires students to share information with each other at the same time with different partners briefly and regularly. In short, half of the students form a small circle facing out, the other half form a large circle facing inward, students facing each other share information simultaneously, students in the outer circle rotate and then share information with their (new) friends in front of them. etc.

The IOC learning technique is a learning technique to provide opportunities for students to share information at the same time . This approach can be used in several subjects, such as social science, religion, mathematics, and languages. The learning materials that are most

suitable for use with this IOC technique are materials that require the exchange of thoughts and information between students.

One of the advantages of this technique is the existence of a clear structure and allows students to share information together in a short and orderly manner. In addition, students have many opportunities to process information and improve communication skills and this model can be applied to all grade levels and is very popular especially with children.

Learning using the Inside Outside Circle learning model consists of 5 steps, namely (1) half of the class forms a small circle and faces outward, (2) the other half forms a circle facing a small circle, (3) students from the inner and outer circles pair up and exchange information. , (4) then students in the outer circle shift clockwise and (5) share information with students in the inner circle. Based on the steps of implementing the inside outside circle learning model, it can be concluded that students will participate and be active in the learning process. Each student will have tasks that must be carried out and have responsibilities that must be carried out in collaboration with groups to achieve effective learning goals.

Similar to the previous model, the bamboo dancing type of learning model is one that involves students sharing information and exchanging experiences. This technique is named bamboo dance, because students line up and face each other in a model similar to the two pieces of bamboo used in Filipino bamboo dance. Bamboo dance is a learning model in which students share information with each other at the same time.

This bamboo dance learning model is so that students can share information at the same time with different partners in a short and regular time, this method is suitable for materials that require the exchange of thoughts and experiences between students (Chotijah, et al., 2014). Bamboo dance is a modification of the small circle and large circle due to the limitations of the classroom (Sembiring, 2017). So it can be said that the learning model of the bamboo dancing type is a modification of the inside outside circle, but students are asked to stand facing each other in parallel. This learning model provides opportunities for students to be actively involved in the thought process to share information at the same time.

The Bamboo Dancing learning model is a learning model with its syntax where some students stand in a row in front of the class or on the sidelines of the desks and some other students deal with the first group of students, students who are faced with sharing experiences and knowledge, students who stand at the wrong end one line moves to the other, and returns as information (Chotijah, et al., 2014). Based on the steps in implementing the bamboo dancing learning model, it can be concluded that students will take part in their role and be active in every learning process. Each student will have tasks that must be carried out and have responsibilities that must be carried out in collaboration with groups to achieve effective learning goals.

2.3 Study of Relevant Research Results

Based on the results of previous studies, it was found that the application of the Inside Outside Circle learning model has an influence on student learning outcomes because it can improve learning outcomes (Syaparuddin, et al., 2020). Then the results of other studies obtained that learning Bamboo Dancing can increase motivation (Sidiq, et al., 2019) and student learning outcomes (Fauzi, et al., 2017). Both of these learning models can improve student learning outcomes and have advantages, namely, students can get different information at the same time so that they can increase students' knowledge and make students more active in the learning process. However, the inside outside circle learning model is believed to be superior to the Bamboo Dancing learning model. This is in line with previous research where the average value of the Inside Outside Circle model has the highest success compared to the average value of Bamboo Dancing (Mochammad and Wijaya, 2016).

3. METHODS

This research is a quantitative research with an experimental approach. Quantitative research is research that consists of certain variables wherein the analysis uses data in the form of numbers (numerical) which is processed by statistical methods with the aim of getting the truth of a theory (Das, 1983; Chi, 1997; Nugrahani and Hum, 2014). While experimental research is research that is used to find the effect of certain treatments on an object of research, in other words aims to explain what will happen to certain variables which are carried out in controlled and manipulated conditions (Sidiq, et al., 2019; Purnama, 2016). In this study, there are two research variables, namely the influence variable (Inside Outside Circle learning model and Bamboo Dancing learning model) and the affected variable (learning outcomes). The experimental design in this study used a quasi-experimental design in the form of none equivalent
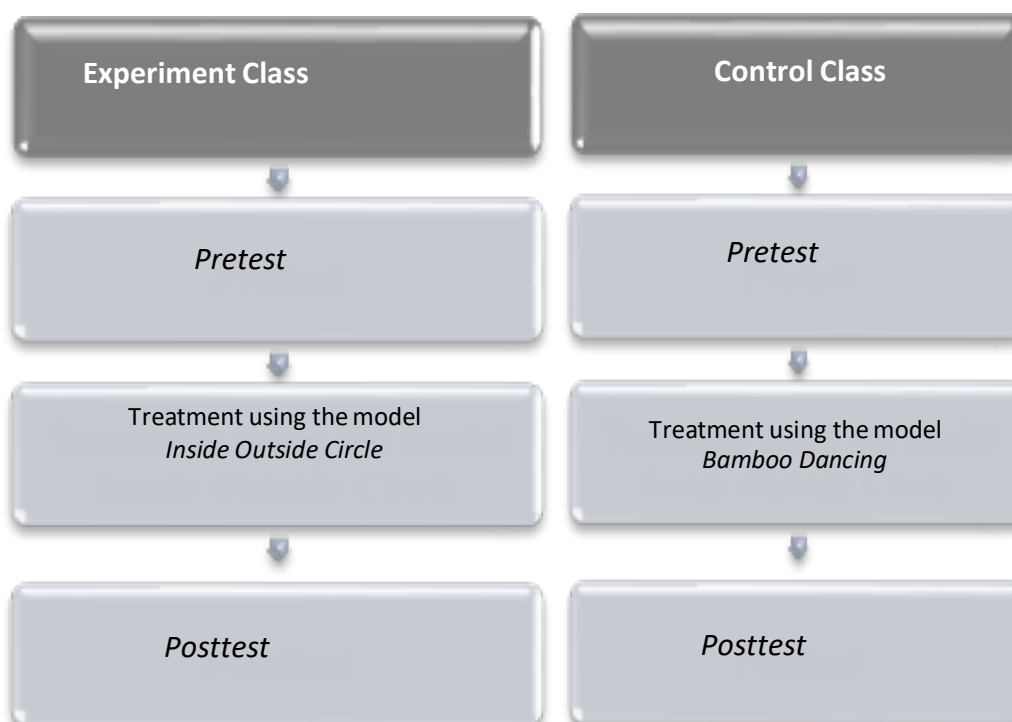

Figure 1. Research Design

Sources: Modified by McMillan, J. dan Schumacher, S. (2001)

groups pretest-posttest design (Mochammad and Wijaya, 2016). The design is described as follows.

This experiment was carried out with the aim of knowing the difference between a treatment for the learning achievement of students at SMP 6 Banda Aceh which was carried out in the even semester of the 2018/2019 academic year. The sample in this study took class VIII-1 taught the Inside Outside Circle learning model and class VIII-2 taught the Bamboo Dancing learning model. The class selection was done by purposive sampling.

This research is carried out by giving tests that must be done by students. In analyzing the research data used quantitative analysis techniques using parametric statistical formulas. Before testing the hypothesis, homogeneity test and data normality test were carried out as a condition for using different tests in knowing the truth of the hypothesis.

4. RESULTS AND DISCUSSION

The data obtained from the results of research that has been carried out at SMP Negeri 6 Banda Aceh are derived from pre-test and post-test data for the experimental class and the control class. The results of the study are presented in Table 1 below.

Table 1. Research result

Class	Test Type	$\bar{x}$	Min	Max
Experiment	*Pretest*	**42.50**	**20**	**55**
	Posttest	**84.61**	**60**	**95**
Control	*Pretest*	**39.28**	**10**	**60**
	Posttest	**76.42**	**50**	**95**

Sources: Research Result, 2019

Based on Table 1. it can be seen that the average value before treatment in the two classes is almost the same and after treatment, the difference is greater than the value before treatment. However, after the treatment, the experimental class and the control class both experienced an increase in learning outcomes. To test the hypothesis, the prerequisite tests must be carried out, namely the homogeneity test and the normality test. The test results are presented in Table 2 and Table 3 below.

Table 2. Experimental and Control Class Homogeneity Test Results

Test type	F_{count}	F_{table}	Conclusion	Information
Posttest control experiment	1.79	1.93	Thank H_0	Homogen

Source: Data Processing Results, 2019

Table 3. Normality Test for Experiment and Control Class

Class	χ^2_{count}	χ^2_{table}	Conclucion	Information
Experiment class	10.416	11.070	Thank H_0	Normal
Control class	10.05	11.070	Thank H_0	Normal

Source: Data Processing Results, 2019

Table 2 show value F_{count} = 1.79 and at the level of significance 5% then $dk_{1(numerator)}$ = n_1–1=26–1=25 and $dk_{2(denominator)}$ = n_2–1=28–1=27 then get F_{Table} = 1.93. Thus it can be said that $F_{count} < F_{Table}$, according to the test criteria then H_0 accepted means that the posttest data of the experimental class and the control class have the same variance or are homogeneous. Table 3 shows the results of the calculation of the normality test in the experimental class and control class using the Chi Square formula where the results obtained are χ^2_{count} experimental

class 10.416 and χ^2_{count} control class 10.05. Next price χ^2_{count} the two classes are compared with the price χ^2_{Table}. At the level of significance 5% and dk=6–1=5 then get the price χ^2_{Table}=11,070. In accordance with the test criteria if $\chi^2_{count} < \chi^2_{Table}$ so H$_0$ accepted, thus it can be said that the data of the experimental class and the control class have data that are normally distributed.

Based on the results of homogeneity and normality testing, hypothesis testing can be continued using a different test (t-test). Based on the calculation obtained the value of t$_{count}$ > t$_{Table}$ or 3,48 > 1,67 at the level of significance 5% (right side test) and dk = 26+28-2 = 52 so that H$_a$ accepted, it means that the learning outcomes of social studies lessons using the Inside Outside Circle learning model are better than the learning outcomes using the Bamboo Dancing learning model.

Based on the results of calculations and data processing that have been carried out, it was found that the learning outcomes of students in social studies using the Inside Outside Circle learning model were superior to those of students using the Bamboo Dancing learning model in class VIII of SMPN 6 Banda Aceh. This is because the Inside Outside Circle learning model can work in pairs with friends so as to make the discussion more effective because there are only two group members and are responsible for the presentation. In the Inside Outside Circle learning model, the grouping of students is done in pairs by forming an inner and outer circle. During the research, students in groups discuss and help solve problems and answer questions given. This allows students to communicate with their friends.

In contrast to the Bamboo Dancing learning model, students are divided into two groups and stand facing each other to discuss the material given to answer the questions given. Although the Bamboo Dancing learning model has weaknesses, it also has several advantages, namely students have the opportunity to discuss with their group friends, increase student responsibility, and also students can rewrite the results of the discussion in their own language. The weakness of this learning model is that only smart students are more prominent in the discussion, and it is difficult to control the discussion because there are too many group members.

Both of these models require the responsibility of each individual. This is clearly seen in the Inside Outside Circle learning model, although working in pairs, each individual is required to be able to convey the results of their partner's work in turn. Likewise in the Bamboo Dancing learning model, namely by conveying the results of their thoughts to their partners.

If viewed from the results of the t-test proves that the Inside Outside Circle learning model is superior to the Bamboo Dancing learning model. This is because the inside outside circle learning model can provide opportunities for students to think, express opinions and respond so as to increase reasoning power, critical power, imagination power and analytical power to a problem presented. The use of the inside outside circle learning model in the learning process can replace the monotonous habit of the learning process and is centered on the content of the book. The use of the inside outside circle learning model emphasizes the teacher as a facilitator and students are led to play an active role in the classroom. The inside outside circle learning model is a learning model with a small circle system and a large circle, where students share information with each other at the same time with different partners in a short and regular manner.

Based on the description above, it is clear that the use of the inside outside circle learning model can improve student learning outcomes compared to the bamboo dancing learning model. The inside outside circle learning model is an alternative to various models that can be applied by teachers in schools in the learning process to improve student learning outcomes.

After conducting research, there are several benefits that can be obtained by researchers who are felt directly after conducting research in the field. Researchers can also directly observe the responses and enthusiasm of students in carrying out the learning process which can understand a little of the character and attitudes of some students during the lesson, of course this can lead to a good relationship for researchers and students in the class.

However, in conducting this research, there are obstacles that may not be avoided. Starting from the limited time that makes the learning process not as effective as expected, and there are also some students who are still less active or not too enthusiastic in carrying out the learning process. Of course this is understandable and can be controlled as well as possible. With this, researchers are also trained to be responsible for classes that are managed so that they run well and of course greatly add experience to activities carried out in the future.

5. CONCLUSION

In accordance with the research objective, namely to determine the comparison of student learning outcomes that are presented using the Inside Outside Circle type of cooperative learning model and the Bamboo Dancing type of cooperative learning model, the results of the study indicate that the acquisition of grades t_{count} = 3,48 and t_{Table} = 1,67. This shows that if t_{count} > t_{Table} (3,48 > 1,67) which is based on the hypothesis test criteria, namely accept Ha if t_{count} > t_{Table} at a significant level 5% and dk = (n_1 + n_2 − 2), then the research data shows that Ha accepted, which means that the learning outcomes of students who are taught using the Inside Outside Circle type of cooperative learning model are better than the Bamboo Dancing type of cooperative learning model in the Integrated Social Studies subject class VIII at SMP Negeri 6 Banda Aceh.

6. RECOMMENDATION

Based on these conclusions, the researchers suggest that educators should in learning activities apply the Inside Outside Circle learning model for material advantages and limitations between spaces and the role of economic actors in the economy because after the experimental results are obtained, they can improve student learning outcomes and for future researchers to conduct research. in more detail, both related to student learning achievements or other matters related to learning outcomes using the Inside Outside Circle and Bamboo Dancing learning models.

7. REFERENCES

Anyanwu, S. U., and Iwuamadi, F. N. (2015). Student-centered teaching and learning in higher education: Transition from theory to practice in Nigeria. *International Journal of Education and Research, 3*(8), 349-358.

Chi, M. T. (1997). Quantifying qualitative analyses of verbal data: A practical guide. *The Journal of The Learning Sciences, 6*(3), 271-315.

Chotijah, S., Maftukhin, A., and Nurhidayati, N. (2014). Pengaruh model pembelajaran tari bambu terhadap kemampuan berpikir kritis dan hasil belajar fisika siswa kelas x SMA NEGERI 1 Sapuran tahun pelajaran 2013/2014. *RADIASI: Jurnal Berkala Pendidikan Fisika, 5*(2), 71-74.

Das, T. H. (1983). Qualitative research in organizational behaviour. *Journal of Management Studies, 20*(3), 301-314.

Emaliana, I. (2017). Teacher-centered or student-centered learning approach to promote learning?. *Jurnal Sosial Humaniora (JSH), 10*(2), 59-70.

Fauzi, M. N., Usodo, B., and Subanti, S. (2017). The effect of make a match (MAM) type model and bamboo dance type model through cooperative learning on students motivation. *Suska Journal of Mathematics Education, 3*(1), 26-32.

Gillies, R. M. (2016). Cooperative learning: Review of research and practice. *Australian Journal of Teacher Education (Online), 41*(3), 39-54.

Gillies, R. M., and Boyle, M. (2010). Teachers' reflections on cooperative learning: Issues of implementation. *Teaching and Teacher Education, 26*(4), 933-940.

Herrmann, K. J. (2013). The impact of cooperative learning on student engagement: Results from an intervention. *Active Learning in Higher Education, 14*(3), 175-187.

Johnson, D. W., Johnson, R. T., and Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in University Teaching, 25*(4), 1-26.

Mochammad, S., and Wijaya, A. (2016). The effectiveness of IOC method by using cue card for students' speaking ability at seventh graders. *Journal of English Educators Society (JEES), 1*(1), 59-69.

Nugrahani, F., and Hum, M. (2014). Metode penelitian kualitatif. *Solo: Cakra Books, 1*(1), 34.

Purnama, S. (2016). Metode penelitian dan pengembangan (pengenalan untuk mengembangkan produk pembelajaran bahasa Arab). *LITERASI (Jurnal Ilmu Pendidikan), 4*(1), 19-32.

Putro, S. C. (2016). Pengetahuan pedagogik dan keteknikan sebagai prediktor kemampuan adaptasi calon guru pada mahasiswa jurusan teknik elektro FT UM. *Teknologi Dan Kejuruan, 39*(1), 1-10.

Seechaliao, T. (2017). Instructional strategies to support creativity and innovation in education. *Journal of Education and Learning, 6*(4), 201-208.

Sembiring, R. (2017). Upaya meningkatkan minat membaca siswa melalui model pembelajaran kooperatif tipe tari bambu pada kompetensi dasar menanggapi isi cerita secara lisan di kelas v sd negeri 068343 Medan Tuntungan. *Bahastra: Jurnal Pendidikan Bahasa dan Sastra Indonesia, 2*(1), 74-79.

Sidiq, U., Choiri, M., and Mujahidin, A. (2019). Metode penelitian kualitatif di bidang pendidikan. *Journal of Chemical Information and Modeling, 53*(9), 1-228.

Slavin, R. E. (2014). Cooperative learning and academic achievement: why does groupwork work?. [Aprendizaje cooperativo y rendimiento académico:¿ por qué funciona el trabajo en grupo?]. *Anales de Psicología/Annals of Psychology, 30*(3), 785-791.

Sukraningsih, N. N. T. A., Ganing, N. N., and Asri, I. G. A. S. (2019). Pengaruh model pembelajaran kooperatif tipe tari bambu berbantuan peta konsepterhadap kompetensi pengetahuan PKn. *Jurnal Ilmiah Pendidikan Profesi Guru, 2*(1), 82-90.

Syaparuddin, S., Meldianus, M., and Elihami, E. (2020). Strategi pembelajaran aktif dalam meningkatkan motivasi belajar pkn peserta didik. *Mahaguru: Jurnal Pendidikan Guru Sekolah Dasar, 1*(1), 30-41.

Tran, V. D. (2013). Theoretical perspectives underlying the application of cooperative learning in classrooms. *International Journal of Higher Education, 2*(4), 101-115.

Zalmita, N., and Yani, A. (2015). Pengaruh model pembelajaran berbasis masalah terhadap keterampilan berpikir kreatif peserta didik pada mata pelajaran geografi di SMAN 2 Bandung. *Jurnal Geografi GEA, 15*(1) 1-8.