

## Developing a Model of Cooperative Learning to Improve Student Learning Outcomes in Pendidikan Agama Islam dan Budi Pekerti for Junior High School Students

Fauziyah

Pascasarjana Universitas Ibrahimy, Indonesia

[fauzeeyah97@gmail.com](mailto:fauzeeyah97@gmail.com)

Taufiqur Rahman

Fakultas Tarbiyah Universitas Ibrahimy, Indonesia

[taufiqurrahman.info@gmail.com](mailto:taufiqurrahman.info@gmail.com)

### ABSTRACT

The selection of the proper learning method will impact the effectiveness of achieving goals. Improper learning will affect student learning outcomes that are not good. This study uses the rapid prototyping method developed by Tripp and Bichelmeyer. The research subjects were 30 students of class IX Junior High School. Data collection techniques used are observation, interviews, tests, and documentation. The problem from this research is how the learning model, the development of learning models, and the effectiveness of the learning model to improve student learning outcomes in PAI subjects?. The result of the research is the guidebook for implementing cooperative learning in the context of Pendidikan Agama Islam. Based on the development process and test results, as well as the assessment of two experts' validation on the guidebook. It can be concluded that the resulting learning model guidebook proved effective in improving student learning outcomes.

### KEYWORDS

cooperative learning,  
learning outcomes,  
pendidikan agama islam.

DOI : 10.35316/ris.v1i2.423  
Corresponding author : [fauzeeyah97@gmail.com](mailto:fauzeeyah97@gmail.com)

### Introduction

Various factors of instructional components determine the success of instruction. These factors are educators, goals, means, and strategies or learning models (Sitti Ruhilatul jannah & Aisyah, 2021). Teachers must be creative and innovative in choosing and implementing learning models to develop an active and fun learning process. A suitable learning model can improve student activities and learning outcomes (Yustian et al., 2018). The use of various instructional methods can be a determining factor for student learning activities in the classroom. Consequently, learning is no longer monotonous and causes students to be inactive and not involved in learning, but learning in class can be effective and enjoyable.

Efforts to overcome the problems in SMP Ibrahimy 3 Sukorejo are to improve the instructions. One is that teachers and students must play an active role in improving instructional quality. Teachers are expected to be engaged in managing and decorating the conditions of the learning environment following the material being taught. Meanwhile, students must actively participate in the learning process, always trying to

understand and digest the material provided. The learning outcomes of research subjects have not been satisfactory. This is presumably due to the low absorption of students in receiving the lessons given by the teacher. The teachers' conventional methods when teaching Islamic Religious Education and Budi Pekerti lessons contribute significantly to students' low internalization of Islamic religious values.

According to the description, it can be stated that learning outcomes are changes in abilities: affective, cognitive, and psychomotor as a result of the learning activities. So, through the application of cooperative learning models, students are expected to make it easier to understand the material so that the learning outcomes obtained can be satisfactory. Therefore, from the problems above, the writer is interested in conducting research in a thesis entitled "Development a Model of Cooperative Learning to Improve Student Learning Outcomes in Pendidikan Agama Islam dan Budi Pekerti for Class IX SMP Ibrahimy 3 Sukorejo".

### **Cooperative Learning**

Cooperative learning is a learning framework that aims to manage learning activities as academic and social experiences (Gillies, 2016; Gillies & Boyle, 2010). This learning model places students in small groups whose members are heterogeneous because, in these groups, students have high, medium, and low achievements and have different backgrounds and ethnicities. So students can help each other learn the subject matter so that all members will carry out the learning process to the maximum (Sitti Ruhilatul jannah & Aisyah, 2021). Compared to learning, a review of this learning model shows that cooperative learning is an effective strategy for increasing student achievement (Gillies, 2016; David W. Johnson & et al, 1981; David W. Johnson & Johnson, 2002; Slavin, 2013). In addition, this learning also has an impact on attitudes (Aghajani & Adloo, 2018; Kyndt et al., 2013), emotional intelligence (Carlos Torrego-Seijo et al., 2021; Goreyshi et al., 2013), motivation (Byusa et al., 2022; Tan et al., 2022) and 21st-century skills (Kocak et al., 2021; Şentürk, 2021).

The key elements for the success of cooperative learning are positive interdependence, individual accountability, face-to-face promotive interaction, teaching the students the required interpersonal and small group skills, and group processing (Dansereau, 1995; Henri, 2018; W. Johnson & T. Johnson, 2019). Positive interdependence is based on the theory of social interdependence (David W. Johnson & Johnson, 2009). This interdependence occurs when a person's learning outcomes are influenced by the results of his efforts and those of others (Lew et al., 1986). There are two interdependencies: positive and negative. The psychological processes of positive interdependence include substitutability (i.e., the degree to which the actions of others can replace a person's action), inducibility (i.e., openness to be influenced and influence others), and positive cothesis (i.e., the outpouring of energy to objects outside of oneself) (Butera & Buchs, 2019; David W. Johnson & Johnson, 2009). The shift from self-interest to mutual interest is one of the positive critical aspects of interdependence (Shimizu et al., 2020) in cooperative learning. This collaboration impacts the use of higher-order thinking, intrinsic motivation, and increased interpersonal relationships and social support (D W Johnson & Johnson, 1989; Shimizu et al., 2021).

The group's success is highly dependent on the efforts of each member (Yager et al., 1986). To create an effective working group, teachers need to structure assignments in such a way that each group member has to complete their own work so that the others can achieve their goals. Group goals and assignments must be designed and communicated to students until they realize they are together to achieve the goals (D'Eon & Zhao, 2022). The presence of teachers in the group work process will increase the effectiveness of group work (Edelbring et al., 2020).

**Individual accountability.** This element is closely related to positive interdependence. Students will feel responsible for doing their best if assignments and learning patterns are made according to the Cooperative Learning model procedure. The key to the success of the group work method is the preparation of teachers in managing the involvement of all students in carrying out assignments (D'Eon & Zhao, 2022).

This accountability arises when the group's success is measured. Cooperative learning aims to form all group members into strong individuals. Individual responsibility is the key to ensuring that all members are strengthened by shared learning activities (Slavin, 1999). That is, after participating in a group study together, group members must be able to complete the same task.

Face-to-face promotive interaction. This element will shape the behavior of students' interpersonal skills, communication, and active participation that underlie the success of cooperative learning (Dzemidzic Kristiansen, 2022; Dzemidzic Kristiansen et al., 2019). The characteristics of promotive interactions are helping each other effectively and efficiently, providing each other with the necessary information and facilities, processing information together more effectively and efficiently, reminding each other, helping each other in formulating and developing arguments, and increasing the ability to insight into the problems at hand, mutually trust, and motivate each other to achieve mutual success.

Each group should be allowed to meet face to face and discuss. This interaction activity will provide learners to form synergies that benefit all members. The thoughts of several people will be more than one person's thoughts. Furthermore, the results of this cooperation are far greater than the sum of the effects of each member. This face-to-face interactive activity will also have implications for interpersonal intelligence (Dzemidzic Kristiansen et al., 2019) between fellow members or face-to-face opponents. This process can be presented with group work or the formation of small groups to achieve general learning objectives or Islamic religious education. The essence of this synergy is to respect differences, take advantage of the strengths and fill each other's weaknesses (Cañabate et al., 2021; Yoshimura et al., 2021).

Students together towards success by sharing and supporting each other. Cognitive activity and interpersonal dynamics only occur when students show a willingness to learn from each other (Yash & Singh, 2011) which includes verbal explanations of how to solve problems, conveying their knowledge to others, discussing concepts being studied, linking past lessons to what is being learned. It is now being studied. Each activity is structured into group tasks. If this is done, it is possible to create cooperative learning groups with an academic support system (each student is committed to helping others) and a personal support system (each student is committed to it).

They are teaching the students required interpersonal and small group skills. Working in groups requires communication or social skills (Bores-García et al., 2021). Before assigning students to groups, teachers need to teach ways to communicate. Not every student has listening skills and the ability to express their opinions. Sometimes learners need to be told explicitly about ways to communicate effectively, such as refuting other people's views without offending the other person's feelings.

Cooperative learning is more complex than individualistic or competitive learning. Because in collaborative learning simultaneously, students are bound by their task of studying teaching materials (academic skills) and their duties as teamwork (Lee Manning & Lucking, 1991). In this situation, there will be conflicts among students (group work and the task of studying teaching materials). Students can overcome this conflict if students are trained. Social skills (leadership, decision making, building trust, communication) about cooperation do not just appear during learning but must be

taught and trained in students as academic skills. If students are trained in social skills, it is not impossible to overcome these conflicts; in this case, students also have conflict management skills, which can be developed to manage other conflicts.

**Group processing.** Through group processing, it is possible to identify the stages of group activities and the activities of group members (Shimazoe & Aldrich, 2010). Who among the group members was most helpful, and who was not. The purpose of group processing is to increase the effectiveness of members in contributing to collaborative activities to achieve group goals. There are two levels of processing, namely small groups and overall classes. The group process occurs when group members discuss to achieve the best group results by always maintaining effective working relationships. The group needs to describe the actions of members that can benefit and harm the group and make decisions about what behavior to continue and change; this shows a continuous improvement process in learning which, in turn, will work together to create an effective group.

This will bring up personal skills (Larraz et al., 2017), including self-awareness and thinking skills. Cooperative learning also adds social interaction elements to learning (Shimizu et al., 2020). In cooperative learning, students learn together in small groups who help each other. Classes are arranged in groups of 4-5 students with heterogeneous abilities. The meaning of heterogeneous groups is that they consist of a mixture of student abilities, gender, and ethnicity. This is useful for training students to accept differences and work with friends from different backgrounds.

### **Pendidikan Agama Islam dan Budi Pekerti**

Pendidikan Agama Islam dan Budi Pekerti is education based on aqidah, which contains the oneness of Allah SWT as the primary source of life values for humans and the universe. Another source is morality, a manifestation of aqidah, which is also the basis for developing the values of the Indonesian nation's character (KEMDIKBUD, 2014).

In terms of educational content, Islamic education and character are the main subjects that become a component that cannot be separated from other subjects aimed at developing the morals and personality of students. So, all subjects that have these goals must be in line with the goals to be achieved by PAI subjects and character (KEMDIKBUD, 2014).

### **Learning Outcomes**

Learning outcomes are the results of educational assessments about the progress of knowledge and student outcomes after carrying out activities or learning in the classroom. So learning outcomes will not be known without evaluating student learning activities' results (Sitti Ruhilatul jannah & Aisyah, 2021).

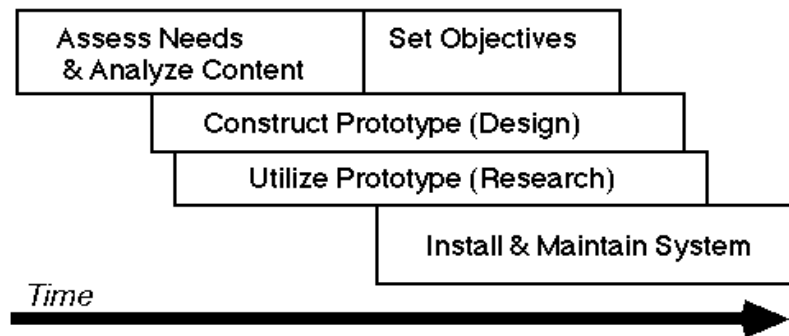
According to Bloom, learning outcomes include cognitive, affective, and psychomotor abilities (Suprijono, 2015). This assessment's learning outcomes are only in the cognitive domain. Meanwhile, according to Benjamin S. Bloom's theory, known as Bloom's taxonomy theory, learning outcomes can be divided into three aspects: cognitive, affective, and psychomotor (Hasan et al., 2017).

### **Methodology**

This study uses the Rapid Prototyping Research Tripp and Bichelmeyer model (1990). Because this research aims to produce a product in the form of a cooperative learning

model guidebook. The research location in this study is the Ibrahimy 3 Sukorejo Junior High School (SMP) Situbondo. This institution is under the auspices of the Salafiyah Syafi'iyah Islamic Boarding School Sukorejo, Sumberejo Village, Banyuputih District, and Situbondo Regency. The samples that the researchers took were students of class IX A SMP Ibrahimy 3 Sukorejo, totaling 30 people.

Figure 1. Model *Rapid Prototyping* Tripp and Bichelmeyer



The instrument used in this research is in the form of a questionnaire with a Likert scale with a weight range of 1 to 5. This instrument aims to measure the feasibility of the prototype being developed. Data collection techniques used in this study were interviews (interviews), questionnaires, learning outcomes tests, observations (observations), and documentation.

Two data analysis techniques are used: learning model analysis and descriptive analysis of quantitative data. The quantitative data in question are product feasibility test data and t-tests to determine the product's effectiveness in improving student learning outcomes with the help of the SPSS 16.0 program.

The formula used for the product feasibility test is:

$$p = \frac{\sum x}{n \times \text{bobot tertinggi}} \times 100\%$$

Information:

$p$  = percentage

$\sum x$  = total score obtained from validator

$n$  = total number of items

To obtain a conclusion from what has been achieved, the following criteria are set:

Table 1. Eligibility Criteria

Tingkat Pencapaian (%)	Kualifikasi	Keterangan
80 – 100	Excellent	No revision/ valid
61 – 80	Very good	No revision/ valid
41 – 60	Good	Revision/ invalid
21 – 40	Fair	Revision/ invalid
0 – 20	Poor	Revision/ invalid

Sources: (Zunaidah & Amin, 2016)

### Results and Discussion

By the research steps of Tripp and Bichel Meyer's model development, this research begins with the first step, namely conducting a preliminary study. The results of the

preliminary research conducted by the researcher are the characteristics of students, obstacles that occur in the implementation of learning, expected behavior, available and needed resources, learning models used, learning conditions for Islamic religious education, and analysis of material characteristics.

The second step is to determine the learning objectives by referring to the KI and KD in the Decree of the Minister of Religion (KMA) Number 183 of 2019 concerning the Islamic Education Curriculum and Arabic Language at Madrasas.

The third step is to determine the prototype of learning activities. By still referring to the characteristics of the cooperative learning model in general, the design of the learning activity type contributing to constructing a knowledge (C2K) is obtained as follows:

1. The teacher provides four reading materials to each group about problems related to the learning material to be studied
2. The teacher divides the class into four groups (presenters, supporters, questioners, and conclusion drawers) by counting in turns from 1 to 4
3. Students gather with other students who have the same number
4. The four groups form a square formation
5. The teacher provides reading materials that the teacher has provided to each group
6. The teacher gives time for all groups to read and observe the material in the student handbook and the reading material that the teacher has given.
7. Each group is asked to examine and analyze the problems that exist in the reading of the text obtained
8. Each group discusses with their respective groups the problems that exist in the readings given and their solutions in everyday life
9. Each group concludes the results of their group discussion to be presented in front of other groups
10. Followed by an extensive group discussion involving other groups to carry out their respective roles as presenters, questioners, rebuttals, and conclude, with details:
  - The group of questioners asks questions (Asking)
  - Presenter answers
  - The rebuttal responds to the presenter's answer
  - Followed by other groups who want to ask questions or respond to previous questions and answers
  - Draw conclusions conclude the results of the discussion
  - Followed by the next group presentation so that it becomes a complete material
11. The teacher provides an evaluation using a test on the material that has been discussed and examples of the application of respectful and obedient behavior to parents and teachers in everyday life.

After the learning design development process, a scripted trial was carried out by consulting with experts, namely learning design experts and media experts. The trial script aims to determine the feasibility of the manuscript to be produced. After revisions are made and feasible, proceed with compiling a final prototype guide.

The quantitative data collected through questionnaires and tests are, first, the determination of the content of the guidelines obtained from learning design experts. Second is the judgment of the design guidelines obtained from media experts. Third, the interesting development of the PAI learning model received from PAI teachers and class IX A students of SMP Ibrahimy 3 Sukorejo. And fourth the effectiveness of the use of guidebooks to achieve the learning objectives obtained from the student learning outcomes of the trial.

From the results of the feasibility test obtained from research design experts, media experts, PAI teachers, and students through a questionnaire with a score between 1 to 5, the following results were obtained:

Assessor	Number of assessed aspects	Number of scores	Ideal score	Percentage (%)	Category
Ahli Desain Pembelajaran	9	38	45	84,444%	Valid
Ahli Media	15	55	75	73,333 %	Valid
Teacher	10	46	50	92%	Valid
Object (30 Students)	5	-	25	Antara 80% - 100%	Valid

While the pretest and post-test learning outcomes data for class IX A SMP Ibrahimy 3 Sukorejo are as follows:

Table 2. Student Achievement *Pretest* dan *Posttest* Class IX A

No	Nama Siswa	Hasil Pretest	Hasil Posttest
1	AAS	70	80
2	ASJ	64	75
3	ANK	75	85
4	AST	68	80
5	ANS	66	78
6	AHA	88	95
7	DPD	63	75
8	DQO	75	85
9	DHA	83	90
10	FZF	80	85
11	FAA	68	78
12	HNI	78	85
13	IFA	85	90
14	IAU	88	90
15	KLS	70	80
16	MJA	80	85
17	NPA	80	90
18	NSN	75	93
19	NSA	85	98
20	NRA	80	85
21	NMF	80	90
22	RAA	66	75
23	RAA	70	85
24	RAD	63	78
25	SDL	76	85
26	SSA	78	85
27	SNK	80	88
28	SJA	80	95
29	YRA	85	90
30	ZFU	60	75
<b>Jumlah</b>		<b>2259</b>	<b>2548</b>
<b>Jumlah Rata-Rata</b>		<b>75</b>	<b>84.933</b>

Source: research data

From the pretest and posttest learning outcomes data for class IX A SMP Ibrahimy 3 Sukorejo, the average obtained is as follows:

Table 3. The average score for *Pre-Test* dan *Post-Test*

Result	N	Mean
Pre-test	30	75
Post-test	30	84.93

Source: research data

By looking at the post-test average or mean, which is greater than the pre-test, it can be said that the cooperative learning model guidebook contributing to constructing a piece of knowledge in PAI subjects is proven to be significantly effective in improving the learning outcomes of class IX students. A SMP Ibrahimy 3 Sukorejo.

However, to be more accurate, in addition to using manual calculations, namely the average calculation, a t-test calculation using the SPSS 16.0 program is also used. Among the steps are:

### 1. Normality

The normality test is calculated through the help of the SPSS 16.0 program. If the value of Sig. the result is less than 0.05, the student learning outcomes before and after using the guide are declared not normally distributed. And if the value of Sig. More than 0.05, then it is considered normal. The results of the normality test are as follows:

### Paired Sample Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 hasil belajar sebelum - hasil belajar setelah	-9.633	35.774	.689	-11.042	-8.224	-13.982	29	.000

Sumber data: SPSS 16.0

From the results of the normality test above, it can be seen that the learning outcomes before and after using the guide resulted in sig values. 0.130 and 0.099. which means both are greater than 0.05. So it can be concluded that the learning outcomes before and after using cooperative learning models contributing to constructing a piece of knowledge are normally distributed. So that it can be continued with the t-test using the paired samples T-test.

### 2. t-test



To see the results of the t-test, use the paired-samples t-test with the help of the SPSS 16.0 program as follows:

### Hasil Perhitungan Uji t Menggunakan SPSS 16.0

#### Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 hasil belajar sebelum	75.30	30	8.014	1.463
hasil belajar setelah	84.93	30	6.470	1.181

*Sumber data: SPSS 16.0*

The t-test calculations in the Paired Samples Statistics table above show a significant difference in the average score (mean) of learning outcomes before and after using the guidebook. Because the score of learning outcomes before using the guidebook is greater than the score of learning outcomes after using the guide, therefore, based on the table above, it can be concluded that an effective blend of learning models can improve student learning outcomes.

#### Paired Samples Correlation

	N	Correlation	Sig.
Pair 1 hasil belajar sebelum & hasil belajar setelah	30	.886	.000

*Sumber data: SPSS 16.0*

Meanwhile, sig values can be generated in the Paired Samples Correlation table. 0.000, which is less than 0.05. Therefore, it can be concluded that the two data (pre-test and post-test scores) have a significant relationship or correlation. Then in the results table sig. (2-tailed) of 0.000 and then compared with a 95% confidence level or an acceptable error rate of 5%, it can be said that there is a significant difference between the pre-test and post-test scores.

The fourth step is the application of the resulting product. After the design process, the procedure for implementing the product in the class determined as the object of research will be described. Among others are:

1. Dissemination of the main product to PAI teachers for class IX A SMP Ibrahimy 3 Sukorejo
2. Main product field test
3. Evaluation of the effectiveness of the product developed with the PAI teacher for class IX A SMP Ibrahimy 3 Sukorejo
4. Revision to produce the final product
5. Dissemination and implementation of developed products.

While the fifth step is the product distribution process, after testing the prototype, it is continued with the process of packaging and printing products that have been developed as a cooperative learning model guide book contributing to constructing a piece of knowledge in PAI learning. At this stage, the learning model guide has been suitable for use by teachers in teaching guidelines, so the guidebook can already be used in PAI learning at Ibrahimy 3 Sukorejo Middle School, especially in class IX-A.

Several factors that support the smooth development of this learning model are as follows:

1. The school's response, principal, curriculum, PAI teachers, and students of SMP Ibrahimy 3 Sukorejo also support and are ready to help in all matters relating to the development of learning models.
2. The relatively ideal number of students makes the field trial process run smoothly. Moreover, students can be directed easily

While some of the obstacles that occurred during the process of developing this learning model guidebook included:

1. The unavailability of PAI learning guidebooks from schools is the initial basis for researchers to develop the old guidebook into a new one.
2. The learning model developed is only applied to one material. This means that it is not tested on other materials because the time for the researcher is very narrow.
3. Each student's ability to receive and absorb material is not all the same. This resulted in the implementation of the group discussion being more extended than planned because the group was said to be successful if all group members had mastered the material.
4. The narrowness of the existing classrooms, so that the cooperative learning process formed in groups is difficult to organize into a formation as specified in the manual.

## Conclusion

Based on the process of developing the learning model and the results of trials of this learning model guide, it can be concluded that based on the results of responses and assessments that have been carried out by two experts, PAI teachers, and class IX A students of SMP Ibrahimy 3 Sukorejo, it can be concluded that these teaching materials can help and make it easier for teachers to create engaging and fun PAI learning and can improve student learning outcomes.

The help of SPSS 16.0 calculations with the t-test on the average pretest and posttest scores for the experimental and control classes confirmed a significant difference between learning outcomes before and after using the guide. Therefore, it can be concluded that the resulting learning model guidebook is proven effective in improving the learning outcomes of class IX A students of SMP Ibrahimy 3 Sukorejo.

## References

- Aghajani, M., & Adloo, M. (2018). The effect of online cooperative learning on students' writing skills and attitudes through telegram application. *International Journal of Instruction*, 11(3), 433–448. <https://doi.org/10.12973/iji.2018.11330a>
- Bores-García, D., Hortigüela-Alcalá, D., Fernandez-Rio, F. J., González-Calvo, G., & Barba-Martín, R. (2021). Research on Cooperative Learning in Physical Education: Systematic Review of the Last Five Years. *Research Quarterly for Exercise and Sport*, 92(1), 146–155. <https://doi.org/10.1080/02701367.2020.1719276>
- Butera, F., & Buchs, C. (2019). Social Interdependence and the Promotion of Cooperative Learning. In *Social Psychology in Action* (pp. 111–127). Springer International Publishing. [https://doi.org/10.1007/978-3-030-13788-5\\_8](https://doi.org/10.1007/978-3-030-13788-5_8)
- Byusa, E., Kampire, E., & Mwesigye, A. R. (2022). Game-based learning approach on students' motivation and understanding of chemistry concepts: A systematic review of literature. *Heliyon*, 8(5), e09541. <https://doi.org/10.1016/j.heliyon.2022.e09541>
- Cañabate, D., Bubnys, R., Nogué, L., Martínez-Mínguez, L., Nieva, C., & Colomer, J.

- (2021). Cooperative learning to reduce inequalities: Instructional approaches and dimensions. *Sustainability (Switzerland)*, 13(18), 10234. <https://doi.org/10.3390/su131810234>
- Carlos Torrego-Seijo, J., Caballero-García, P. Á., & Lorenzo-Llomas, E. M. (2021). The effects of cooperative learning on trait emotional intelligence and academic achievement of Spanish primary school students. *British Journal of Educational Psychology*, 91(3), 928–949. <https://doi.org/10.1111/bjep.12400>
- D'Eon, M., & Zhao, R. (2022). Five ways for facilitators to get a grip on small group learning. *Canadian Medical Education Journal*. <https://doi.org/10.36834/cmej.72949>
- Dansereau, D. F. (1995). The Nuts and Bolts of Cooperative Learning. In *Contemporary Psychology: A Journal of Reviews* (Vol. 40, Issue 7). Interaction Book Co. <https://doi.org/10.1037/003814>
- Dzemidzic Kristiansen, S. (2022). Exploring pupils' and teachers' perspectives on face-to-face promotive interaction in cooperative learning. *Education 3-13*, 50(1), 54–69. <https://doi.org/10.1080/03004279.2020.1833060>
- Dzemidzic Kristiansen, S., Burner, T., & Johnsen, B. H. (2019). Face-to-face promotive interaction leading to successful cooperative learning: A review study. *Cogent Education*, 6(1), 1674067. <https://doi.org/10.1080/2331186X.2019.1674067>
- Edelbring, S., Alehagen, S., Mörelius, E., Johansson, A., & Rytterström, P. (2020). Should the PBL tutor be present? A cross-sectional study of group effectiveness in synchronous and asynchronous settings. *BMC Medical Education*, 20(1), 103. <https://doi.org/10.1186/s12909-020-02018-3>
- Gillies, R. M. (2016). Cooperative learning: Review of research and practice. *Australian Journal of Teacher Education*, 41(3), 39–54. <https://doi.org/10.14221/ajte.2016v41n3.3>
- Gillies, R. M., & Boyle, M. (2010). Teachers' reflections on cooperative learning: Issues of implementation. *Teaching and Teacher Education*, 26(4), 933–940. <https://doi.org/10.1016/j.tate.2009.10.034>
- Goreyshi, M. K., kargar, F. R., Noohi, S., & Ajilchi, B. (2013). Effect of Combined Mastery-Cooperative Learning on Emotional Intelligence, Self-esteem and Academic Achievement in Grade Skipping. *Procedia - Social and Behavioral Sciences*, 84, 470–474. <https://doi.org/10.1016/j.sbspro.2013.06.586>
- Hasan, S., Rakhman, M., & Ardiana, H. (2017). Model Cooperative Learning Tipe Group Investigation Untuk Meningkatkan Hasil Belajar Pada Mata Pelajaran Perawatan Dan Perbaikan Sistem Refrigerasi. *Innovation of Vocational Technology Education*, 7(2). <https://doi.org/10.17509/invotec.v7i2.6293>
- Henri. (2018). *Model, Pembelajaran, dan Model Pembelajaran* (Issue December). Aswaja Pressindo. [http://repository.unpas.ac.id/37102/3/BAB II KAJIAN TEORI.pdf](http://repository.unpas.ac.id/37102/3/BAB%20II%20KAJIAN%20TEORI.pdf)
- Johnson, D W, & Johnson, R. T. (1989). Cooperation and competition: Theory and research. In *Central European*. Interaction Book Company. <https://psycnet.apa.org/record/1989-98552-000%0Ahttp://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Cooperation#2>
- Johnson, David W., & et al. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. *Psychological Bulletin*, 89(1), 47–62. <https://doi.org/10.1037/0033-2909.89.1.47>
- Johnson, David W., & Johnson, R. T. (2002). Learning Together and Alone: Overview and Meta-analysis. *Asia Pacific Journal of Education*, 22(1), 95–105. <https://doi.org/10.1080/0218879020220110>
- Johnson, David W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, 38(5), 365–379. <https://doi.org/10.3102/0013189X09339057>
- KEMDIKBUD. (2014). *Buku Panduan Guru Mata Pelajaran Pendidikan Agama Islam Dan*

- Budi Pekerti untuk SMA, MA, SMK dan MAK*. Badan Penelitian dan Pengembangan Pusat Kurikulum dan Perbukuan, Kementerian Pendidikan Kebudayaan.
- Kocak, O., Coban, M., Aydin, A., & Cakmak, N. (2021). The mediating role of critical thinking and cooperativity in the 21st century skills of higher education students. *Thinking Skills and Creativity*, 42, 100967. <https://doi.org/10.1016/j.tsc.2021.100967>
- Kyndt, E., Raes, E., Lismont, B., Timmers, F., Cascallar, E., & Dochy, F. (2013). A meta-analysis of the effects of face-to-face cooperative learning. Do recent studies falsify or verify earlier findings? *Educational Research Review*, 10, 133–149. <https://doi.org/10.1016/j.edurev.2013.02.002>
- Larraz, N., Vázquez, S., & Liesa, M. (2017). Transversal skills development through cooperative learning. Training teachers for the future. *On the Horizon*, 25(2), 85–95. <https://doi.org/10.1108/OTH-02-2016-0004>
- Lee Manning, M., & Lucking, R. (1991). The What, Why, and How of Cooperative Learning. *The Social Studies*, 82(3), 120–124. <https://doi.org/10.1080/00377996.1991.9958320>
- Şentürk, C. (2021). Effects of the blended learning model on preservice teachers' academic achievements and twenty-first century skills. *Education and Information Technologies*, 26(1), 35–48. <https://doi.org/10.1007/s10639-020-10340-y>
- Shimazoe, J., & Aldrich, H. (2010). Group Work Can Be Gratifying: Understanding & Overcoming Resistance to Cooperative Learning. *College Teaching*, 58(2), 52–57. <https://doi.org/10.1080/87567550903418594>
- Shimizu, I., Kikukawa, M., Tada, T., Kimura, T., Duvivier, R., & Van Der Vleuten, C. (2020). Measuring social interdependence in collaborative learning: Instrument development and validation. *BMC Medical Education*, 20(1), 1–9. <https://doi.org/10.1186/s12909-020-02088-3>
- Shimizu, I., Matsuyama, Y., Duvivier, R., & van der Vleuten, C. (2021). Contextual attributes to promote positive social interdependence in problem-based learning: a focus group study. *BMC Medical Education*, 21(1), 222. <https://doi.org/10.1186/s12909-021-02667-y>
- Sitti Ruhilatul jannah, & Aisyah, N. (2021). Strategi Pembelajaran Kooperatif Guru PAI dalam Meningkatkan Kemampuan Hasil Belajar Siswa. *Pendidikan Islam*, 4(1), 46–53. <https://doi.org/10.29062/ta'lim.v4i1.2181>
- Slavin, R. E. (1999). Comprehensive approaches to cooperative learning. *Theory into Practice*, 38(2), 74–79. <https://doi.org/10.1080/00405849909543835>
- Slavin, R. E. (2013). Cooperative learning and student achievement. In *School and Classroom Organization* (pp. 129–156). Routledge. <https://doi.org/10.4324/9780203056950-5>
- Suprijono, A. (2015). *Coopertive Learning Teori Dan Aplikasi Paikem*. Pustaka Pelajar.
- Tan, L. S., Kubota, K., Tan, J., Kiew, P. L., & Okano, T. (2022). Learning first principles theories under digital divide: Effects of virtual cooperative approach on the motivation of learning. *Education for Chemical Engineers*, 40, 29–36. <https://doi.org/10.1016/j.ece.2022.04.003>
- Tripp, S. D., & Bichelmeyer, B. (1990). Rapid prototyping: An alternative instructional design strategy. *Educational Technology Research and Development*, 38(1), 31–44. <https://doi.org/10.1007/BF02298246>
- W. Johnson, D., & T. Johnson, R. (2019). Cooperative Learning: The Foundation for Active Learning. In *Active Learning - Beyond the Future*. IntechOpen. <https://doi.org/10.5772/intechopen.81086>
- Yager, S., Johnson, R. T., Johnson, D. W., & Snider, B. (1986). The impact of group processing on achievement in cooperative learning groups. *Journal of Social Psychology*, 126(3), 389–397. <https://doi.org/10.1080/00224545.1986.9713601>
- Yash, P., & Singh, M. J. P. (2011). Introduction To Co-Operative Learning. *Indian Streams Research Journal*, 1(2), 1–6. [www.isrj.net](http://www.isrj.net)

- Yoshimura, M., Hiromori, T., & Kirimura, R. (2021). Dynamic Changes and Individual Differences in Learners' Perceptions of Cooperative Learning During a Project Activity. *RELC Journal*, 003368822110127. <https://doi.org/10.1177/00336882211012785>
- Yustian, Y., Asyafah, A., & Firmansyah, M. I. (2018). Efektivitas Model Pembelajaran Role Playing Dalam Meningkatkan Pemahaman Siswa Terhadap Materi Kisah Hijrah Pada Mata Pelajaran Pai Di Smpn 7 Bandung. *TARBAWY: Indonesian Journal of Islamic Education*, 4(2), 126. <https://doi.org/10.17509/t.v4i2.8558>
- Zunaidah, F. N., & Amin, M. (2016). Pengembangan Bahan Ajar Matakuliah Bioteknologi Berdasarkan Kebutuhan Dan Karakter Mahasiswa Universitas Nusantara PGRI Kediri. *Jurnal Pendidikan Biologi Indonesia*, 2(1), 19–30. <http://repository.um.ac.id/id/eprint/60472>